FILED 8/15/2022
DOCUMENT NO. 05440-2022
FPSC - COMMISSION CLERK

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of:

DOCKET NO. 20220048-EI

Review of Storm Protection Plan,
pursuant to Rule 25-6.030, F.A.C.,
Tampa Electric Company.
_______________________________/

DOCKET NO. 20220049-EI

Review of Storm Protection Plan,
pursuant to Rule 25-6.030, F.A.C.,
Florida Public Utilities Company.
_______________________________/

DOCKET NO. 20220050-EI

Review of Storm Protection Plan,
pursuant to Rule 25-6.030, F.A.C.,
Duke Energy Florida, LLC.
_______________________________/

DOCKET NO. 20220051-EI

Review of Storm Protection Plan,
pursuant to Rule 25-6.030, F.A.C.,
Florida Power & Light Company.
_______________________________/

VOLUME 7
PAGES 1256 - 1486

PROCEEDINGS: HEARING

COMMISSIONERS
PARTICIPATING:
CHAIRMAN ANDREW GILES FAY
COMMISSIONER ART GRAHAM
COMMISSIONER GARY F. CLARK
COMMISSIONER MIKE LA ROSA
COMMISSIONER GABRIELLA PASSIDOMO

DATE: Thursday, August 4, 2022

TIME: Commenced: 9:30 a.m.
Concluded: 4:10 p.m.

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

REPORTED BY: DANA W. REEVES
Court Reporter

APPEARANCES: (As heretofore noted.)

PREMIER REPORTING
112 W. 5TH AVENUE
TALLAHASSEE, FLORIDA
(850) 894-0828

INDEX

WITNESSES

EXHIBITS

NUMBER:		ID	ADMITTED
53	As identified in the CEL		1395
103	As identified in the CEL		1395
110	As identified in the CEL		1423

P R O C E E D I N G S

(Transcript follows in sequence from Volume 6.)

CHAIRMAN FAY: All right. We are all set thank you to our technical folks for getting us back on track today. We will now allow Duke to call your witness.

MR. BERNIER: Thank you, Mr. Chairman. As I was saying, I discussed with public counsel, we're going to move Ms. Howe ahead of Mr. Lloyd.

CHAIRMAN FAY: Okay.

MR. BERNIER: Just for scheduling purposes.

Whereupon,

AMY HOWE

was recalled as a witness, having been previously duly sworn to speak the truth, the whole truth, and nothing but the truth, was examined and testified as follows:

EXAMINATION

BY MR. BERNIER:

Q So welcome back, Ms. Lloyd -- Ms. Howe. Sorry about that. You recall that you were sworn the other day and you remain under oath?

A Yes.

Q Thank you. In response to the Commission's order striking portions of Mr. Kollen's testimony, did

you cause to be filed amended rebuttal testimony on August 1st, 2022?

A Yes.

Q And did that amended testimony strike portions of your rebuttal testimony that were responsive to Mr. Kollen's stricken testimony?

A Yes, it did.

Q Thank you. Do you have your amended rebuttal testimony with you here today?

A Yes, I do.

Q Do you have any additional changes to make to your amended rebuttal testimony?

A No, I do not.

Q If I were to ask you the same questions today as are shown in your amended rebuttal testimony, would your answers be the same?

A Yes.

Q Thank you.

MR. BERNIER: Mr. Chairman, I would ask that Ms. Howe's amended rebuttal testimony, dated August 1st, be entered into the record as though read.

CHAIRMAN FAY: It's showed inserted. Thank you very much.

(Whereupon, prefiled rebuttal testimony of Amy Howe was inserted.)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
REVIEW OF STORM PROTECTION PLAN, PURSUANT TO RULE 25-6.030, F.A.C., DUKE ENERGY FLORIDA, LLC.

DOCKET NO. 20220050-EI
REBUTTAL TESTIMONY OF AMY HOWE
ON BEHALF OF DUKE ENERGY FLORIDA, LLC
JUNE 30, 2022

I. INTRODUCTION AND QUALIFICATIONS.

Q. Please state your name and business address.

A. My name is Amy M. Howe. My current business address is 13338 Interlaken Road, Odessa, FL 33556.

Q. Have you previously filed direct testimony in this docket?

A. Yes, I filed direct testimony supporting the Company's SPP on April 11, 2022.

Q. Has your employment status and job responsibilities remained the same since discussed in your previous testimony?

A. Yes.

II. PURPOSE AND SUMMARY OF TESTIMONY.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my testimony is to provide the Company's rebuttal to assertions and conclusions regarding the Transmission specific aspects of DEF's 2023-2032 Storm Protection Plan ("SPP 2023" or "Plan") contained in the direct testimonies of OPC's witnesses Kollen and Mara. Mr. Lloyd and Mr. Menendez will present additional rebuttal of the testimonies of OPC's witnesses.

Q. Do you have any exhibits to your testimony?

A. No.

Q. Please summarize your testimony.

A. My testimony focuses on Witness Mara's and Witness Kollen's testimonies as they relate to Transmission-specific programs and subprograms and rebut the misinformation and incorrect conclusions contained within. In sum, when the Transmission programs are properly understood as an integral part of the overall Plan, which is designed as a holistic approach intended to meet the objectives identified by the legislature in section 366.96 (the "SPP Statute"), it is clear the programs are properly included in the Company's SPP and should be approved. OPC's witnesses' arguments to the contrary demonstrate a lack of understanding of the programs themselves and are based on a narrow interpretation of Rule 25-6.030 (the "SPP Rule") that, in DEF's belief, unnecessarily curtails the scope of the SPP contrary to the legislature's intent. Their testimony should be rejected by the Commission.

Q. In general, do you agree with the overall concerns and points of disagreement with Witness Mara's and Kollen's testimonies expressed by Mr. Lloyd?

A. Yes. I have reviewed Mr. Lloyd's testimony and I completely agree with his general concerns and points regarding Mr. Mara's and Mr. Kollen's novel interpretations of the SPP Statute and Rule and note that many of Mr. Lloyd's points apply with equal force to the transmission programs as they do the customer delivery (distribution) level programs, so I will not repeat those points here. I will therefore limit my points of rebuttal to transmission-specific issues. Additionally, Mr. Menendez provides the Company's rebuttal of ratemaking related concerns, which is an area outside of my responsibility, so I express no opinion on those matters.

Q. [redacted]

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A. [redacted]

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[redacted]

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Q: Are there any other reasons why the configuration of the transmission system is a relevant consideration?

A: Yes. The transmission and distribution systems are integrated and work together to serve our customers. Many industrial and wholesale customers receive electric service straight from the transmission system, specifically at 69kV, which means that any upgrades to the transmission system will directly increase continuity of service and improve overall reliability for those customers. Additionally, service for all customers originates from the transmission system (which acts as a bridge between the generation and the distribution system); therefore, any upgrades to the transmission system will have a positive impact on the overall level of service provided to our customers even if, as described above, due to redundancy reasons a given line is shown as “serving” zero (0) customers.

The BES is the highest voltage portion of the transmission system, consisting of transmission lines and equipment operating above 100kV and serving to transmit large amounts of power throughout the system. The BES is subjected to mandatory reliability standards published and administered by the North American Electric Reliability Council ("NERC") under the authority of the Federal Energy Regulatory Commission ("FERC"). These standards require sufficient redundancy within the BES to allow continued operation even when one or more elements of the system is out of service.

That said, most of DEF's BES assets do not directly serve customers but instead serve as critical infrastructure maintaining power flow within and between DEF, neighboring utilities, and Independent Power Producers.

As a result, failure of a single BES element will often not cause a direct outage to our customers but removes a level of redundancy for the entire BES. Sequential failures within the system can cause significant disruption to power flows and cause extensive customer interruptions as could occur during extreme weather events and therefore it is critical to harden these facilities for extreme weather events and to reliably serve our customers. The BES transmission system is the linkage between the generation facilities to our 69kV system and distribution system that ultimately serves our customers' homes and businesses. Thus, although strengthening the BES may not have a direct impact or quantifiable reduction to customer outages due to the inherent redundancy of the BES, it is a critical component to reliably serving our customers and as such it would defy all logic and sound planning to deny DEF (or any utility) the ability to include such hardening programs and projects in an SPP intended to strengthen the grid as a whole based on an artificial cost-benefit standard that has no support in either the governing statute or rule.

The 69kV transmission lines and equipment are not considered a part of the BES but are transmission lines that deliver power to many of the distribution substations. The level of redundancy, or in this scenario alternate sources, in the 69kV portion of the transmission system, and its ability to withstand an outage of an element of the system without resulting in customer outages, is different from the higher voltage lines within the BES.

DEF's 69kV lines typically run from a circuit breaker in one source substation to a circuit breaker in another source substation, with several distribution substations fed along the circuit in a "daisy chain" fashion. These two sources to the circuit provide a certain level of redundancy. A fault within a segment of such a 69kV line will often result in an outage to the substations and distribution circuits between the circuit breakers, until the faulted section can be identified and the switches along the line opened or closed to isolate the faulted section and restore power to the substations from the un-faulted portions of the circuit.

Q. At the outset, do you have any over-arching concerns with OPC's position in this docket?

A. Yes, I do. I agree with Witness Lloyd in that, while I am not a lawyer (though I note that neither of OPC's witnesses are lawyers either), it appears to DEF that their interpretation of the SPP Statute and Rule is very constricted by limiting SPP eligibility to projects and programs that both decrease outage restoration costs and outages/outage duration. Specific to transmission, the included programs contribute to the systematic nature of the overall Plan that accomplishes these goals, over time, in a cost-effective manner; however, not every program and/or subprogram is intended to reduce *both* restoration costs and outage times. For example, Structure Hardening in its entirety is focused on reduction of outage times and restoration costs, however, the primary benefit of the Gang Operated Air Break ("GOAB") sub-program is reduction of outage times. Of course, by reducing the outage time and sectionalizing the facilities impacted by the extreme weather event inherently there are restoration cost savings that are hard to quantify. That said, DEF simply cannot agree that either the Legislature or Commission intended to exclude any project or program (or sub-program) from inclusion in the Plan because it does not, on its own, accomplish each of the goals identified in the SPP statute and rule.

Q. Have you fully described the transmission programs within the SPP?

A. Yes. The transmission programs have been described in Witness Lloyd's Exhibit BML-1 – Program Descriptions, and further explained in my previously filed direct testimony. In this rebuttal testimony, I will only address the specific contentions raised by OPC's witnesses.

Q. Do the transmission programs put forward under DEF'S SPP meet the requirements of Rule 25-6.030, F.A.C.?

A. Yes, in fact they are the same programs that are included in DEF's currently approved SPP.

Q. In Witness Mara's testimony, he opines that not all of DEF's Storm Protection Plan Programs should be approved by the Florida Public Service Commission. Do you agree with Witness Mara's opinion?

A. No, I do not agree with Witness Mara's opinion; I believe all programs DEF included in its SPP should be approved as they all contribute to the overall efficacy of the Plan. The Plan DEF submitted meets the requirements of the Statute and Rule as it will reduce restoration costs and reduce outage durations during extreme weather events; it does so through a suite of programs that each play a part in achieving the Plan's goals. I will address why I disagree with Witness Mara's opinion regarding each Transmission program and subprogram he discussed and further explain how they meet the requirements of Rule 25-6.030.

Q. Mr. Mara contends the SPP rule requires programs to increase asset strength beyond the original design of the asset being replaced. Do you agree?

A. No, that is not my understanding. While I agree programs that increase strength beyond original design would certainly qualify for the SPP, I am not aware of any such limitation in the Statute or Rule, nor has either of OPC's witnesses cited one. As I understand the Statute and Rule, SPP programs and projects are intended to protect and enhance the system for the purposes of reducing restoration costs, reducing outage times, and improving overall service reliability. Again, though I am not an attorney, it seems logical and consistent with the SPP's goals to include enhancements that, while they may not strengthen facilities relative to the original design, work to arrest the natural weakening or deterioration of those assets, thereby preserving the strength of the facilities so they can better resist the impacts of extreme weather conditions. To DEF, this is a cost-effective means of enhancing the system that will provide real benefits to our customers (as opposed to, for example, simply replacing all transmission facilities).

Examples of sub-programs that protect the strength of the Transmission system and are projected to reduce outage times and restoration costs resulting from extreme weather are Cathodic Protection and Replacing Overhead Ground Wire.

Below, I will further describe both cathodic protection and OHGW subprograms within the Structure Hardening program and how they meet the objectives of the rule as important components of a comprehensive Plan.

Q. Witness Mara states that "hardening means to design and build components to a strength that would not normally be required" and that "aging infrastructure" should not be replaced as part of the Storm Protection Plan. Do you agree with Witness Mara's statement?

A. No, I cannot agree with that assertion because it simply ignores the reality of operating a utility system. Obviously, our system is exposed to the elements all the time, and in Florida those elements can be brutal on utility infrastructure. As a result, "aging" infrastructure not yet at the end of its expected life and therefore still accomplishing its purpose could be replaced with a new component that will simply perform better, thereby strengthening the overall system relative to the status quo, which I believe is the goal of the SPP. A program that includes such replacements (for example, structure hardening and the overhead ground wire replacement sub-program I will discuss later) is properly included in the Plan. To the extent OPC's position relative to inclusion of these types of programs within the SPP is based on cost-recovery concerns (i.e., double recovery of costs in base rates and through the SPPCRC), those concerns are addressed by Mr. Menendez's rebuttal testimony.

Q. Would you agree with Witness Mara's conclusions relative to transmission construction using the NESC (National Electric Safety Code)?

A. On page 7 of Witness Mara's testimony, he states specifically relative to transmission poles: "In transmission system hardening, many utilities are using non-wood poles (steel or concrete) to replace existing wood poles. The upgrade to non-wood poles is not required by the NESC but these non-wood poles have proven to reduce outages and reduce outage times due to the superior ability of the non-wood poles to survive during extreme windstorms." DEF agrees that conversion from wood to non-wood poles has proven to reduce outages and outage times and meets the requirement of the Rule. In fact, all the costs proposed in DEF's SPP related to transmission poles are to replace wood poles with non-wood poles, so Mr. Mara agrees that those costs are properly recoverable under the SPP.

Q. Do you agree with Mr. Mara's assertion that the lattice tower replacement subprogram should be eliminated from the plan?

A. No, absolutely not, nor do I agree with any of the points Mr. Mara relies on in reaching his conclusion. First, Mr. Mara stated "Transmission lines have been required by the NESC to be built for extreme wind events since at least 1977. Failure due to design flaw should not be a SPP activity."[1] However, Mr. Mara chose to ignore, or possibly did not know because he failed to ask, that the lattice towers in question predate 1977, therefore there was no NESC required extreme wind loading standard at the time (by his own admission) and the towers did not suffer from a "design flaw" any more than any component that has been updated over time (or which was built to a given standard that has been subsequently modified). Thus, this support for his conclusion fails.

He continues, "If DEF owns towers that fail to meet strength requirements when constructed, then replacement costs should not be considered an 'upgrade' and therefore should not be funded through the SPP."[2] It is irrelevant whether DEF agrees with this general proposition or not, as Mr. Mara offers it without identifying any such towers, he believes failed to meet strength requirements when constructed. To DEF's knowledge, no such towers exist, nor does he opine that the design *was* flawed, but merely states "if" it was flawed it should not have been accepted and thus cannot be a proper SPP program (again, with no support). Thus, this contention likewise fails.

Mr. Mara's next attempt at supporting his conclusion fares no better as it is simply a repeat of his contention that a program that replaces aging infrastructure should be excluded, though this time stated as an accepted fact rather than a dubious proposition.[3]

Mr. Mara next claims "Replacing towers with new towers that meet the same weather loading condition will not add to resiliency. Rather it simply maintains the status quo in terms of strength." As discussed generally above, this argument ignores reality by seeming

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[1] Mara Testimony, pg. 28, ll. 20-22.

[2] *Id.* at pg. 28, l. 22 – pg. 29, l. 2; *see also id.* at pg. 29, ll. 6-7 ("If the tower design was flawed, it would have been imprudent for DEF to accept the design and construction of the tower in which case the cost should also be excluded from the SPP.").

[3] *See id.* at p. 29 ll. 2-4.

to believe that the resiliency of the system is somehow a static measure that does not change over time, and that somehow a piece of infrastructure should rationally be expected to retain all its strength throughout its service life. While I wish that were the case, it simply is not. In the real world, accelerated change outs of aging infrastructure increases resiliency and reliability as there would be less infrastructure damaged during an extreme weather event, resulting in fewer failures to mitigate and quicker restoration time for DEF customers. Moreover, Mr. Mara fails to recognize that Tower Upgrades are designed to the latest NESC code, which is updated in 5 years cycles. Equipment standards, both internal and external, are continuously reviewed and updated. Thus, new equipment installations include the improvements as part of DEF's updated standards, meaning the towers are not being replaced "like for like" at all.

This subprogram is proper and should be retained.

Q. Witness Mara asserts that deteriorated overhead ground wire is simply an aging infrastructure the replacement of which does not increase strength. Can you please explain what was meant in your testimony by the term deteriorated OHGW and why the subprogram is appropriate for SPP?

A. Yes, but first I would reiterate my points above that programs or subprograms intended to replace aging infrastructure that are not functioning to the level they did when originally installed due to the passage of time and/or because they have simply been performing as designed but cannot realistically be expected to do so indefinitely, are properly included in the SPP.

With that said, Deteriorated Overhead Ground Wire ("OHGW") is static conductor that has lost some of its strength but still performs the designed function, albeit at reduced capacity. Overhead static wire deterioration occurs when the protective galvanization has been sacrificed and static in this condition is more prone to failure. It is known and accepted that all static sizes and material combinations will lose their galvanization and eventually rust, thus reaching the end of life. Not only is the static more susceptible to failure from both wind and lightning events, but the grounding qualities become compromised. Therefore, the OHGW is not "deteriorated" in the sense of having been poorly designed or maintained; rather, it is simply an asset that, if replaced, will strengthen and better protect the system against the effects of extreme weather relative to the state of the system as it exists today. The OHGW is a contributor to CMI and restoration costs during extreme weather events and therefore, its enhancement serves to strengthen the system as intended by the SPP statute and rule.

Q. The Gang Operated Air Break ("GOAB") Line Switch Automation subprogram was addressed by Witness Mara as a subprogram that should not qualify for the Storm Protection Plan as it does not reduce the restoration costs. Do you agree with his assessment?

A. No, I do not agree with Witness Mara's assessment. As stated in Witness Lloyd's testimony, "From DEF's perspective, the Legislature directed the utilities to develop integrated storm protection plans that as a whole are intended to achieve the goals of reducing restoration costs and outage times to customers and improving overall service reliability. DEF's Storm Protection Plan is the sum of its parts with the programs working together to reduce restoration costs and outages times associated with extreme weather events." The GOAB subprogram is a piece of the overall Structure Hardening program that promotes minimal outage time by providing the ability to perform remote sectionalizing to restore the customer. It also provides relay information on the location of the event. Logically, the time for a crew to patrol the line is reduced and in turn, the cause of the event can be addressed without additional outage time to customers. The benefit of greatly reducing the outage time for our customers should not be discounted. In some of DEF's remote areas, this could reduce from hours to minutes to resolve the outage. Minimizing outage time also effectively manages overall cost required to address the cause of the event. Thus, it is DEF's position that the GOAB subprogram has multiple benefits and is a part of the overall reduction in restoration costs projected from the Structure Hardening program.

Q. Mr. Mara contends that the Cathodic Protection subprogram within the Transmission Structure Hardening Program should be excluded from the Plan because it does not increase strength or improve resiliency. Do you agree?

A. No, I do not agree. As discussed above, I think a subprogram that arrests the natural degradation of a component, thereby maintaining its strength for a greater period of time, makes the asset more resistant to the effect of extreme weather and therefore makes the system as a whole more resilient. The Cathodic Protection sub-program meets the requirements of Rule 25-6.030 through the mitigation of the degradation to structure capacity from groundline corrosion and systematic identification of structures that need kitting or replacement. This program aims to cost effectively address corrosion issues across the entire DEF lattice fleet without prematurely replacing the assets, which directly provides reliability benefits by preserving overall system strength on a larger scale than individual asset change-out. The program also installs reinforcement kits on structures with existing groundline corrosion that are in otherwise good health. As Witness Mara correctly notes "When the strength of a tower or structure decays below a certain level, per the NESC, the structure must be replaced or rehabilitated." Restoring groundline capacity of the structure allows the structure to perform as originally designed for a greater period of time at a fraction of the cost to customers compared to structure replacement. In the end, this subprogram reduces restoration time after major storms through verification and preservation of DEF's lattice towers system health, and through mitigation of existing vulnerabilities from ground line corrosion. As a result, I recommend that this sub-program be included in the SPP.

Q. Mr. Mara recommends excluding portions of the Transmission Substation Flood Mitigation Program. Do you agree with his contentions regarding the need for the challenged aspects of the program?

A. No, I do not. First, I would note that all substations were built to the existing standards in the year they were installed. Witness Mara asserts that: "substations built after 1973 should have been designed with the knowledge of potential flood waters and designs should have accounted for this predictable occurrence." The SPP Flood Mitigation program is directed to the substations at the highest risk of flooding per the most current 100-Year Federal Emergency Management Agency ("FEMA") flood plain, which is under continuous review and updated as needed. For example, the FEMA Floodplain map for the coastal area was updated in June of 2020. These flood plain changes can result in substations that were not within the flood plain at construction being "reclassified" such that the original design, which was appropriate at the time, is no longer sufficient. The model established for Substation Flood Mitigation evaluates substations in the flood plain with the potential based on historical data to have at least four (4) feet of flood mitigation, and then DEF resources perform further analytics to ensure the prudency and most cost-effective measure for mitigation.

Q. What is your response to the comment that DEF has not suffered outage time due to flooding of DEF's substations?

A. Witness Mara shared his understanding that DEF has not had any outages due to flooding of its substations in recent years, stating, "there was one instance where sandbags were deployed at a control house but there were no outages." Witness Mara seems to indicate that a 3-year flood history is indicative of a 100-year flood, but substations are built to remain functioning over a prolonged period, so a 3-year window is not sufficient to prudently plan for the long-term functionality and service of the substation (as discussed above, the NESC code is updated regularly while the FEMA flood plain is updated as necessary, both of which can result in changed requirements at specific locations).

I recommend retaining the Substation Flood Mitigation Program in its entirety.

Q. Mr. Mara recommends eliminating the Loop Radially Fed Substation Program from the plan in favor of prioritizing hardening transmission lines through replacing wood structures with non-wooden structures. Do you agree with this approach?

A. No, I do not agree for a couple of reasons. For one thing, accepting what he said regarding the lower rate of failure for hardened structures as true, it does not mean that hardened structures will be able to withstand each and every extreme weather event that may eventually occur. Hence, the looping of radially fed substations (as discussed below) will further harden the system against the impacts of extreme weather events in a cost-effective manner.

The looping of radially fed substations is targeted at specific existing "single point of failure" vulnerabilities. For example, a short 69kV radial tap serves a substation that cannot be isolated and restored through switching if a line fault occurs on that tap. A typical design allows for a slight adjustment to the line route to "loop through" the substation so there is no portion of the transmission line that would prevent restoring power to the substation. Looping through the substation in this manner allows the transmission line to be "sectionalized" by operating switches to isolate a faulted section of the line and to restore the electric supply to the substation in the event of a line outage. Switches installed within the substation can also be equipped with remote monitoring and control more easily than switches located on the transmission line at a distance from the substation.

The ability to isolate events or damage due to extreme weather events allows for reduction of outage times. Restoration costs are reduced because of the ability to quickly restore customers out of service and have a more planned approach to any repairs required versus dedicating resources to first identify and then repair damage in an emergency response.

Q. Mr. Mara recommends eliminating the Substation Hardening Program from the plan indicating that the BCA is only 1%. Do you agree?

A. No, I do not agree. I referred to Exhibit KML-2 and it was unclear how the 1% BCA he refers to was calculated. The 1% BCA does not match Table 1 located in Witness Lloyd's Testimony. Table 1 clearly shows all of DEF's programs have a benefits-to-cost ratio greater than 1, which is inclusive of the Substation Hardening program. As a result, I recommend that this program be included in the SPP.

Q. Describe why the Transmission Substation Hardening Program meets the requirements of Rule 25-6.030, F.A.C.

A. The Transmission Substation Hardening program is intended to upgrade targeted equipment that is generally more vulnerable during extreme weather events to protect the integrity of the grid. Simply put, relays and breakers are needed as a combination to protect the Transmission and Distribution systems to ensure reliable service for our customers. Witness Mara opines that "outages will still occur and therefore the cost to restore will not be reduced." Rather than provide a basis for eliminating the program, this opinion supports the need for the Substation Hardening program. As faults occur on the system, the breakers and relays are relied upon to operate and safely isolate the faulted segment, which reduces outages and outage durations to customers connected to facilities that are not damaged. During extreme weather events, breakers and relays are called upon to operate more frequently and failure to operate, when necessary, would result in longer outage durations for our customers. We also expect that the ability to isolate the faulted segment will also decrease restoration costs by saving time identifying areas of need, thereby allowing DEF's restoration crews to focus efforts appropriately.

Q. Do you agree with Witness Mara that there are no significant performance changes with using modern breakers?

A. No. During extreme weather events, breakers and relays will operate multiple times as the weather affects the transmission and distribution systems. Oil breakers have a limited number of operations especially in circumstances where they are operating numerous times over a short period, such as during extreme weather events. When oil circuit breakers are repeatedly called to operate, they can generate arcing gasses within the oil tank that can accumulate and result in catastrophic failure. Replacement of the breakers with gas or vacuum breakers, upgrades to a faster response time and they can withstand a higher number of operations. Failure to operate fast enough to clear fault currents will activate backup protection systems, potentially leading to a larger outage for our customers.

Q. Do you agree with Witness Mara that def has no choice but to replace electromechanical relays with digital?

A. Not necessarily; DEF does have a choice regarding the timing of the upgrade from electromechanical to digital relays. Electromechanical relays still perform the designed function, and DEF has an available inventory of electromechanical relays it can use, however, they do not offer the additional benefits that I describe below. DEF has implemented electromechanical for electromechanical relay replacements to extend the life of the facility and maintain reliability for our customers. DEF agrees the upgrade of non-communicating electromechanical relays to digital relays provides enhanced monitoring and communication capability and eventually all relays on the system will be upgraded to digital, but to perform that upgrade at this time would be cost prohibitive.

Protection systems (i.e., grouping of relays) are designed to detect and isolate faults or disturbances on the transmission or distribution systems. During extreme weather events, relays are needed to quickly identify the fault thereby limiting the severity and spread of system disturbances and preventing possible damage to equipment. Additionally, some digital relays enable the use of device data to calculate the distance of a line fault allowing for faster identification and restoration. Substation Hardening reduces restoration cost and outage time through the reduced resource time needed to manually patrol the length of the transmission line or facility prior to restoring customers or the BES transmission system.

Q. On June 27, 2022, OPC filed a Motion to Accept Amended Testimony along with amendments to both witnesses' pre-filed direct testimonies. Have you reviewed the amended testimonies, and if so, what impacts do the amendments have on your rebuttal testimony?

A. Yes, I have reviewed the proposed amended testimonies, as well as Mr. Lloyd's response contained in his rebuttal testimony. I fully agree with Mr. Lloyd and also believe that, because OPC's witnesses' testimonies continue to include their faulty reasoning and conclusions, as I have discussed in the foregoing testimony, it is important to present the Company's response as it pertains to the Transmission specific portions of the Plan.

III. CONCLUSION

Q. Mrs. Howe, your rebuttal covers a lot of ground, but did you respond to every contention regarding the Company's proposed plan in your rebuttal?

A. No. Intervenor testimony on the SPP involved many pages of testimony and I could not reasonably respond to every single statement or assertion and, therefore, I focused on the issues that I thought were most important in my rebuttal testimony. As a result, my silence on any particular assertion in the intervenor testimony should not be read as agreement with or consent to that assertion.

Q. Does this conclude your testimony?

A. Yes.

MR. BERNIER: We will waive witness summary and I'll tender the witness for cross.

CHAIRMAN FAY: Okay. Great. Thank you. Mr. Rehwinkel.

MR. REHWINKEL: Thanks, Mr. Chairman.

EXAMINATION

BY MR. REHWINKEL:

Q Good morning.

A Good morning.

Q Good morning, Ms. Howe, and good morning, Commissioners. Give me one second. Would you mind turning to your revised rebuttal testimony on page seven? And I would direct you to lines 1 through 10, if you could review that paragraph.

A Did you want me to read it?

Q Just read it to yourself. I want to ask you specifically about lines 12 through 15.

MR. BERNIER: I'm sorry. Mr. Rehwinkel, is that page seven?

MR. REHWINKEL: Yes.

MR. BERNIER: Thank you.

THE WITNESS: Okay.

BY MR. REHWINKEL:

Q Thank you. Do you have a copy of the statute and the rule with you?

A   Yes, I do.

Q   Okay. On lines 12 through 15, you make the statement, that said, DEF simply cannot agree that either the legislature or Commission intended to exclude any project or program or subprogram from inclusion in the plan because it does not, on its own, accomplish each of the goals identified in the SPP statute and rule. Did I read that right?

A   Yes, you did.

Q   Okay. So would you mind turning to the rule, please, 25-6.30 and turn to subparagraph (3)(b).

A   Okay.

Q   Would you agree with me that (3)(b) says, a description of how implementation of the proposed storm protection plan will reduce restoration costs and outage times associated with extreme weather conditions before improving overall service rollout -- therefore improving overall service reliability?

A   Sorry. I've read that somewhere, but I didn't think it was (3)(d), but I'm with you.

Q   Did I say D? If I said D, I meant B, as in boy.

A   Okay.

Q   Do you want me to do that again?

A   No, but I'm with you.

Q Okay. So wouldn't you agree that the -- that it says reduced restoration costs and outage times?

A Yes, I see that there.

Q And then if you look in B, under that same section three, there is a statement where it says a description of each proposed storm protection program that includes, then under one, a description of how each proposed storm protection program is designed to enhance the utility's existing transmission and distribution facilities, including an estimate of the resulting reduction in outage times and restoration costs due to extreme weather conditions.

A I see it.

Q Okay. So, reading those together, you still believe what's stated in your testimony on line seven -- I mean, on lines 12 through 15 on page seven?

A Yeah. So obviously, when we went through those we were just reading a few sections within the statute and the rule. My belief, the company's belief is that the comprehensive storm protection plan needs to meet the reduction and restoration costs and the reduction in restoration minutes for our customer. And our programs, both for transmission and distribution, although I am here talking about transmission, those comprehensively together are providing the reduction and restoration outages and costs for our customers at the benefit of our customers.

Q Okay. So you're not retroactively reading into the rule and -- or where there's an and, are you?

A I did got to school and do logics, so I hear what you're saying. But, again, I believe that the plan overall needs to meet the intent of reducing restoration costs and outages.

Q Okay. And that's an interpretation of the rule by you and the company, right?

A That is Duke's position on what the plan entails.

Q Okay. And do you have the statute with you?

A I do.

Q Okay. I want to direct you to 366.96, subsection three. And I want to see if you agree with me that it reads, each public utility shall file, pursuant to Commission rule, a transmission and distribution storm protection plan that covers the immediate 10-year planning period. Each plan must explain the systematic approach the utility will follow to achieve the objectives of reducing restoration costs and outage times associated with extreme weather events and enhancing reliability. Was that an accurate reading?

A   Yes, it was.

Q   So would your answers about the and, in that second sentence there between restoration costs and outage times, would it be the same as you gave on the rule?

A   Yes, our storm protection plan does both reduce restoration costs and outages for our customers.

Q   Okay. If I could get you to turn to page 13 of your rebuttal testimony. I can say your revised rebuttal testimony. Lines 20 --

MR. REHWINKEL: Excuse me, Mr. Chairman. I have a pagination error on my question.

Mr. Chairman, if you'd give me a second, my questions are pegged to be original file and my pagination is off. So let me make sure my question is to the revised.

CHAIRMAN FAY: Okay.

MR. REHWINKEL: I apologize. I'm back on track.

CHAIRMAN FAY: Both copies, you're comfortable that it's not any stricken material?

MR. REHWINKEL: Yes. Yes, I am.

CHAIRMAN FAY: Okay.

BY MR. REHWINKEL:

Q So I want to direct you, again, to your revised testimony, but instead of 13, page 14, please, and get you to go to lines four and five. You use the word integrated on line five. Do you see that?

A Yes, I do.

Q Okay. I know you're quoting from Mr. Lloyd's testimony, but can you point me to where in the rules or the statutes that we just talked about, the legislature or the Commission use the term integrated?

A No.

Q Is that because it doesn't exist in the rule or the state?

A I actually don't know if that word is in there. What was intended by the word, though, is that it's an integrated plan, both from a transmission and then the distribution perspective, as well as the plan overall reduces restoration costs and outages for our customers.

Q So let's go --

MR. REHWINKEL: I apologize, Mr. Chairman. I did not realize the pagination had shifted.

MR. BERNIER: And I apologize, Mr. Rehwinkel. I didn't think it had. That's on me. I apologize.

BY MR. REHWINKEL:

Q Okay. I'm going to go -- ask you to turn in

your revised testimony to --

MR. REHWINKEL: Let me stop before I ask this question and just ask a logistical technical question. Is it -- is the testimony that's going to be inserted into the record going to be what I call the revised testimony that has the strikes and the pagination and lines will be that versus what was originally filed?

CHAIRMAN FAY: Yes, it will be the updated. And so if you want to reference it, I mean, there are questions, if you're pointing to specific testimony, you could reference the question. I don't know how many questions related to the lines you have, but then that would allow us, I think, to follow up appropriately if those lines don't match up.

MR. REHWINKEL: Okay.

CHAIRMAN FAY: I know you would love to go through both of them and try to match them up at this point, but I think for efficiency purposes, probably if you can just point us to where that line or direction is coming from, then the record will reflect that.

MR. REHWINKEL: Yeah, I have no desire to go through both. I just want to make sure my questions point to the -- what's going to be in the record when the transcript --

CHAIRMAN FAY: That's a good question. We want to make sure we reference the right line.

MR. REHWINKEL: Thank you. Okay. So I think for this these questions, page eight starting on line 18, appearing over to page nine -- Mr. Chairman, give me a second because there is not the right correlation between the two. Can we take a break off the record for a second? I apologize.

CHAIRMAN FAY: Sure. We'll give you five and then just let me know if you need more time.

MR. REHWINKEL: Okay. Thank you.

(Brief recess.)

CHAIRMAN FAY: We are back. Mr. Rehwinkel, you are recognized.

MR. REHWINKEL: I think we have a little bit of housekeeping to do, Mr. Chairman. I've talked to counsel for Duke and -- Public Counsel is very well-aware of the scramble that ensued once the order striking testimony came out. People put information in these revised legislative format documents in, and I believe that there may have been an inadvertent formatting error that has caused this issue. So I have adjusted my questions to the new pagination and line and I'm ready to go. We'll go through the cross. I think Ms. Howe has some very important family business to attend to this afternoon, and we want to make sure she does, but I would propose that after we're done we propose some housekeeping solutions to make sure that we're -- the record is protected.

CHAIRMAN FAY: Okay. And what we'll do, once we finish with Ms. Howe, we'll break for lunch. We'll allow that time to clear up any confusion that we may have. And then when we come back to this afternoon, we'll be able to move swiftly and finish the rest of witnesses and get folks on their way. Okay. You're recognized.

MR. BERNIER: And I appreciate that, Mr. Chairman. Apologies. That's on me.

CHAIRMAN FAY: I appreciate the lawyers just working collaboratively to resolve this. There are, you know, a number of firsts in the operation of this and we want to protect the record, and from all respects, and so this needs to be right. So when we get back this afternoon, we'll make sure we have it right. Thank you.

BY MR. REHWINKEL:

Q You are a registered professional engineer in

Florida, right?

A Yes, I am.

Q And as a professional engineer and employee at Duke, you have a duty to protect the public, is that right?

A Yes, I do.

Q If a transmission structure is weakened over time and no longer meets the required strength requirements, does DEF have a duty to protect the public and replace the structure to make it safe?

A Yes. We have an obligation to meet the -- to protect our customers should there be a weakening.

Q Okay. And so regardless of the existence of the SPP, DEF -- you would agree that DEF has a duty to replace aged and weakened infrastructure?

A Yes, we do have inspection programs that we utilize to ensure the safety of the public.

MR. REHWINKEL: I apologize, Mr. Chairman. I have run into another snag with this. I just -- if I can I have one second.

CHAIRMAN FAY: Sure, Mr. Rehwinkel.

BY MR. REHWINKEL:

Q Okay. If I could get you to turn to page 10, starting on line three. You state, as a result "aging" infrastructure, but not yet at the end of expected life

and, therefore, still accomplishing its purpose could be replaced with a new component that would simply perform better, thereby strengthening the overall system relative to the status quo, which I believe is the goal of the SPP. Do you see that?

A Yes, I do.

Q Is that assuming that you use a new set of design criteria, for example, grade B extreme wind, or are you using the same criteria that the original structure was designed to withstand?

A So, we would utilize the latest standards, the latest NEC -- NESC standards and other standards that we design to. So, it is my statement that it would be the -- you know, the most recent standard with any learnings and improvements that have been incorporated, both in internal standards as well as external.

Q On page 11, line five, you disagree with Mr. Mara that the towers at issue did not suffer. You disagree with him and assert that the towers did not suffer from a design flaw, is that right?

A Can you point me to what line you're on?

Q So line five on page 11.

A So I think line five, I'm saying that I disagree with Mr. Morra's assertion that the program should be removed from the storm protection plan.

Q You disagree -- well, if you look on -- let's go to line -- specifically line 11 and that answer that begins on line eight.

A Okay.

Q You disagree with Mr. Morra's assertion that these lattice towers suffered from a design flaw, do you not?

A I do disagree with Mr. Morra's assertion.

Q Do you have your -- the SPP with you? And could you turn to page 38 of 56 in BML1?

A Yes, I do have -- what was that page number again?

Q 38. Would you agree that on line 38 it states, the upgraded activity will replace tower types that have previously failed during extreme weather events?

A Yes. And I would say the distinction there is that it's not a design flaw, but merely a tower type that was more prone to failure in extreme weather events.

Q But would you agree that, within DEF 700 towers have been identified as having this design type?

A These 700 towers are of the same type as the ones that failed in Hurricane Michael, yes.

Q So, if the design type has to be replaced,

isn't there a problem with the design?

A No, these towers are fully functional in providing service for our customers today. Why they meet the intent of the storm protection plan is they harden and protect our customers from extreme weather events.

Q Let's go to page 13, lines one through seven. Would you agree here that your testimony is that replacing aging infrastructure is properly includable in the SPP?

A Yes, I would.

Q Do you also agree that overhead service conductor replacements should be included in the SPP?

A I'm here representing the transmission component.

Q You don't have an opinion on that?

A I do not.

Q What about battery backup systems in substations? Should they be included in SPP?

A So we have not included them in our current storm protection plan, but they are a system utilized for the substation.

Q So if you have -- based on the rationale that aging infrastructure is properly includable in the SPP, should battery backup systems and substations also be

included in the SPP?

MR. BERNIER: Object, Mr. Chairman. That calls for speculation. She's already testified that's not a portion of the plan that we're reviewing today.

CHAIRMAN FAY: She did answer the question. If you have any response related to that, in general, you're welcome to provide it, but otherwise, I don't -- I don't see that -- the battery issue here in the testimony.

MR. REHWINKEL: If I may respond. We're talking about the propriety of including certain projects in and certain projects out. So I think -- well, I didn't say that right. We're here to test the eligibility of programs for the SPP. So it's, in our view, a proper line of inquiry to ask about the line of demarcation of what's in and what's not in if, on either side of that line, the characteristics are the same or similar.

MR. BERNIER: And, Mr. Chairman, I just respond that we are arguably here talking about the programs at issue in our SPP, but we're not talking about the entire suite of possible programs that may exist in the world, but are not a part of our filing.

CHAIRMAN FAY: Yeah, and I'm going to -- I'm going to allow it with the caveat that it's specific to your knowledge of that to Mr. Bernier's point. Outside of that other program states, that type of thing, you're not required to have that knowledge. But if you do, you can provide the answer appropriately.

THE WITNESS: What I would say is specific to the overhead ground wires, they are a contributor in extreme weather events. In fact, they when failed, a lot of times we do have distribution underbuild, and so they fall into the distribution lines and slow down our restoration. So I would just talk to the overhead ground wire program and say that it is a contributor in storms. I don't have a lot of knowledge in terms of the battery systems and how they're contributing in a storm outside of I know we have rolled in battery trailers on occasion to support restoration.

BY MR. REHWINKEL:

Q So substations are a component of the transmission system, are they not?

A Yes, they are.

Q So is there -- is it your opinion that battery backup -- battery systems in substations could be

included in the SPP based on the rationale for replacing aging infrastructure?

A So what I would say is that our suite of programs does not include batteries and so I wouldn't give a distinction there.

Q Are relays part of the transmission system?

A Yes, they are, in the distribution.

Q Okay. Are there aging relays in the transmission system?

A So all of our assets are aging in some way or another, but what I would share is that we do include relays in our storm protection plan.

Q What about older transformers?

A Transformers are not in our storm protection plan.

Q Do you have aging transformers that are part of the transmission system?

A Yes, we do.

Q What about old or aging lightning arresters, older vintage ones?

A So, again, all assets on the system are aging in one capacity or another.

Q What was the line that you drew in the sand, if you will, between what you -- what aging infrastructure of those that we just included in the

list here today in my questions about some were included -- about why those were not included in the SPP, to the extent they weren't?

A So our programs are consistent with what we filed in SPP 2020. So there were no other additional programs considered for 2023.

Q Thank you. Let's go to page 15, lines three through seven. And talking about the -- I think this is talking about the cathodic protection subprogram, correct?

A That's right.

Q You stated in your testimony that this program provides systematic identification of structures that need knitting or replacement, is that right?

A Kitting.

Q Kitting. I'm sorry. Is that right?

A That's correct.

Q And this is captured in the transmission inspection program, isn't that right?

A So it's done through the cathodic protection program. When we go out to install the anodes on the towers, we're able to see below grade at that same time. And so that's information that we're able to gather to give us intel on the condition of the towers. And the kitting is one application or one approach that can be taken based on the condition of the existing infrastructure.

Q So, do you have the BML2, page 39 of 41 with you?

A Yes, I do.

Q Would you agree that on page 39 that it describes the scope of cathodic protection measures being limited to anode installations?

A Let me see what it reads. One second.

Q Okay.

A Yes, I read where we talk about the anodes.

Q As shown on that page, does the scope of the project as presented to this Commission include kitting or repairs of the structures?

A So in BML1 we talk to all of those points.

Q So what is the answer to my question?

A It's not reflected in BML2, but it is reflected in BML1.

Q Okay. Thank you.

MR. REHWINKEL: Chairman, I think those are all the questions I have on the testimony that is admitted into the record.

CHAIRMAN FAY: Okay.

MR. REHWINKEL: And I do not expect to have cross on the proffer.

CHAIRMAN FAY: Okay. Any cross?

MR. MATTHEIS: I have no questions, Mr. Chairman.

CHAIRMAN FAY: Mr. Moyle.

MR. MOYLE: Thank you. Just a couple.

EXAMINATION

BY MR. MOYLE:

Q Mr. Rehwinkel asked you -- good morning.

A Good morning.

Q Asked you a series of questions about certain programs. And, ultimately, said why did you not include these programs in your plan? And you said, we just took our plan from what was in 2020 and moved it forward, is that right?

A Yeah, I reflected that our 2023 plan matches what was filed -- similar to what was filed in 2020.

Q And in 2020, did you not include these programs because you made the determination that they weren't appropriate for inclusion in the storm protection plans?

A In 2020, we did evaluate several different programs. I will say that I don't recall for battery specific, but we did evaluate several suites of programs to come to the storm protection plan that we're presenting for 2023.

Q You evaluated them in 2020 and say, let's not put them in?

A So what we're presenting today is the plan that reflects the benefits for our customer and meets the intent of the law and the legislation.

Q It doesn't include things like batteries, backup for substations?

A That's correct, it does not include batteries in the current suite of programs.

Q You made a statement. Mr. Rehwinkel was asking you about the reduction, the restoration costs and outages, and you said that you believe that the programs had to comprehensively meet a reduction in restoration costs and outages, and I made a note about comprehensively meet. What does that mean?

A So I meant the plan as a whole would meet both the reduction and restoration costs and the reduction in minutes of interruption.

Q Okay. And in terms of how you get to that, would that mean that you could have programs or projects that, on an individual basis, did not make the reduction in restoration costs and the reduction in outage time?

A Is there a specific part of my testimony that you're referencing?

Q No. I'm just trying to understand

comprehensively. When you say comprehensively that you look at it in toto. I would assume -- I would assume that you will also look at every project and every program and make sure that the projects and the programs also result in a reduction in cost and a reduction in outage times, and I just want to confirm that.

A So we do reflect the savings, both from a restoration cost and minutes of interruption in BML1. And I think there's also some more information on BML2, so that was information that was covered in our direct testimony, as well.

Q As we sit here today, you're not aware of any programs or projects that have -- that do not have a reduction in restoration costs and do not have a reduction in outages, correct?

A So what I would say is that the programs together reduce restoration costs and minutes of interruption for our customer -- outages for our customers.

Q Could you maybe just give me a yes or no on that? You explained, but if I could get a yes or no, no, it'd be helpful.

A So I do have some commentary in my rebuttal.

Q Is there a yes or a no in the commentary?

A I'm getting there.

Q I'm not really trying to prolong it. I'm just trying to -- you have knowledge about your plan. You have more knowledge about your plan than I do. It's your plan. I'm just trying to understand are there programs or projects in here that do not result in a reduction in restoration costs and a reduction in outages; yes or no?

A So my statement is that they would all in some way, maybe not directly, reduce restoration costs for our customers. The one example I would give you is the radially-fed substations. We -- in that scenario, it's a radial-served customer or number of customers that we would build a second line and loop them in. I kind of described that layout yesterday. So within that program, if a -- you know, an outage or damage to the transmission system were to occur, having the second line doesn't reduce cost unnecessarily, or at least quantifiably. What I can share is that we would be able to go in a more planned fashion to restore the customers and, therefore, there would be savings from a restoration cost perspective. It's just very hard to quantify because every circumstance is different from a storm perspective, you know, how many resources come in, the complement of internal and contractors. There's a lot of parameters that would come into play to give a number associated with that, but I still maintain that any avoided outage for our customer is ultimately going to avoid costs.

Q But they can't be quantified necessarily?

A We did not quantify them, or our Guidehouse model did not quantify them for the looping of radially-fed substations. So in that exact -- example of the program, that was a reduction in customer minutes interruption --

Q Okay. Are there others?

A So there's no other programs from a transmission perspective that doesn't meet the requirements of restoration costs and restoration outage -- reduction and outages. Tongue got stuck.

Q That's all right. And are you aware of any other in any other area?

A Sir, I'm here talking about the transmission program, so that's what I can talk to today.

Q Right. And I assume that you wouldn't be aware of maybe you had a meeting where everybody said, let's talk about the five programs that don't do both of these and you have knowledge of that --

MR. BERNIER: I'll object, Chairman. She's already answered that question.

CHAIRMAN FAY: Mr. Moyle, I believed she's answered to the best of her abilities.

BY MR. MOYLE:

Q Did you reach a conclusion when you did not include batteries that the statute didn't allow them for substations?

A No, I didn't reach that conclusion.

Q Well, I say you. I'm talking about Duke, not you particularly.

A I can't speak to batteries.

Q Why, again, did you not include them in 2020?

MR. BERNIER: I'm going to object, again, Mr. Chairman. We're here talking about the 2023 plan, not the 2020 plan or not any of the programs that may not have been included in the program -- in the plan.

MR. MOYLE: Well, I mean she said the 2023 plan is the same as the 2020 plan. And Mr. Rehwinkel said, why didn't you include it. Said, we just took everything in 2020. She also said she's read the rule and has opinions with respect to the rule in what's in and what's out. So my question simply is, if you just carried over 2020, did you make a judgment in 2020 as to whether there was any kind of prohibition about batteries being in or out?

CHAIRMAN FAY: Yeah. I mean, I believe your testimony essentially is that the programs are the same, not that the thing in its entirety is the same, but I do think Mr. Moyle's question is appropriate as to if you have knowledge as to those programs, if there was discussion about that battery-related issues, you're welcome to answer that part of it. That's not beyond the scope.

THE WITNESS: I don't recall any conversations about batteries.

MR. MOYLE: Okay. That's fair. Thank you and appreciate your answering my questions.

CHAIRMAN FAY: Thank you, Mr. Moyle. Ms. Eaton?

MS. EATON: No question.

CHAIRMAN FAY: Staff.

MR. IMIG: No questions.

CHAIRMAN FAY: Commissioners?

Redirect Mr. Bernier.

MR. BERNIER: Just very briefly, Mr. Chairman. Thank you.

FURTHER EXAMINATION

BY MR. BERNIER:

Q Ms. Howe, can you just confirm for me was the overhead ground wire program -- or subprogram, excuse

me, included in the 2020 SPP?

A Yes, it was.

Q Same question for the cathodic protection program.

A Yes, it was.

Q Okay. Thank you. Can you turn to BML2, page 39 of 41, please?

A Okay.

Q Mr. Rehwinkel asked you if that description stated that the program was limited to anode installations, but is that what that statement says?

A It doesn't say limited. It just talks about the anode.

MR. BERNIER: Thank you very much. I have nothing further.

CHAIRMAN FAY: Okay. Great. And there's no exhibits to move in. We can now move to the proffered portion of Ms. Howe's testimony, Mr. Bernier.

MR. BERNIER: Thank you, Mr. Chairman. In response to the Commission's order, striking portions of Mr. Kollen's testimony, we would like to proffer the originally filed rebuttal testimony of Ms. Howe that was filed on June 30th, 2022, for purposes of the record.

CHAIRMAN FAY: Show that proffered.

(Whereupon, prefiled proffered rebuttal testimony of Amy Howe was inserted.)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
REVIEW OF STORM PROTECTION PLAN, PURSUANT TO RULE 25-6.030, F.A.C., DUKE ENERGY FLORIDA, LLC.

DOCKET NO. 20220050-EI
REBUTTAL TESTIMONY OF AMY HOWE
ON BEHALF OF DUKE ENERGY FLORIDA, LLC
JUNE 30, 2022

I. INTRODUCTION AND QUALIFICATIONS.

Q. Please state your name and business address.

A. My name is Amy M. Howe. My current business address is 13338 Interlaken Road, Odessa, FL 33556.

Q. Have you previously filed direct testimony in this docket?

A. Yes, I filed direct testimony supporting the Company's SPP on April 11, 2022.

Q. Has your employment status and job responsibilities remained the same since discussed in your previous testimony?

A. Yes.

II. PURPOSE AND SUMMARY OF TESTIMONY.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my testimony is to provide the Company's rebuttal to assertions and conclusions regarding the Transmission specific aspects of DEF's 2023-2032 Storm Protection Plan ("SPP 2023" or "Plan") contained in the direct testimonies of OPC's witnesses Kollen and Mara. Mr. Lloyd and Mr. Menendez will present additional rebuttal of the testimonies of OPC's witnesses.

Q. Do you have any exhibits to your testimony?

A. No.

Q. Please summarize your testimony.

A. My testimony focuses on Witness Mara's and Witness Kollen's testimonies as they relate to Transmission-specific programs and subprograms and rebut the misinformation and incorrect conclusions contained within. In sum, when the Transmission programs are properly understood as an integral part of the overall Plan, which is designed as a holistic approach intended to meet the objectives identified by the legislature in section 366.96 (the "SPP Statute"), it is clear the programs are properly included in the Company's SPP and should be approved. OPC's witnesses' arguments to the contrary demonstrate a lack of understanding of the programs themselves and are based on a narrow interpretation of Rule 25-6.030 (the "SPP Rule") that, in DEF's belief, unnecessarily curtails the scope of the SPP contrary to the legislature's intent. Their testimony should be rejected by the Commission.

Q. In general, do you agree with the overall concerns and points of disagreement with Witness Mara's and Kollen's testimonies expressed by Mr. Lloyd?

A. Yes. I have reviewed Mr. Lloyd's testimony and I completely agree with his general concerns and points regarding Mr. Mara's and Mr. Kollen's novel interpretations of the SPP Statute and Rule and note that many of Mr. Lloyd's points apply with equal force to the transmission programs as they do the customer delivery (distribution) level programs, so I will not repeat those points here. I will therefore limit my points of rebuttal to transmission-specific issues. Additionally, Mr. Menendez provides the Company's rebuttal of ratemaking related concerns, which is an area outside of my responsibility, so I express no opinion on those matters.

Q. ~~Mr. Kollen contends that each SPP Project should pass a cost effectiveness test as a condition of being included in the SPP. Based on your knowledge of the transmission system, is there any reason why such a test would be problematic?~~

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A. ~~Yes, my concern is, due to the configuration of the transmission system, Mr. Kollen's test would potentially exclude many transmission projects thereby limiting the effectiveness of transmission programs. Within the Guidehouse model, if Bulk Electric System ("BES") lines or substations were not directly serving our customers, the customer count was reflected as zero (0) which may contribute to a benefit to cost ratio of less than 100%. In other scenarios, if there were several lines serving a substation the customer count may have been shown as zero (0) on those lines due to the inherent redundancy of the system and again that would likely contribute to a benefit to cost ratio of less than 100%, and the same is true for a tapped line to serve wholesale customers would reflect zero (0) retail customers even though the tapped lines are generally served from the same lines that serve~~

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~~substations with retail customers (i.e., daisy chained, which I will describe in more detail further down in my testimony). In most cases, when a tapped line experiences an outage, the full transmission line is interrupted until the faulted section can be isolated and repaired, hence, tapped lines need to be hardened.~~

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~~It is essential that the Transmission system configuration is taken into consideration. The transmission system is an integrated grid and therefore upgrading only a portion will not provide the full effectiveness of a program to our customers. Limiting programs to only hardening facilities with a benefit to cost ratio of greater than 100% would be shortsighted and would exclude the BES transmission facilities as well as other facilities that do not directly serve our retail customers although they are critical to the overall Transmission grid.~~

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Q: Are there any other reasons why the configuration of the transmission system is a relevant consideration?

A: Yes. The transmission and distribution systems are integrated and work together to serve our customers. Many industrial and wholesale customers receive electric service straight from the transmission system, specifically at 69kV, which means that any upgrades to the transmission system will directly increase continuity of service and improve overall reliability for those customers. Additionally, service for all customers originates from the transmission system (which acts as a bridge between the generation and the distribution system); therefore, any upgrades to the transmission system will have a positive impact on the overall level of service provided to our customers even if, as described above, due to redundancy reasons a given line is shown as “serving” zero (0) customers.

The BES is the highest voltage portion of the transmission system, consisting of transmission lines and equipment operating above 100kV and serving to transmit large amounts of power throughout the system. The BES is subjected to mandatory reliability standards published and administered by the North American Electric Reliability Council ("NERC") under the authority of the Federal Energy Regulatory Commission ("FERC"). These standards require sufficient redundancy within the BES to allow continued operation even when one or more elements of the system is out of service.

That said, most of DEF's BES assets do not directly serve customers but instead serve as critical infrastructure maintaining power flow within and between DEF, neighboring utilities, and Independent Power Producers.

As a result, failure of a single BES element will often not cause a direct outage to our customers but removes a level of redundancy for the entire BES. Sequential failures within the system can cause significant disruption to power flows and cause extensive customer interruptions as could occur during extreme weather events and therefore it is critical to harden these facilities for extreme weather events and to reliably serve our customers. The BES transmission system is the linkage between the generation facilities to our 69kV system and distribution system that ultimately serves our customers' homes and businesses. Thus, although strengthening the BES may not have a direct impact or quantifiable reduction to customer outages due to the inherent redundancy of the BES, it is a critical component to reliably serving our customers and as such it would defy all logic and sound planning to deny DEF (or any utility) the ability to include such hardening programs and projects in an SPP intended to strengthen the grid as a whole based on an artificial cost-benefit standard that has no support in either the governing statute or rule.

The 69kV transmission lines and equipment are not considered a part of the BES but are transmission lines that deliver power to many of the distribution substations. The level of redundancy, or in this scenario alternate sources, in the 69kV portion of the transmission system, and its ability to withstand an outage of an element of the system without resulting in customer outages, is different from the higher voltage lines within the BES.

DEF's 69kV lines typically run from a circuit breaker in one source substation to a circuit breaker in another source substation, with several distribution substations fed along the circuit in a "daisy chain" fashion. These two sources to the circuit provide a certain level of redundancy. A fault within a segment of such a 69kV line will often result in an outage to the substations and distribution circuits between the circuit breakers, until the faulted section can be identified and the switches along the line opened or closed to isolate the faulted section and restore power to the substations from the un-faulted portions of the circuit.

Q. At the outset, do you have any over-arching concerns with OPC's position in this docket?

A. Yes, I do. I agree with Witness Lloyd in that, while I am not a lawyer (though I note that neither of OPC's witnesses are lawyers either), it appears to DEF that their interpretation of the SPP Statute and Rule is very constricted by limiting SPP eligibility to projects and programs that both decrease outage restoration costs and outages/outage duration. Specific to transmission, the included programs contribute to the systematic nature of the overall Plan that accomplishes these goals, over time, in a cost-effective manner; however, not every program and/or subprogram is intended to reduce *both* restoration costs and outage times. For example, Structure Hardening in its entirety is focused on reduction of outage times and restoration costs, however, the primary benefit of the Gang Operated Air Break ("GOAB") sub-program is reduction of outage times. Of course, by reducing the outage time and sectionalizing the facilities impacted by the extreme weather event inherently there are restoration cost savings that are hard to quantify. That said, DEF simply cannot agree that either the Legislature or Commission intended to exclude any project or program (or sub-program) from inclusion in the Plan because it does not, on its own, accomplish each of the goals identified in the SPP statute and rule.

Q. Have you fully described the transmission programs within the SPP?

A. Yes. The transmission programs have been described in Witness Lloyd's Exhibit BML-1 – Program Descriptions, and further explained in my previously filed direct testimony. In this rebuttal testimony, I will only address the specific contentions raised by OPC's witnesses.

Q. Do the transmission programs put forward under DEF'S SPP meet the requirements of Rule 25-6.030, F.A.C.?

A. Yes, in fact they are the same programs that are included in DEF's currently approved SPP.

Q. In Witness Mara's testimony, he opines that not all of DEF's Storm Protection Plan Programs should be approved by the Florida Public Service Commission. Do you agree with Witness Mara's opinion?

A. No, I do not agree with Witness Mara's opinion; I believe all programs DEF included in its SPP should be approved as they all contribute to the overall efficacy of the Plan. The Plan DEF submitted meets the requirements of the Statute and Rule as it will reduce restoration costs and reduce outage durations during extreme weather events; it does so through a suite of programs that each play a part in achieving the Plan's goals. I will address why I disagree with Witness Mara's opinion regarding each Transmission program and subprogram he discussed and further explain how they meet the requirements of Rule 25-6.030.

Q. Mr. Mara contends the SPP rule requires programs to increase asset strength beyond the original design of the asset being replaced. Do you agree?

A. No, that is not my understanding. While I agree programs that increase strength beyond original design would certainly qualify for the SPP, I am not aware of any such limitation in the Statute or Rule, nor has either of OPC's witnesses cited one. As I understand the Statute and Rule, SPP programs and projects are intended to protect and enhance the system for the purposes of reducing restoration costs, reducing outage times, and improving overall service reliability. Again, though I am not an attorney, it seems logical and consistent with the SPP's goals to include enhancements that, while they may not strengthen facilities relative to the original design, work to arrest the natural weakening or deterioration of those assets, thereby preserving the strength of the facilities so they can better resist the impacts of extreme weather conditions. To DEF, this is a cost-effective means of enhancing the system that will provide real benefits to our customers (as opposed to, for example, simply replacing all transmission facilities).

Examples of sub-programs that protect the strength of the Transmission system and are projected to reduce outage times and restoration costs resulting from extreme weather are Cathodic Protection and Replacing Overhead Ground Wire.

Below, I will further describe both cathodic protection and OHGW subprograms within the Structure Hardening program and how they meet the objectives of the rule as important components of a comprehensive Plan.

Q. Witness Mara states that "hardening means to design and build components to a strength that would not normally be required" and that "aging infrastructure" should not be replaced as part of the Storm Protection Plan. Do you agree with Witness Mara's statement?

A. No, I cannot agree with that assertion because it simply ignores the reality of operating a utility system. Obviously, our system is exposed to the elements all the time, and in Florida those elements can be brutal on utility infrastructure. As a result, "aging" infrastructure not yet at the end of its expected life and therefore still accomplishing its purpose could be replaced with a new component that will simply perform better, thereby strengthening the overall system relative to the status quo, which I believe is the goal of the SPP. A program that includes such replacements (for example, structure hardening and the overhead ground wire replacement sub-program I will discuss later) is properly included in the Plan. To the extent OPC's position relative to inclusion of these types of programs within the SPP is based on cost-recovery concerns (i.e., double recovery of costs in base rates and through the SPPCRC), those concerns are addressed by Mr. Menendez's rebuttal testimony.

Q. Would you agree with Witness Mara's conclusions relative to transmission construction using the NESC (National Electric Safety Code)?

A. On page 7 of Witness Mara's testimony, he states specifically relative to transmission poles: "In transmission system hardening, many utilities are using non-wood poles (steel or concrete) to replace existing wood poles. The upgrade to non-wood poles is not required by the NESC but these non-wood poles have proven to reduce outages and reduce outage times due to the superior ability of the non-wood poles to survive during extreme windstorms." DEF agrees that conversion from wood to non-wood poles has proven to reduce outages and outage times and meets the requirement of the Rule. In fact, all the costs proposed in DEF's SPP related to transmission poles are to replace wood poles with non-wood poles, so Mr. Mara agrees that those costs are properly recoverable under the SPP.

Q. Do you agree with Mr. Mara's assertion that the lattice tower replacement subprogram should be eliminated from the plan?

A. No, absolutely not, nor do I agree with any of the points Mr. Mara relies on in reaching his conclusion. First, Mr. Mara stated "Transmission lines have been required by the NESC to be built for extreme wind events since at least 1977. Failure due to design flaw should not be a SPP activity."[1] However, Mr. Mara chose to ignore, or possibly did not know because he failed to ask, that the lattice towers in question predate 1977, therefore there was no NESC required extreme wind loading standard at the time (by his own admission) and the towers did not suffer from a "design flaw" any more than any component that has been updated over time (or which was built to a given standard that has been subsequently modified). Thus, this support for his conclusion fails.

He continues, "If DEF owns towers that fail to meet strength requirements when constructed, then replacement costs should not be considered an 'upgrade' and therefore should not be funded through the SPP."[2] It is irrelevant whether DEF agrees with this general proposition or not, as Mr. Mara offers it without identifying any such towers, he believes failed to meet strength requirements when constructed. To DEF's knowledge, no such towers exist, nor does he opine that the design *was* flawed, but merely states "if" it was flawed it should not have been accepted and thus cannot be a proper SPP program (again, with no support). Thus, this contention likewise fails.

Mr. Mara's next attempt at supporting his conclusion fares no better as it is simply a repeat of his contention that a program that replaces aging infrastructure should be excluded, though this time stated as an accepted fact rather than a dubious proposition.[3]

Mr. Mara next claims "Replacing towers with new towers that meet the same weather loading condition will not add to resiliency. Rather it simply maintains the status quo in terms of strength." As discussed generally above, this argument ignores reality by seeming

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[1] Mara Testimony, pg. 28, ll. 20-22.

[2] *Id.* at pg. 28, l. 22 – pg. 29, l. 2; *see also id.* at pg. 29, ll. 6-7 ("If the tower design was flawed, it would have been imprudent for DEF to accept the design and construction of the tower in which case the cost should also be excluded from the SPP.").

[3] *See id.* at p. 29 ll. 2-4.

to believe that the resiliency of the system is somehow a static measure that does not change over time, and that somehow a piece of infrastructure should rationally be expected to retain all its strength throughout its service life. While I wish that were the case, it simply is not. In the real world, accelerated change outs of aging infrastructure increases resiliency and reliability as there would be less infrastructure damaged during an extreme weather event, resulting in fewer failures to mitigate and quicker restoration time for DEF customers. Moreover, Mr. Mara fails to recognize that Tower Upgrades are designed to the latest NESC code, which is updated in 5 years cycles. Equipment standards, both internal and external, are continuously reviewed and updated. Thus, new equipment installations include the improvements as part of DEF's updated standards, meaning the towers are not being replaced "like for like" at all.

This subprogram is proper and should be retained.

Q. Witness Mara asserts that deteriorated overhead ground wire is simply an aging infrastructure the replacement of which does not increase strength. Can you please explain what was meant in your testimony by the term deteriorated OHGW and why the subprogram is appropriate for SPP?

A. Yes, but first I would reiterate my points above that programs or subprograms intended to replace aging infrastructure that are not functioning to the level they did when originally installed due to the passage of time and/or because they have simply been performing as designed but cannot realistically be expected to do so indefinitely, are properly included in the SPP.

With that said, Deteriorated Overhead Ground Wire ("OHGW") is static conductor that has lost some of its strength but still performs the designed function, albeit at reduced capacity. Overhead static wire deterioration occurs when the protective galvanization has been sacrificed and static in this condition is more prone to failure. It is known and accepted that all static sizes and material combinations will lose their galvanization and eventually rust, thus reaching the end of life. Not only is the static more susceptible to failure from both wind and lightning events, but the grounding qualities become compromised. Therefore, the OHGW is not "deteriorated" in the sense of having been poorly designed or maintained; rather, it is simply an asset that, if replaced, will strengthen and better protect the system against the effects of extreme weather relative to the state of the system as it exists today. The OHGW is a contributor to CMI and restoration costs during extreme weather events and therefore, its enhancement serves to strengthen the system as intended by the SPP statute and rule.

Q. The Gang Operated Air Break ("GOAB") Line Switch Automation subprogram was addressed by Witness Mara as a subprogram that should not qualify for the Storm Protection Plan as it does not reduce the restoration costs. Do you agree with his assessment?

A. No, I do not agree with Witness Mara's assessment. As stated in Witness Lloyd's testimony, "From DEF's perspective, the Legislature directed the utilities to develop integrated storm protection plans that as a whole are intended to achieve the goals of reducing restoration costs and outage times to customers and improving overall service reliability. DEF's Storm Protection Plan is the sum of its parts with the programs working together to reduce restoration costs and outages times associated with extreme weather events." The GOAB subprogram is a piece of the overall Structure Hardening program that promotes minimal outage time by providing the ability to perform remote sectionalizing to restore the customer. It also provides relay information on the location of the event. Logically, the time for a crew to patrol the line is reduced and in turn, the cause of the event can be addressed without additional outage time to customers. The benefit of greatly reducing the outage time for our customers should not be discounted. In some of DEF's remote areas, this could reduce from hours to minutes to resolve the outage. Minimizing outage time also effectively manages overall cost required to address the cause of the event. Thus, it is DEF's position that the GOAB subprogram has multiple benefits and is a part of the overall reduction in restoration costs projected from the Structure Hardening program.

Q. Mr. Mara contends that the Cathodic Protection subprogram within the Transmission Structure Hardening Program should be excluded from the Plan because it does not increase strength or improve resiliency. Do you agree?

A. No, I do not agree. As discussed above, I think a subprogram that arrests the natural degradation of a component, thereby maintaining its strength for a greater period of time, makes the asset more resistant to the effect of extreme weather and therefore makes the system as a whole more resilient. The Cathodic Protection sub-program meets the requirements of Rule 25-6.030 through the mitigation of the degradation to structure capacity from groundline corrosion and systematic identification of structures that need kitting or replacement. This program aims to cost effectively address corrosion issues across the entire DEF lattice fleet without prematurely replacing the assets, which directly provides reliability benefits by preserving overall system strength on a larger scale than individual asset change-out. The program also installs reinforcement kits on structures with existing groundline corrosion that are in otherwise good health. As Witness Mara correctly notes “When the strength of a tower or structure decays below a certain level, per the NESC, the structure must be replaced or rehabilitated.” Restoring groundline capacity of the structure allows the structure to perform as originally designed for a greater period of time at a fraction of the cost to customers compared to structure replacement. In the end, this subprogram reduces restoration time after major storms through verification and preservation of DEF’s lattice towers system health, and through mitigation of existing vulnerabilities from ground line corrosion. As a result, I recommend that this sub-program be included in the SPP.

Q. Mr. Mara recommends excluding portions of the Transmission Substation Flood Mitigation Program. Do you agree with his contentions regarding the need for the challenged aspects of the program?

A. No, I do not. First, I would note that all substations were built to the existing standards in the year they were installed. Witness Mara asserts that: “substations built after 1973 should have been designed with the knowledge of potential flood waters and designs should have accounted for this predictable occurrence.” The SPP Flood Mitigation program is directed to the substations at the highest risk of flooding per the most current 100-Year Federal Emergency Management Agency (“FEMA”) flood plain, which is under continuous review and updated as needed. For example, the FEMA Floodplain map for the coastal area was updated in June of 2020. These flood plain changes can result in substations that were not within the flood plain at construction being “reclassified” such that the original design, which was appropriate at the time, is no longer sufficient. The model established for Substation Flood Mitigation evaluates substations in the flood plain with the potential based on historical data to have at least four (4) feet of flood mitigation, and then DEF resources perform further analytics to ensure the prudency and most cost-effective measure for mitigation.

Q. What is your response to the comment that DEF has not suffered outage time due to flooding of DEF’s substations?

A. Witness Mara shared his understanding that DEF has not had any outages due to flooding of its substations in recent years, stating, “there was one instance where sandbags were deployed at a control house but there were no outages.” Witness Mara seems to indicate that a 3-year flood history is indicative of a 100-year flood, but substations are built to remain functioning over a prolonged period, so a 3-year window is not sufficient to prudently plan for the long-term functionality and service of the substation (as discussed above, the NESC code is updated regularly while the FEMA flood plain is updated as necessary, both of which can result in changed requirements at specific locations).

I recommend retaining the Substation Flood Mitigation Program in its entirety.

Q. Mr. Mara recommends eliminating the Loop Radially Fed Substation Program from the plan in favor of prioritizing hardening transmission lines through replacing wood structures with non-wooden structures. Do you agree with this approach?

A. No, I do not agree for a couple of reasons. For one thing, accepting what he said regarding the lower rate of failure for hardened structures as true, it does not mean that hardened structures will be able to withstand each and every extreme weather event that may eventually occur. Hence, the looping of radially fed substations (as discussed below) will further harden the system against the impacts of extreme weather events in a cost-effective manner.

The looping of radially fed substations is targeted at specific existing "single point of failure" vulnerabilities. For example, a short 69kV radial tap serves a substation that cannot be isolated and restored through switching if a line fault occurs on that tap. A typical design allows for a slight adjustment to the line route to "loop through" the substation so there is no portion of the transmission line that would prevent restoring power to the substation. Looping through the substation in this manner allows the transmission line to be "sectionalized" by operating switches to isolate a faulted section of the line and to restore the electric supply to the substation in the event of a line outage. Switches installed within the substation can also be equipped with remote monitoring and control more easily than switches located on the transmission line at a distance from the substation.

The ability to isolate events or damage due to extreme weather events allows for reduction of outage times. Restoration costs are reduced because of the ability to quickly restore customers out of service and have a more planned approach to any repairs required versus dedicating resources to first identify and then repair damage in an emergency response.

Q. Mr. Mara recommends eliminating the Substation Hardening Program from the plan indicating that the BCA is only 1%. Do you agree?

A. No, I do not agree. I referred to Exhibit KML-2 and it was unclear how the 1% BCA he refers to was calculated. The 1% BCA does not match Table 1 located in Witness Lloyd's Testimony. Table 1 clearly shows all of DEF's programs have a benefits-to-cost ratio greater than 1, which is inclusive of the Substation Hardening program. As a result, I recommend that this program be included in the SPP.

Q. Describe why the Transmission Substation Hardening Program meets the requirements of Rule 25-6.030, F.A.C.

A. The Transmission Substation Hardening program is intended to upgrade targeted equipment that is generally more vulnerable during extreme weather events to protect the integrity of the grid. Simply put, relays and breakers are needed as a combination to protect the Transmission and Distribution systems to ensure reliable service for our customers. Witness Mara opines that "outages will still occur and therefore the cost to restore will not be reduced." Rather than provide a basis for eliminating the program, this opinion supports the need for the Substation Hardening program. As faults occur on the system, the breakers and relays are relied upon to operate and safely isolate the faulted segment, which reduces outages and outage durations to customers connected to facilities that are not damaged. During extreme weather events, breakers and relays are called upon to operate more frequently and failure to operate, when necessary, would result in longer outage durations for our customers. We also expect that the ability to isolate the faulted segment will also decrease restoration costs by saving time identifying areas of need, thereby allowing DEF's restoration crews to focus efforts appropriately.

Q. Do you agree with Witness Mara that there are no significant performance changes with using modern breakers?

A. No. During extreme weather events, breakers and relays will operate multiple times as the weather affects the transmission and distribution systems. Oil breakers have a limited number of operations especially in circumstances where they are operating numerous times over a short period, such as during extreme weather events. When oil circuit breakers are repeatedly called to operate, they can generate arcing gasses within the oil tank that can accumulate and result in catastrophic failure. Replacement of the breakers with gas or vacuum breakers, upgrades to a faster response time and they can withstand a higher number of operations. Failure to operate fast enough to clear fault currents will activate backup protection systems, potentially leading to a larger outage for our customers.

Q. Do you agree with Witness Mara that def has no choice but to replace electromechanical relays with digital?

A. Not necessarily; DEF does have a choice regarding the timing of the upgrade from electromechanical to digital relays. Electromechanical relays still perform the designed function, and DEF has an available inventory of electromechanical relays it can use, however, they do not offer the additional benefits that I describe below. DEF has implemented electromechanical for electromechanical relay replacements to extend the life of the facility and maintain reliability for our customers. DEF agrees the upgrade of non-communicating electromechanical relays to digital relays provides enhanced monitoring and communication capability and eventually all relays on the system will be upgraded to digital, but to perform that upgrade at this time would be cost prohibitive.

Protection systems (i.e., grouping of relays) are designed to detect and isolate faults or disturbances on the transmission or distribution systems. During extreme weather events, relays are needed to quickly identify the fault thereby limiting the severity and spread of system disturbances and preventing possible damage to equipment. Additionally, some digital relays enable the use of device data to calculate the distance of a line fault allowing for faster identification and restoration. Substation Hardening reduces restoration cost and outage time through the reduced resource time needed to manually patrol the length of the transmission line or facility prior to restoring customers or the BES transmission system.

Q. On June 27, 2022, OPC filed a Motion to Accept Amended Testimony along with amendments to both witnesses' pre-filed direct testimonies. Have you reviewed the amended testimonies, and if so, what impacts do the amendments have on your rebuttal testimony?

A. Yes, I have reviewed the proposed amended testimonies, as well as Mr. Lloyd's response contained in his rebuttal testimony. I fully agree with Mr. Lloyd and also believe that, because OPC's witnesses' testimonies continue to include their faulty reasoning and conclusions, as I have discussed in the foregoing testimony, it is important to present the Company's response as it pertains to the Transmission specific portions of the Plan.

III. CONCLUSION

Q. Mrs. Howe, your rebuttal covers a lot of ground, but did you respond to every contention regarding the Company's proposed plan in your rebuttal?

A. No. Intervenor testimony on the SPP involved many pages of testimony and I could not reasonably respond to every single statement or assertion and, therefore, I focused on the issues that I thought were most important in my rebuttal testimony. As a result, my silence on any particular assertion in the intervenor testimony should not be read as agreement with or consent to that assertion.

Q. Does this conclude your testimony?

A. Yes.

CHAIRMAN FAY: And then I believe, Mr. Rehwinkel, you said there's no proffered cross on this. Mr. Moyle. Ms. Eaton. Nucor.

MR. MATTHEIS: No cross.

MR. MOYLE: No questions.

CHAIRMAN FAY: Okay. With that, Ms. Howe, you are excused. Safe travels. Hopefully we got you out of here on time.

THE WITNESS: Yes, thank you for accommodating.

(Witness excused.)

CHAIRMAN FAY: With that, Commissioners, we will allow a lunch break until 1:15. I will ask the attorneys for the parties to please take some of that time -- you can eat a little bit, but spend most of that time resolving any of the numbering or the issues that we've had come up. And when we come back this afternoon, we'll move fairly quickly through the witnesses.

(Lunch recess.)

CHAIRMAN FAY: All right. Good afternoon, everyone. Welcome back. We are going to move into Duke's other two witnesses. Just real quick for the record, Commissioner Graham is not going to be available this afternoon, the hearing, but he is going to review the record before any decision is made.

So, with that, Mr. Bernier, we'll recognize you to call your next witness.

MR. BERNIER: Thank you, Mr. Chairman. Duke Energy calls Mr. Brian Lloyd.

Whereupon,

BRIAN LLOYD

was recalled as a witness, having been previously duly sworn to speak the truth, the whole truth, and nothing but the truth, was examined and testified as follows:

EXAMINATION

BY MR. BERNIER:

Q Mr. Lloyd, I see you're up there. Good afternoon.

A Afternoon.

Q You recall, sir, that you were sworn the other day and you remain under oath?

A Yes, sir.

Q Thank you. In response to the Commission's order striking portions of Mr. Kollen's testimony, did you file amended rebuttal testimony on August 1st, 2022, striking portions of your rebuttal testimony in response to Mr. Kollen's stricken rebuttal testimony?

A Yes, sir, I did.

Q Thank you. And do you have a copy of that amended rebuttal testimony with you today?

A I do. Yes, sir.

Q Thank you. And other than the changes that we mentioned, do you have any additional edits to make to your amended rebuttal testimony?

A No, sir, I do not.

Q If I were to ask you the same questions here today, would your answers be the same?

A Yes, sir, they would.

Q Thank you.

MR. BERNIER: Mr. Chairman, we enter Mr. Lloyd's amended August 1st rebuttal testimony into the record as though read.

CHAIRMAN FAY: Okay. Show inserted.

(Whereupon, prefiled rebuttal testimony of Brian Lloyd was inserted.)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REVIEW OF STORM PROTECTION PLAN, PURSUANT TO RULE 25-6.030, F.A.C., DUKE ENERGY FLORIDA, LLC.

DOCKET NO. 20220050-EI

REBUTTAL TESTIMONY OF BRIAN M. LLOYD

ON BEHALF OF DUKE ENERGY FLORIDA, LLC

JULY 1, 2022

I. INTRODUCTION AND QUALIFICATIONS.

Q. Please state your name and business address.

A. My name is Brian M. Lloyd. My current business address is 3250 Bonnet Creek Road, Lake Buena Vista, FL 32830.

Q. Have you previously filed direct testimony in this docket?

A. Yes, I filed direct testimony supporting the Company's SPP on April 11, 2022.

Q. Has your employment status and job responsibilities remained the same since discussed in your previous testimony?

A. Yes.

II. PURPOSE AND SUMMARY OF TESTIMONY.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my testimony is to provide the Company's rebuttal to certain assertions and conclusions contained in the direct testimonies of OPC's witnesses Kollen and Mara. Ms. Howe and Mr. Menendez will present additional rebuttal of the testimonies of OPC's witnesses Kollen and Mara.

Q. Do you have any exhibits to your testimony?

A. Yes, I am sponsoring the following exhibit to my rebuttal testimony:

- Exhibit No. __ (BML-4), 712 Self-Healing Team Benefits Report

This exhibit was prepared by the Company in the normal course of business and is true and correct to the best of my information and belief.

Q. At the outset, do you have any over-arching concerns with OPC's positions in this docket?

A. Yes, I do. While I am not a lawyer (though I note that neither of OPC's witnesses are lawyers either), it appears to DEF that their interpretation of the SPP statute and rule is overly constricted, to the point of essentially eliminating much of what DEF believes was the Legislature's and Commission's intent in enacting the statute and rules.

Q. Can you explain what you mean?

A. Yes. From DEF's perspective, the Legislature directed the utilities to develop integrated storm protection plans that as a whole achieve the goals of reducing restoration costs and outage times to customers and improving overall service reliability. DEF has followed that directive by crafting a systematic Plan that includes a suite of programs that, overall, are intended to accomplish these goals, over time, in a cost-effective manner. If, as OPC and specifically Mr. Mara suggest, the Company was required to limit its proposed programs to just those that themselves are projected to accomplish the goals set out in the statute, the ability to systematically harden the system against the effects of extreme weather would be seriously curtailed.

Said differently, I believe OPC has lost the forest for the trees. DEF operates an integrated system, from generation, to transmission, and then ultimately distribution to our customers. As such, system planning requires a highly integrated and interconnected approach, taking into account the impact actions directed at one component will have on the remainder of the system. That is, assuming without agreeing that an individual program "only" reduced restoration costs while another "only" reduced outage times, the two programs combined would achieve the legislature's goals. DEF believes this is what the legislature intended when it directed the utilities to file a plan explaining the Company's systematic approach to achieving the identified goals.

Moreover, DEF is required to plan for a range of contingencies and cannot assume a "one size fits all" approach. For example, the "extreme weather conditions" we must be prepared for include, but are not limited to, heavy rain events, lightning, coastal flooding, inland flooding (e.g., rivers), and gale-force winds. These events can occur on almost any given day and are not constrained to tropical weather systems, though those are the most oft thought of example of extreme weather in Florida. Further, even within the context of tropical weather systems, we know that each storm is unique in the degree, type, and concentration of damage – for example, Irma impacted almost the entirety of the state causing widespread damage while Michael was much more concentrated but nevertheless caused extreme damage in the impacted areas.

The point being, our intent, which we believe aligns with the legislature's directive, was to propose a holistic Plan to systematically harden the system to better withstand the range of extreme weather conditions expected to impact the state. The Plan, as a whole, is projected to achieve the multi-pronged goals of reducing storm restoration costs, outage times, and improving overall reliability. Taking the myopic approach offered by OPC would improperly hinder those efforts to the detriment of our customers and the state itself.

Q. Please summarize your testimony.

A. My testimony will focus on Witness Mara's and Witness Kollen's testimonies and explain the misinformation contained within. I will focus on three main areas: Benefits to Cost Analysis, Qualification for Inclusion in the Storm Protection Plan, and Staging Costs. As provided below, the programs DEF proposed in its SPP 2023-2032 ("SPP 2023"), all of which are extensions of the programs included in DEF's current SPP 2020-2029 ("SPP 2020"), are appropriate, consistent with the statute and rule, and should be approved by the Commission.

III. BENEFITS TO COST ANALYSIS ("BCA") DISCUSSION

Q. Both Witness Mara and Witness Kollen allege that the costs of DEF's SPP 2023 are higher than the benefits provided by the Plan. Are the Witnesses' allegations accurate?

A. No, both witnesses are incorrect. Table 1, below, summarizes present value benefits, present value costs, net present value (i.e., benefits minus costs), and the benefits to cost ratio for each program in DEF's SPP 2023. Table 1 clearly shows, without question, that DEF's programs have a benefits to cost ratio greater than 1, which indicates that the benefits are greater than the costs. DEF's Plan, as outlined in Exhibits BML-1 and BML-2, provides long-term benefits to the customers and State of Florida. I will provide further details as to why Witness Mara's and Witness Kollen's commentary on the benefits and costs are incorrect.

Table 1

Program	PV Benefits	PV Costs	NPV	B/C Ratio
D1: Feeder Hardening	$3,829,367,264	$2,016,634,712	$1,812,732,552	1.9
D2: Lateral Hardening	$8,005,067,340	$2,495,576,854	$5,509,490,486	3.21
D3: Self-Optimizing Grid (SOG)	$6,974,753,639	$228,987,548	$6,745,766,092	30.46
D4: Underground Flood Mitigation	$30,838,403	$14,369,826	$16,468,577	2.15
T1: Structure Hardening	$1,912,020,741	$1,489,983,733	$422,037,008	1.28
T2: Substation Flood Mitigation	$272,287,898	$73,697,798	$198,590,100	3.69
T3: Loop Radially Fed Substations	$110,329,885	$72,889,856	$37,440,029	1.51
T4: Substation Hardening	$287,436,172	$121,128,264	$166,307,908	2.37
Total	***$21,422,101,343***	***$6,513,268,591***	***$14,908,832,752***	***3.29***

Q. In Witness Mara's opening discussion of section 366.96, he states that "Clearly, the goal (of SPP) is to invest in storm hardening activities that benefit the customers of the of the electric utilities at a cost that is reasonable relative to those benefits." Do you agree with this statement?

A. Yes, I do agree with this statement as it is the basis for DEF's overall Storm Protection Plan. As outlined in BML-2, DEF and Guidehouse utilized a detailed analysis that measured the benefits, including customer benefits as estimated by Interruption Cost Estimator (which I will discuss below) and restoration costs savings, compared with the costs of the programs. All of DEF's SPP 2023 programs have a benefit to cost ratio greater than 1, as shown above in Table 1. I believe that DEF's SPP 2023 meets both the requirements laid forth in the Statute and rule as well as Witness Mara's statement noted above.

Q. Do you agree with Mr. Mara's contention that DEF only considered resource availability as a possible limitation to the SPP Programs' budgets?

A. Absolutely not. As DEF explained in response to interrogatory number 78, DEF began the planning process with a consideration of the appropriate level of investment to properly balance the goal of strengthening the system as directed by the legislature with the impact on customers' bills:

> DEF establishes its overall SPP program spend, including capital expenditures, with consideration of the impact to customer rates as a key consideration, but must also balance this impact with the goals and requirements of the Storm Protection Plan statute and rule and the outage risk a non-hardened grid creates during extreme weather events. The establishment of SPP program spend is accomplished at the outset of the plan development process and therefore represents an express decision not to expend greater amounts which would have a greater impact on customer rates. Thus, the entirety of the plan represents a balancing of the goals of the SPP with impact on customers' rates.

Further, Exhibit BML-2, includes Figure A-2, which is a Detailed Modeling Approach Flow Diagram. As part of the decision-making process regarding program scope, after Guidehouse identified its preferred Portfolio of programs and projects, it then moved to Step M, the "Funding and Timing Constraints" provided to it by DEF: "Guidehouse applied program- and portfolio-level funding constraints, which DEF provided. ***These represent practical limits on program implementation***." (e.s.).

Mr. Mara's opinion to the contrary ignores DEF's planning process as outlined in Exhibit BML-2 and DEF's responses to OPC's discovery requests. Moreover, I note that Mr. Mara provides no citation to where he claims DEF asserted the "only limit to the magnitude of the budgets was the limitation of resources" to complete the Plan's goals, and it appears to DEF that Mr. Mara has taken a statement regarding the consideration of "available resources" made in the context of prioritizing project deployment (see, Program Descriptions in Ex. BML-1) and conflated it with the development of Program scope.

To say that Mr. Mara has mixed apples and oranges to reach his conclusion would be an understatement. As demonstrated in Ex. BML-2 and expounded upon in DEF's response to Interrogatory 78, DEF's determination of the appropriate funding level (which by definition includes a decision on acceptable level of customer bill impact) operated as an explicit limitation on Program scope.

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Q. Witness Mara claimed that the benefits of hardening will be reduced over time as the hardening sub-program is applied to feeders that are not as vulnerable to extreme wind and may have less tree cover or stronger poles already in place. Do you agree with this assessment?

A. While I agree in principle that DEF is prioritizing projects for the most "vulnerable" areas first, as outlined in DEF's benefits to cost analysis, Rule 25-6.030 requires DEF to update its SPP at least every three years, which I believe was a very well contemplated rule as it allows an opportunity to reevaluate the system and adjust plans accordingly. For example, if a circuit is hardened through means outside of the SPP, such as during a highway relocation project or customer requested undergrounding project, the circuit could be assessed, and the plan changed. However, I am concerned that Witness Mara is discounting the customers that are served by the circuits that he says are less “vulnerable.” Those customers can still be impacted by extreme weather events and, as I stated above, should have the opportunity for their circuits to be hardened even if the benefits to cost ratio is lower than higher prioritized projects.

Q. Witness Kollen states that DEF’s benefits to cost analysis was “flawed and used to calculate excessive benefits by including the societal value of customer interruptions,” that these costs are “highly subjective,” are not “cost[s] ... actually incurred or avoided by the utility or customer” and “should be excluded from the justification of SPP programs and projects.” Do you find flaws in Witness Kollen’s statements?

A. Yes, I believe that Witness Kollen’s statements on societal benefits and their inclusion in the benefits/cost analysis are misguided. Dismissing the societal benefits misses the overall purpose of the SPP which is to protect and strengthen the grid to reduce the impact from extreme weather events so the State of Florida can return to normal business as quickly as possible. Medical facilities functioning to full capacity; roadways opened; students back in school; businesses employing workers and serving customers; citizens being able to stock their refrigerators, wash clothes and take hot showers; and tourists returning to the State’s amazing destinations. All of these societal norms have value to the customers that OPC represents beyond the reduced restoration costs, even if they are not directly realized by the utility or customer.

Personally, I have felt the “cost” of being without electricity for multiple days following an extreme weather event, costs such as bringing ice home every night so my wife, who was eight months pregnant at the time, could keep my one-year old's milk cold. I am also certain that my wife and son paid a cost of sitting in the heat and would have benefitted from having power at the house for those days.

Another example that shows the true value of having electric service to customers is, after Hurricane Irma, a customer was in such need for service that they called in a bomb threat against the facility where I was working. Obviously, this is extremely out of line, but it reinforces how customers are dependent on electricity to power their lives and benefit from having service. Not attributing a value to that benefit is shortsighted and ignores the reality faced by customers.

That said, DEF took a conservative approach in quantifying these benefits through use of the Interruption Cost Estimator ("ICE") model. The ICE model was developed by Lawrence Berkeley National Laboratory ("LBNL") and Nexant, Inc. This tool is designed for electric reliability planners at utilities, government organizations, and other entities that are interested in estimating interruption costs and/or the benefits associated with reliability improvements in the United States. The ICE Calculator is funded by the Energy Resilience Division of the U.S. Department of Energy's Office of Electricity. This non-electric benefit model has been used throughout the industry and in regulatory proceedings.

Q. Witness Mara utilizes ten years of benefits when calculating a benefit to cost ratio for the Lateral Hardening program. Is this a proper methodology for comparing programs' benefits and costs?

A. No, this is not a proper methodology for comparing programs' benefits and costs because electric utility asset investments are not intended to only last ten years, so assuming only ten years' worth of benefits compared to the costs of the programs would be understating the value of the investments. DEF's methodology properly considered the benefits programs will deliver over the life of the assets, as outlined in Exhibit BML-2, by assessing costs and benefits over a 30-year period for distribution programs and a 40-year period for transmission programs.

Q. In Witness Mara's testimony, he states "rate payers are paying more for the SPP and 'reduced' storm costs than they would if the electric utilities did no storm hardening." Do you agree with the statement?

A. No, I do not agree with Witness Mara's statement. First, to the extent Witness Mara is either arguing against the legislature's decision to create the SPP in the first place or implying that DEF should not follow the legislature's and Commission's direction to further harden the system, DEF disagrees. Second, and this is indicative of OPC's witnesses' lack of consistent comparisons, he is comparing ten years of future investment spend to only five years of historical restoration costs, when, as described above, DEF is making these investments expecting 30 to 40 years of benefits. Additionally, DEF utilized FEMA's HAZUS study which includes approximately 200 years of hurricane data, as described in Exhibit BML-2, providing a much more robust calculation of probabilistic extreme weather events and their associated restoration costs over the 30-40 year life of the hardened asset. Third, Witness Mara is only focusing on DEF's direct restoration costs savings and leaves out the true total cost of a storm to the customers as I described above.

IV. QUALIFICATION FOR INCLUSION IN THE STORM PROTECTION PLAN

Q. On June 27, 2022, OPC filed a motion to accept amended testimony along with amendments to both Witnesses' pre-filed direct testimonies. Have you reviewed the amended testimonies, and if so, what impacts do the amendments have on your rebuttal testimony?

A. Yes, I have reviewed the proposed amended testimonies. As I understand the proposed amendments, the witnesses are acknowledging that DEF's 2021 Settlement Agreement includes a provision that the costs incurred with DEF's SPP are properly recovered through the SPPCRC and have been removed from base rates as required by the SPP Statute and Rule. As such, I understand that the witnesses are no longer advocating for exclusion of any Programs from the Plan (at least for cost recovery years 2023-2024). I agree with this result, but would argue further that Programs appropriate for inclusion in the Plan (and recovered through the SPPCRC) for two years of the planning period are likewise appropriate for the Plan (and SPPCRC recovery) for the third year as well.

Because the amended testimonies continue to include the incorrect premises and assumptions, mischaracterizations and misunderstandings, and unreasonably constricted interpretation of the governing statute and rule, I continue to believe it is appropriate to address those issues for the Commission notwithstanding that the witnesses are no longer advoacating for exclusion of certain programs.

Q. In Witness Mara's testimony, he opines that not all of DEF's SPP programs qualify for the Plan and therefore should be excluded from the Plan by the Commission. Do you agree with Witness Mara's opinion?

A. No, I do not agree with Witness Mara's opinion as I believe all of DEF's SPP Programs qualify for inclusion per the statute and rule and should be approved by the FPSC. I also note that they are the same Programs included in DEF's current SPP 2020 approved by the Commission in 2020. The programs submitted are projected to reduce restoration costs and/or reduce outage durations during extreme weather events, while improving overall reliability, and therefore the Plan as a whole will meet the objectives of the statute and rule. I will address why I disagree with Witness Mara's opinion and inaccuracies in the testimony for the Distribution programs Feeder Hardening, Lateral Hardening, Self-Optimizing Grid, and Underground Flood Mitigation. Witness Howe will address DEF's disagreements with Mr. Mara's incorrect assertions and conclusions regarding DEF's Transmission programs and subprograms.

Q. Witness Mara recommends that the Feeder Hardening and Lateral Hardening programs be capped at $1.5B and $2.2B, respectively, to align with DEF's SPP 2020-2029 instead of the "substantial increase in capital expenditures proposed by DEF." Did DEF propose a "substantial increase" over its SPP 2020-2029?

A. No, DEF has not proposed a "substantial increase" when compared to its SPP 2020. The original SPP included transitional years 2020 and 2021 as the Company worked to complete other projects and ramp up engineering and construction resources to prepare for the SPP. As shown in Docket No. 20200069, Exhibit JWO-2, DEF had zero work planned under SPPCRC in 2020 and only had Feeder Hardening and Structure Hardening for 2021. DEF's proposed SPP 2023 reaches a steady state and the last three years of this Plan replace the first three years of SPP 2020, making it appear to be an increase when it is truly a continuation of the plan that was previously approved in Docket No. 20200069. Mr. Menendez provides additional detail on this point in his rebuttal testimony.

Q. Do you agree with Witness Mara's assertion that the cost for corrective actions to address clearance encroachments should not be included in the Storm Protection Plan?

A. No, I do not aggree with Witness Mara's assertion on page 18 of his testimony. Given that new pole locations, sizes and guying will be required when designing a hardened system, DEF will indeed find situations where proper clearances cannot be met with existing overhead structures along and in the public right of way. DEF also must maintain clearance to other existing public and privately owned underground facilities which can further reduce potential pole and guying locations. DEF maintains that newly installed facilities should remain open to truck access for maintenance purposes and should be in easements or adjacent to roadways as outlined in Rule 25-6.0341 (Location of the Utility's Electric Distribution Facilities). DEF is not in agreement with any portion of Witness Mara's conclusion relative to clearance encroachments as outlined on pages 17 and 18 as it does not consider these issues, even though they were discussed in Exhibit BML-1 on pages 7 and 17.

Q. The Self-Optimizing Grid program was addressed by Witness Mara as a program that should not qualify for the Storm Protection Plan as it does not reduce the number of outages. Do you agree with Witness Mara's assessment?

A. No, I do not agree with this assessment because the Self Optimizing Grid program does reduce the number of outages. The design and function of the Self Optimizing Grid, as described in Exhibit BML-1, is to sectionalize the grid into sections that serve smaller number of customers and creates ties between circuits to allow the transferring of customers when a fault occurs during an extreme weather event. On a typical circuit, this will reduce the number of outages caused by a fault during extreme weather by approximately 75%.

Q. But Witness Mara states that the Self Optimizing Grid "system is not effective during an extreme weather event" because it is "doubtful that adjacent feeders will be available because the adjacent feeders will likely have suffered an outage as well" and that "DEF has not provided any evidence the system will be a benefit during extreme weather events." Do you agree with Witness Mara's opinion?

A. No, I do not agree with Witness Mara's conclusion, nor do I agree with his highly speculative premise regarding the availability of neighboring feeders, which is based on a very specific instance of hypothetical damage that is then over-generalized for purposes of reaching a predetermined conclusion. Although I concede that if a Category 5 hurricane were to cause severe damage to a concentrated area similar to what occurred with Hurricane Michael, the adjacent feeder is "likely [to] have suffered an outage," I would state that DEF, as I described in my summary, is deploying Self Optimizing Grid to reduce outages during all levels of extreme weather events, including, but not limited to, Tropical Depressions; Tropical Storms; Hurricanes; tornadoes; coastal and inland flooding; and lightning storms. During these types of events, it is very likely that adjacent feeders will be available for customer transfers, thus reducing the number and duration of outages. Additionally, DEF's Feeder Hardening program is designed to strengthen the feeders to increase the likelihood that adjacent circuits are available, which underscores the inter-related nature of the SPP.

In fact, had OPC requested the information prior to filing its testimony, DEF could have shared that the Self Optimizing Grid system has proven to be very effective during extreme weather events. As shown in Exhibit BML-4, since the inception of the Self Optimizing Grid, and its predecessor Self-Healing Teams, over 25% of the total customer minutes of interruption saved by the systems have been during extreme weather events.

Q. If the Self Optimizing Grid program was disallowed as Witness Mara recommends, would there be negative impacts to DEF's overall Storm Protection Plan?

A. Yes, there would be negative impacts. DEF's Storm Protection Plan is the sum of its parts with the programs working together to reduce restoration costs and outage times associated with extreme weather events. As I stated above, during an extreme weather event, the Feeder Hardening and Self Optimizing Grid programs work in tandem to reduce outages by allowing customers to be served via multiple, hardened circuits.

Q. Witness Mara states that DEF's Underground Flood Mitigation program should be eliminated because it is obvious to him that it is being used to fund the replacement of aging equipment. Do you agree with Witness Mara's assessment?

A. No, I do not agree with Witness Mara's assessment because it is, once again, built upon a false premise. Witness Mara's conclusion is apparently based on the assumption that the replacement of 7 switchgear and 24 transformers in 2021 were passed through the Storm Protection Plan Cost Recovery Clause ("SPPCRC"). This is incorrect; these replacements were included in base rates as Witness Mara said should have been the case. In DEF's SPP 2020 and in subsequent SPPCRC filings, it was shown that the Underground Flood Mitigation program was not going to begin as a part of SPPCRC until 2022. This demonstrates the conflation of the SPP and recovery of costs through the SPPCRC more thoroughly discussed by Mr. Menendez.

Q. Could aging equipment be replaced in the Underground Flood Mitigation program?

A. The focus of the program, as described in Exhibit BML-1, is to harden existing underground distribution facilities in locations that are prone to storm surge during extreme weather events. Although the program could include aging equipment being replaced, that is not the driving factor for target selection.

Q. Witness Mara notes that the Floramar project planned for 2023 is likely to have livefront transformers. Is this accurate?

A. No, it is not accurate. Mr. Mara opined that it was likely to have livefront transformers (plural). Yet, of the 110 transformers in the Floramar area targeted for Underground Flood Mitigation, DEF's records show that only one (1) transformer (singular) is an existing livefront. 1 out of 110. This reinforces that DEF is not selecting targets to address aging units, but instead is focusing on areas that are prone to storm surge during extreme weather events.

Q. Witness Mara states that "hardening means to design and build components to a strength that would not normally be required" and that "aging infrastructure" should not be replaced in the Storm Protection Plan. Do you agree with Witness Mara's statement?

A. No, I do not agree with Witness Mara's statement. As Witness Howe describes in detail in her testimony, replacing "aging infrastructure" hardens the system. With my disagreement with Witness Mara's recommendation that the Underground Flood Mitigation program should be eliminated from SPP (page 26 lines 8 through 10), I will note that DEF plans to replace existing conventional switchgear, what would normally be required, with submersible switchgear designed to withstand the potential storm surge and flood waters thus meeting Witness Mara's proposed requirements.

Q. But Witness Mara believes that DEF is not using submersible switchgear within the Underground Flood Mitigation program. Is he correct?

A. No, Witness Mara is not correct. He is misinterpreting information DEF provided in response to OPC's Request for Production of Documents ("POD") 21 and omitting information provided in response to OPC's POD 15. POD 21, as shown in the table on page 26 of Witness Mara's testimony, provides the names of base rate projects; Witness Mara misinterprets the types of existing switchgear as the type that would be installed upon replacement. As provided in response to POD 15, DEF's Distribution Standard Manual states that "Flooding and Storm Surge Requirements" are the use of "Submersible Switchgear."

V. STAGING COSTS

Q. Witness Mara states that if DEF's system is hardened, it "should logically spend less on pre-staging and would be expected to limit the amount of staging they do ahead of a storm." Can you please explain why Mara's statement is counter to the intent of the Storm Protection Plan statute and rule?

A. Yes. The statute and rule are focused on enhancing the utility's existing infrastructure for the purposes of reducing restoration costs and reducing outage times. The SPP rule does not require the utility to provide details on its restoration processes. DEF scales its restoration efforts to meet the magnitude of the expected extreme weather event, pre-staging included.

Pre-staging resources is a critical step in the restoration planning process as it ensures that the necessary personnel are in place and ready to perform necessary activities to reduce outage times and return the State of Florida to normal operations. When the SPP hardening efforts are completed, the overall restoration efforts will be reduced but DEF will still pre-stage resources as necessary to respond to the anticipated scope of the impending event to ensure customers impacted by extreme weather events are restored as safely and swiftly as possible.

VI. CONCLUSION

Q. Mr. Lloyd, your rebuttal covers a lot of ground, but did you respond to every contention regarding the Company's proposed plan in your rebuttal?

A. No. Intervenor testimony on the SPP involved many pages of testimony and I could not reasonably respond to every single statement or assertion and, therefore, I focused on the issues that I thought were most important in my rebuttal testimony. As a result, my silence on any particular assertion in the intervenor testimony should not be read as agreement with or consent to that assertion.

Q. Does this conclude your testimony?

A. Yes.

MR. BERNIER: Thank you, sir. We waive summary and tender the witness for cross.

CHAIRMAN FAY: Okay. Great. Thank you. Mr. Rehwinkel, you are recognized.

MR. REHWINKEL: Thank you, Mr. Chairman and good afternoon, Mr. Lloyd.

THE WITNESS: Good afternoon.

EXAMINATION

BY MR. REHWINKEL:

Q I need to reposition so I don't -- aside from the requirements of the rule, as a matter of logic, DEF would only proceed with the discretionary SPP programs and costs if the benefits, however measured, are greater than the costs, is that correct?

A While all of our projects and programs that we have submitted for the 2023 storm protection plan the benefits do outweigh the cost, we do not necessarily agree that every project must have a cost.

Q So is your answer you wouldn't proceed -- you would proceed even if the costs exceeded the benefits?

A Yes, sir. In certain situations, we would proceed. Again, I'll reinforce that all of the projects and programs that we submitted for our SPP 2023, the benefits do exceed the cost.

Q So at least for the facts on the ground in

this case, you proceeding on the principle that benefits exceed costs as you measure them?

A Yes, sir. Again, for our SPP 2023, but we do not believe that projects must always -- the benefits must always exceed the costs.

Q Would you agree that as a core principle in your SPP 2023 -- that's what you call it, right?

A Yes, sir.

Q That spending on a program or project is maximized when it no longer provides incremental dollar benefits compared to the costs?

A Can you repeat that question for me, please, sir?

Q Yes. Would you agree that it is a core principle in DEF's SPP 2023 that spending on a program or project is maximized when it no longer provides incremental dollar benefits compared to the cost?

A To be honest, I'm not sure I follow the question.

Q Well, in your 2023 -- SPP 2023, you are not proposing to spend more on a project than benefits realized, is that right?

A That is correct. I'll restate again that all the projects submitted in our SPP 2023, the benefits outweigh the cost. I will say again, though, that DEF does not believe that that is the sole litmus test that must be measured for a project, as there are some projects that may serve, you know, rural customers where a cost to strengthen the grid for those rural customers, where the density may be lower, you know, may not outweigh the benefits, but it's still necessary that those rural customers still get an opportunity to have hardened assets.

Q Let's go to your direct -- I mean your rebuttal, revised rebuttal. On page five. You agree on lines 9 through 14, including the Q&A there are the questions including the question with this point that we just went over, right?

A Yes, sir, for our SPP 2023. Yes, sir.

Q Okay. In the table on this same page, you compare the net present value of the dollar benefits to the net present value of the costs for each of the SPP '23 programs, is that right?

A We compare the benefits to the cost. Yes, sir. Present value.

Q And turning to page -- well, from line 14 on page five through line two on page six, if you could just review that.

A Yes, sir.

Q Is it fair to say that in that testimony you

make the point that your calculations of the dollar benefits of the SPP programs, compared to the costs comply with the requirements of the SPP rule?

A Yes, sir.

Q And the requirements of the SPP rule, with which this testimony indicates you're in compliance with, are the requirements to calculate the benefits of the program and compare them to the costs?

A I'll reinstate from the other day I'm not a lawyer.

Q Understood.

A I don't think that's been said enough here today. But the rule, I believe, requires a comparison between the two.

Q And three -- 3D4. Do you agree with that?

A A comparison of the costs identified and the benefits identified, yes, sir.

Q Okay. And for purposes of this testimony in preparation of SPP 2023, you interpreted -- you, meaning Duke -- interpreted the rule to mean dollar benefits, not simply -- not simple qualitative threshold test of reductions and outage times and outage restoration costs without any quantifications of the reductions in outage times and restoration costs, is that right?

A As I stated the other day in my direct testimony, we did analyze it in that form, but, you know, that is one way to skin a cat, if you will.

Q Yes. Those of us who owns cats disagree with that, but I understand what you're saying. On page seven --

A Of rebuttal?

Q Yes. Actually, let's don't ask that question because that's in -- we'll address that on the proffer side.

A Yes, sir.

Q I apologize. Would it be fair to say that you, and DEF, calculated the customer benefits in addition to the avoided storm costs and use the sum of these two benefits and the comparison of the benefits to the costs of this, of the programs and the SPP '23?

A Yes, sir. I described yesterday Duke Energy used both the avoided restoration costs as well as the -- placed a value of the customer benefits as calculated by the DOE's ICE model.

Q Okay. So you just answered my next question there. And the ICE model is Interruption Cost Estimator?

A That is correct. Yes, sir.

Q So the Interruption Cost Estimator calculates societal benefits of reductions in customer

interruptions using assumptions developed through customer surveys and other sources that cannot otherwise be objectively quantified. Would you agree with that?

A Yes, sir, I would agree with that.

Q Could you look at page nine, lines 19 through 21 of your rebuttal, and just familiarize yourself with that?

A 19 through 21, sir?

Q Yes, sir.

A Yes, sir.

Q Herein you state that your belief that these societal benefits or norms have value to customers, even if they cannot be directly quantified in the form of reductions and restoration costs.

A I'm sorry. Is there a question there?

Q Yes. Is that -- is that what --

A Yes, sir, that's what my rebuttal says.

Q And referring back to table one on page five, is it your testimony that the present value of the benefits of the 2023 SEP, or SPP 2023, is $21.4 billion over a 30-year period for distribution programs and 40 years for the transmission programs?

A Give me one moment to check for something, sir.

Q Sure. You could look on page 11, lines one

through five.

A I want to check one other place.

Q Okay.

A I believe the way that we calculated that was after full deployment, the costs that we would see over the lifetime of the assets.

Q Okay. And what do you mean by full deployment?

A After the full deployment of the 10-year storm protection plan.

Q Okay.

A Sorry. Yes, sir.

Q In table one, the benefits are determined over 30 to 40 years, as we've discussed, and then on the segment of the grid, what are the costs -- what are costs based solely on -- are the costs based solely on the 10-year plan or a full build out over the 30 to 40 years? I think you've answered that, but I want to make sure.

A Yes, sir. This is based on the 10-year storm protection plan 2023.

Q Okay. So do you have your direct testimony with you?

A I do.

Q I just want to take you back to something you

said there and -- on page -- actually, BML2 is what I really want to take you to, page 10 of 41. And if -- you're there?

A Yes, sir.

Q So you're expected to avoid an estimated $56.5 million in storm restoration costs annually, as shown here?

A Yes, sir.

Q So not even doing a present value analysis, the total savings over the 30 years would be about $1.695 billion, or 30 times 56.5?

A Subject to check, I'd agree with that.

Q Okay. And to arrive at a present value of $21.4 billion as shown on table one, nearly $20 billion of that $21.4 billion in customer value is based on the monetized benefits using the ICE calculator. Would you agree with that?

A I would agree with that. Duke Energy utilizing the ICE model captured all of the value that our customers see from not having outages. And I'll also add that it is really a conservative number, actually, as the current ICE model caps outage time at 16 hours. I think we all would agree that during a extreme weather event, outages could exceed 16 hours. So, yes, we are capturing the true value of, you know, continuous power to customers.

Q Now, this value proposition that's shown here of $21.4 billion, of which 20 billion is based on customer value as monetized in the ICE calculator, that was not included in your direct testimony, was it?

A I do not believe I reference it in my direct testimony, no.

Q Would you agree with me that the first time this presentation of customer value and a cost benefit analysis was in the rebuttal?

A I would not agree. No, sir.

Q You would not agree?

A No. In BML2 we referenced the use of the ICE calculator, or the ICE model, to calculate customer --

Q Okay. But the 21.4, of which 20 of it was ICE calculator derived, was not presented in BML2, was it?

A That is correct. It was not presented in the BML.

Q Let's go to page 15, and I want you -- I want to take you to lines one and two. And you may want to read the question before I ask you about the answer there.

A Okay.

Q So if a lateral serving ten homes has a pole that breaks and wires fall to the ground, is that

considered a power outage?

A Ask me one more time.

Q If a lateral serving ten homes has a pole that breaks and the wires fall to the ground, would that be a power outage for the ten homes?

A In this hypothetical situation, if a fault occurs, there would be an outage to the ten homes off that lateral line.

Q Okay. And so the 10 homeowners would be without power, right?

A Until a restoration could be conducted.

Q But in that circumstance, only one outage needs to be repaired, is that right? They need to fix the pole and put the lines back up in the air.

A The restoration efforts needed would be to fix the one hypothetical pole, but ten customers experience the outage involved with it.

Q Okay. On this passage that I asked you to look at, would you agree that a self-optimizing grid program does reduce the number of outages?

A It reduces the number of outages experienced by our customers, yes.

Q Okay. Do you mean that it reduces the number of outages to be fixed by a construction crew or does the system reduce the number of customers that suffer a

loss of power?

A It reduces the number of customers that experience the outage.

Q Okay. Would you agree that a self-healing system does not reduce the number of poles to replace or the number of wires down caused during an extreme weather event?

A I would agree with that, yes.

Q Okay. Would you agree that Mr. Mara recommended that the self-healing system be eliminated from the SPP?

A I agree that was his testimony, but I do not agree with his logic that he came to that conclusion.

Q Okay. Did he recommend that the self-healing system has no value to customers, or that it should not be implemented at all?

A I do not recall.

MR. REHWINKEL: I think I can cut out some questions here, Mr. Chairman, if you'd just give me a second.

CHAIRMAN FAY: Okay.

MR. REHWINKEL: I think it's always a good thing, isn't it?

MR. BERNIER: Mr. Chairman, could I have one second to speak with Mr. Rehwinkel?

CHAIRMAN FAY: Sure. Yeah.

BY MR. REHWINKEL:

Q Mr. Lloyd, just for the purpose of my question to make sure that I've asked it in the proper form, I was asking you if Mr. Mara suggested that the self-healing system should not be allowed after the year 2024. Do you agree with that, or if you know?

A I believe you're alluding to the settlement agreement?

Q Yes.

A I'm not sure.

Q Okay. I was not trying to ask you about the testimony that we withdrew on the point about '23 and '20, for the record.

On page 11 of your rebuttal testimony and the Q&A that starts on line seven, in your answer that is -- starts on line 10, you stated you disagree with Mr. Morra's testimony that ratepayers are paying more for the SEP and reduced storm costs than they would if electric utilities did no storm hardening. Is that right?

A Yes, sir.

Q Okay. And as we just discussed about BML2, page 10 of 41, you have projected or estimated avoiding $56.5 million in storm restoration costs annually, is

that right?

A That is correct.

Q So would you agree with me that the total capital cost for SPP 2023 are about $7.3 billion?

A Yes, sir, I would agree with that.

Q And based on your SPP, the estimated annual storm restoration costs is $56.4 million. And after 40 years, $2.26 billion would be saved in storm restoration costs; is that right?

A Yes, I would agree with that, but reinforce that Duke Energy took into consideration the value to the customer as calculated by the interruption cost estimate.

Q So would you agree with me that the 40-year reduced storm costs would be less than the 10-year SPP capital budget?

A Based on average years of storms, yes, sir, I would agree that the -- that would be less.

Q Let's try again to talk about the Hurricane Dorian question I was asking you on your direct. So let me see if I can -- I can do a better job of this. First of all, do you have -- you have Mr. Mara's -- actually, let me try to do it without going through the exhibits.

Would you agree that costs incurred under the similar circumstances that the company experienced in

Hurricane Dorian, where a category-five storm threatened the company, and caused you to reasonably stage resources to address the impending impact, but the storm never physically crossed the state of Florida, turned to the north. Would you agree that under circumstances like that, that storm restoration costs, or outage related costs, would not be materially reduced by any of the measures contained in the SPP?

A Duke Energy assess -- assesses -- excuse me -- assesses each storm individually. And so we would take any impeding hypothetical storm that was going to impact our system and make decisions on what resources were deemed necessary for that storm. And at the conclusion of the storm protection plan, when the system is hardened, you know, we would evaluate that hardened system, determine what type of resources would be needed for a safe and swift restoration and the return to normal for the state of Florida.

Q Is -- isn't a true that customers could pay to implement the SPP 2023 and then in -- your 2031 is your last year, right -- '32. So in 2023 you could have a storm the magnitude and impact that Hurricane Irma had on your company, and instead of the average restoral time underlying the storm, being what it was when Irma hit, you could still spend the same amount of money just

to put customers back in service in even less time than you did in Irma, is that right?

MR. BERNIER: I'll just object to the extent it calls for speculation. Thank you.

CHAIRMAN FAY: I think to the extent you can respond with your knowledge, it's appropriate.

THE WITNESS: Thank you, Mr. Chairman. Can you please repeat yourself?

BY MR. REHWINKEL:

Q Yes. So a storm like Irma, let's say a storm that same magnitude, same impact throughout your system, and that storm, as I recall, it went almost through your entire system of the state of Florida, right?

A I'll just say, yes, it did.

Q So let's say you had a storm like that in 2033, after you've implemented SPP 2023, and assuming that you had all the improvements and hardening and undergrounding that you intend, such that far fewer customers were out of service, isn't it true that you could spend the same amount of money you spent in Irma just to put the remaining customers who are out of service in service even faster?

A That hypothetical situation is not something that I necessarily can calculate here on the stand. And per you, I don't wish another Irma to come through this state again, hardened system or non-hardened system. But what we have shown in our storm protection plan is the estimated annual savings that we would see on an average storm year. Law of averages, say, some years you could save more, some years you could save less. Depending on where this hypothetical storm hits would really drive what that restoration effort would look like and what that restoration cost would be. I can't sit here and think about something I'm not sure what's going to happen in the future.

Q Okay. But there is no -- well, strike that question. I think, with that, those are all the questions I have for you. I think the exhibits I gave you are really for Mr. Menendez. So I'll spare you that.

MR. REHWINKEL: Thank you, Mr. Chairman.

CHAIRMAN FAY: Thank you, Mr. Rehwinkel. Nucor.

MR. MATTHEIS: No questions.

CHAIRMAN FAY: Okay. Mr. Moyle.

EXAMINATION

BY MR. MOYLE:

Q So how much of Duke ratepayers saved this year, this summer from the storm protection plan?

A That is not something that I have calculated in preparation for this hearing.

Q You guys haven't had any storms, right?

A I assure you, we've had plenty of storms.

Q In terms of named tropical storms.

A We've not had any named tropical storms, but this storm protection plan is built on all sorts of extreme weather events, and I think we all know and experienced just the other day in direct testimony, there was a nasty thunderstorm that hit Tallahassee. All sorts of extreme weather hits Duke Energy service territory on any given day. And the investments that we've made thus far in the storm protection plan have already bared fruit for Duke Energy's customers in terms of restoration savings.

Q Will you be calculating that on an annual basis, so if this Commission at some point wants to say, let's see how you're doing each year, and can you -- will you be able to tell them, this year we saved X. Last year we saved Y?

A If that was something that the Commission were to request, we would certainly, you know, comply with any of their requests or orders.

MR. MOYLE: That's all I have.

CHAIRMAN FAY: Thank you. Ms. Eaton.

MS. EATON: I don't have any questions. Thank you.

CHAIRMAN FAY: Okay. Staff.

MR. IMIG: No questions.

CHAIRMAN FAY: Commissioners? Okay. Any redirect?

MR. BERNIER: Just very briefly, Chairman.

FURTHER EXAMINATION

BY MR. BERNIER:

Q Mr. Lloyd, Mr. Rehwinkel was asking you a fair number of questions regarding the projected capital spend, et cetera, in the SPP. If that spend were to be reduced, what kind of impact do you think that would have on the benefits being projected under the plan?

A Yeah. So as we analyzed our storm protection plan, we looked at various levels of spending, various models. And one of those models that we looked at, you know, we called the low model. And we had a reduction of CMI savings, you know, in the 40 million minutes for that reduction in spend. And 40 million minutes may not be something that, you know, anyone can wrap their head around. So I always like to think about what those customer impacts are going to be like. And 40 million minutes on an average storm year would be like extending the restoration efforts for as many customers as we have in north Florida or in a single day. One day. So one more day without hospitals, one more day without schools, one more day with lift stations not functioning, one more day without communications, one more day of life stopped for a number of customers equal to our north Florida territory. That's a lot of customers that would be impacted if we reduce the spend in our SPP. You know, we feel that or -- you know, the reasonable impact from a cost perspective, it's significant impact to the benefits.

MR. BERNIER: Nothing further from me.

CHAIRMAN FAY: Okay. With that, we will move into the proffered testimony, which I believe is only maybe two paragraphs here, but --

MR. BERNIER: I think it's just one question.

CHAIRMAN FAY: Go ahead, Mr. Bernier.

MR. BERNIER: DEF would like to proffer for purposes of the record Mr. Lloyd's June 30th rebuttal testimony for the purposes of the record for appeal.

CHAIRMAN FAY: Okay. Show that proffered.

(Whereupon, prefiled rebuttal proffered testimony of Brian Lloyd was inserted.)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REVIEW OF STORM PROTECTION PLAN, PURSUANT TO RULE 25-6.030, F.A.C., DUKE ENERGY FLORIDA, LLC.

DOCKET NO. 20220050-EI

REBUTTAL TESTIMONY OF BRIAN M. LLOYD

ON BEHALF OF DUKE ENERGY FLORIDA, LLC

JULY 1, 2022

I. INTRODUCTION AND QUALIFICATIONS.

Q. Please state your name and business address.

A. My name is Brian M. Lloyd. My current business address is 3250 Bonnet Creek Road, Lake Buena Vista, FL 32830.

Q. Have you previously filed direct testimony in this docket?

A. Yes, I filed direct testimony supporting the Company's SPP on April 11, 2022.

Q. Has your employment status and job responsibilities remained the same since discussed in your previous testimony?

A. Yes.

II. PURPOSE AND SUMMARY OF TESTIMONY.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my testimony is to provide the Company's rebuttal to certain assertions and conclusions contained in the direct testimonies of OPC's witnesses Kollen and Mara. Ms. Howe and Mr. Menendez will present additional rebuttal of the testimonies of OPC's witnesses Kollen and Mara.

Q. Do you have any exhibits to your testimony?

A. Yes, I am sponsoring the following exhibit to my rebuttal testimony:

- Exhibit No. __ (BML-4), 712 Self-Healing Team Benefits Report

This exhibit was prepared by the Company in the normal course of business and is true and correct to the best of my information and belief.

Q. At the outset, do you have any over-arching concerns with OPC's positions in this docket?

A. Yes, I do. While I am not a lawyer (though I note that neither of OPC's witnesses are lawyers either), it appears to DEF that their interpretation of the SPP statute and rule is overly constricted, to the point of essentially eliminating much of what DEF believes was the Legislature's and Commission's intent in enacting the statute and rules.

Q. Can you explain what you mean?

A. Yes. From DEF's perspective, the Legislature directed the utilities to develop integrated storm protection plans that as a whole achieve the goals of reducing restoration costs and outage times to customers and improving overall service reliability. DEF has followed that directive by crafting a systematic Plan that includes a suite of programs that, overall, are intended to accomplish these goals, over time, in a cost-effective manner. If, as OPC and specifically Mr. Mara suggest, the Company was required to limit its proposed programs to just those that themselves are projected to accomplish the goals set out in the statute, the ability to systematically harden the system against the effects of extreme weather would be seriously curtailed.

Said differently, I believe OPC has lost the forest for the trees. DEF operates an integrated system, from generation, to transmission, and then ultimately distribution to our customers. As such, system planning requires a highly integrated and interconnected approach, taking into account the impact actions directed at one component will have on the remainder of the system. That is, assuming without agreeing that an individual program "only" reduced restoration costs while another "only" reduced outage times, the two programs combined would achieve the legislature's goals. DEF believes this is what the legislature intended when it directed the utilities to file a plan explaining the Company's systematic approach to achieving the identified goals.

Moreover, DEF is required to plan for a range of contingencies and cannot assume a "one size fits all" approach. For example, the "extreme weather conditions" we must be prepared for include, but are not limited to, heavy rain events, lightning, coastal flooding, inland flooding (e.g., rivers), and gale-force winds. These events can occur on almost any given day and are not constrained to tropical weather systems, though those are the most oft thought of example of extreme weather in Florida. Further, even within the context of tropical weather systems, we know that each storm is unique in the degree, type, and concentration of damage – for example, Irma impacted almost the entirety of the state causing widespread damage while Michael was much more concentrated but nevertheless caused extreme damage in the impacted areas.

The point being, our intent, which we believe aligns with the legislature's directive, was to propose a holistic Plan to systematically harden the system to better withstand the range of extreme weather conditions expected to impact the state. The Plan, as a whole, is projected to achieve the multi-pronged goals of reducing storm restoration costs, outage times, and improving overall reliability. Taking the myopic approach offered by OPC would improperly hinder those efforts to the detriment of our customers and the state itself.

Q. Please summarize your testimony.

A. My testimony will focus on Witness Mara's and Witness Kollen's testimonies and explain the misinformation contained within. I will focus on three main areas: Benefits to Cost Analysis, Qualification for Inclusion in the Storm Protection Plan, and Staging Costs. As provided below, the programs DEF proposed in its SPP 2023-2032 ("SPP 2023"), all of which are extensions of the programs included in DEF's current SPP 2020-2029 ("SPP 2020"), are appropriate, consistent with the statute and rule, and should be approved by the Commission.

III. BENEFITS TO COST ANALYSIS ("BCA") DISCUSSION

Q. Both Witness Mara and Witness Kollen allege that the costs of DEF's SPP 2023 are higher than the benefits provided by the Plan. Are the Witnesses' allegations accurate?

A. No, both witnesses are incorrect. Table 1, below, summarizes present value benefits, present value costs, net present value (i.e., benefits minus costs), and the benefits to cost ratio for each program in DEF's SPP 2023. Table 1 clearly shows, without question, that DEF's programs have a benefits to cost ratio greater than 1, which indicates that the benefits are greater than the costs. DEF's Plan, as outlined in Exhibits BML-1 and BML-2, provides long-term benefits to the customers and State of Florida. I will provide further details as to why Witness Mara's and Witness Kollen's commentary on the benefits and costs are incorrect.

Table 1

Program	PV Benefits	PV Costs	NPV	B/C Ratio
D1: Feeder Hardening	$3,829,367,264	$2,016,634,712	$1,812,732,552	1.9
D2: Lateral Hardening	$8,005,067,340	$2,495,576,854	$5,509,490,486	3.21
D3: Self-Optimizing Grid (SOG)	$6,974,753,639	$228,987,548	$6,745,766,092	30.46
D4: Underground Flood Mitigation	$30,838,403	$14,369,826	$16,468,577	2.15
T1: Structure Hardening	$1,912,020,741	$1,489,983,733	$422,037,008	1.28
T2: Substation Flood Mitigation	$272,287,898	$73,697,798	$198,590,100	3.69
T3: Loop Radially Fed Substations	$110,329,885	$72,889,856	$37,440,029	1.51
T4: Substation Hardening	$287,436,172	$121,128,264	$166,307,908	2.37
Total	***$21,422,101,343***	***$6,513,268,591***	***$14,908,832,752***	***3.29***

Q. In Witness Mara's opening discussion of section 366.96, he states that "Clearly, the goal (of SPP) is to invest in storm hardening activities that benefit the customers of the of the electric utilities at a cost that is reasonable relative to those benefits." Do you agree with this statement?

A. Yes, I do agree with this statement as it is the basis for DEF's overall Storm Protection Plan. As outlined in BML-2, DEF and Guidehouse utilized a detailed analysis that measured the benefits, including customer benefits as estimated by Interruption Cost Estimator (which I will discuss below) and restoration costs savings, compared with the costs of the programs. All of DEF's SPP 2023 programs have a benefit to cost ratio greater than 1, as shown above in Table 1. I believe that DEF's SPP 2023 meets both the requirements laid forth in the Statute and rule as well as Witness Mara's statement noted above.

Q. Do you agree with Mr. Mara's contention that DEF only considered resource availability as a possible limitation to the SPP Programs' budgets?

A. Absolutely not. As DEF explained in response to interrogatory number 78, DEF began the planning process with a consideration of the appropriate level of investment to properly balance the goal of strengthening the system as directed by the legislature with the impact on customers' bills:

> DEF establishes its overall SPP program spend, including capital expenditures, with consideration of the impact to customer rates as a key consideration, but must also balance this impact with the goals and requirements of the Storm Protection Plan statute and rule and the outage risk a non-hardened grid creates during extreme weather events. The establishment of SPP program spend is accomplished at the outset of the plan development process and therefore represents an express decision not to expend greater amounts which would have a greater impact on customer rates. Thus, the entirety of the plan represents a balancing of the goals of the SPP with impact on customers' rates.

Further, Exhibit BML-2, includes Figure A-2, which is a Detailed Modeling Approach Flow Diagram. As part of the decision-making process regarding program scope, after Guidehouse identified its preferred Portfolio of programs and projects, it then moved to Step M, the "Funding and Timing Constraints" provided to it by DEF: "Guidehouse applied program- and portfolio-level funding constraints, which DEF provided. ***These represent practical limits on program implementation***." (e.s.).

Mr. Mara's opinion to the contrary ignores DEF's planning process as outlined in Exhibit BML-2 and DEF's responses to OPC's discovery requests. Moreover, I note that Mr. Mara provides no citation to where he claims DEF asserted the "only limit to the magnitude of the budgets was the limitation of resources" to complete the Plan's goals, and it appears to DEF that Mr. Mara has taken a statement regarding the consideration of "available resources" made in the context of prioritizing project deployment (see, Program Descriptions in Ex. BML-1) and conflated it with the development of Program scope.

To say that Mr. Mara has mixed apples and oranges to reach his conclusion would be an understatement. As demonstrated in Ex. BML-2 and expounded upon in DEF's response to Interrogatory 78, DEF's determination of the appropriate funding level (which by definition includes a decision on acceptable level of customer bill impact) operated as an explicit limitation on Program scope.

~~Q. Witness Kollen recommends that the Commission reject all proposed SPP projects that do not have a benefit to cost ratio of at least 100%. Do you see an issue with this recommendation?~~

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~~A. Yes, I do. Although all of DEF's programs contained within its SPP 2023 have a benefit to cost ratio of at least 100% (as shown in Table 1), there are individual projects within those programs that do not meet a 100% benefits to cost ratio. The rule does not require *projects* to meet a specific threshold, but rather requires a comparison of the description of projected *Program* benefits to costs. In fact, Mr. Mara's newly proposed requirement would exclude a large number of DEF's customers who may live in areas where hardening~~

~~is necessary but may not be as economically practical as areas with greater customer density from receiving any direct benefits from the hardening programs they are helping to fund. This litmus test would exclude many customers from outage relief during a major storm event solely based on geography or the relative cost of needed upgrades in their area, although these same customers would be paying the same rates as those who have received these benefits. DEF completely disagrees that such a result was intended by the legislature or Commission.~~

~~The transmission and distribution systems are integrated and work together while serving our customers. As Witness Howe discusses in detail in her testimony, the coalescence of the individual pieces form the connected grid and applying the Storm Protection Plan programs to them in the manner outlined in DEF's plan ensures all links in the chain are addressed to serve customers.~~

Q. Witness Mara claimed that the benefits of hardening will be reduced over time as the hardening sub-program is applied to feeders that are not as vulnerable to extreme wind and may have less tree cover or stronger poles already in place. Do you agree with this assessment?

A. While I agree in principle that DEF is prioritizing projects for the most "vulnerable" areas first, as outlined in DEF's benefits to cost analysis, Rule 25-6.030 requires DEF to update its SPP at least every three years, which I believe was a very well contemplated rule as it allows an opportunity to reevaluate the system and adjust plans accordingly. For example, if a circuit is hardened through means outside of the SPP, such as during a highway relocation project or customer requested undergrounding project, the circuit could be assessed, and the plan changed. However, I am concerned that Witness Mara is discounting the customers that are served by the circuits that he says are less "vulnerable." Those customers can still be impacted by extreme weather events and, as I stated above, should have the opportunity for their circuits to be hardened even if the benefits to cost ratio is lower than higher prioritized projects.

Q. Witness Kollen states that DEF's benefits to cost analysis was "flawed and used to calculate excessive benefits by including the societal value of customer interruptions," that these costs are "highly subjective," are not "cost[s] ... actually incurred or avoided by the utility or customer" and "should be excluded from the justification of SPP programs and projects." Do you find flaws in Witness Kollen's statements?

A. Yes, I believe that Witness Kollen's statements on societal benefits and their inclusion in the benefits/cost analysis are misguided. Dismissing the societal benefits misses the overall purpose of the SPP which is to protect and strengthen the grid to reduce the impact from extreme weather events so the State of Florida can return to normal business as quickly as possible. Medical facilities functioning to full capacity; roadways opened; students back in school; businesses employing workers and serving customers; citizens being able to stock their refrigerators, wash clothes and take hot showers; and tourists returning to the State's amazing destinations. All of these societal norms have value to the customers that OPC represents beyond the reduced restoration costs, even if they are not directly realized by the utility or customer.

Personally, I have felt the "cost" of being without electricity for multiple days following an extreme weather event, costs such as bringing ice home every night so my wife, who was eight months pregnant at the time, could keep my one-year old's milk cold. I am also certain that my wife and son paid a cost of sitting in the heat and would have benefitted from having power at the house for those days.

Another example that shows the true value of having electric service to customers is, after Hurricane Irma, a customer was in such need for service that they called in a bomb threat against the facility where I was working. Obviously, this is extremely out of line, but it reinforces how customers are dependent on electricity to power their lives and benefit from having service. Not attributing a value to that benefit is shortsighted and ignores the reality faced by customers.

That said, DEF took a conservative approach in quantifying these benefits through use of the Interruption Cost Estimator ("ICE") model. The ICE model was developed by Lawrence Berkeley National Laboratory ("LBNL") and Nexant, Inc. This tool is designed for electric reliability planners at utilities, government organizations, and other entities that are interested in estimating interruption costs and/or the benefits associated with reliability improvements in the United States. The ICE Calculator is funded by the Energy Resilience Division of the U.S. Department of Energy's Office of Electricity. This non-electric benefit model has been used throughout the industry and in regulatory proceedings.

Q. Witness Mara utilizes ten years of benefits when calculating a benefit to cost ratio for the Lateral Hardening program. Is this a proper methodology for comparing programs' benefits and costs?

A. No, this is not a proper methodology for comparing programs' benefits and costs because electric utility asset investments are not intended to only last ten years, so assuming only ten years' worth of benefits compared to the costs of the programs would be understating the value of the investments. DEF's methodology properly considered the benefits programs will deliver over the life of the assets, as outlined in Exhibit BML-2, by assessing costs and benefits over a 30-year period for distribution programs and a 40-year period for transmission programs.

Q. In Witness Mara's testimony, he states "rate payers are paying more for the SPP and 'reduced' storm costs than they would if the electric utilities did no storm hardening." Do you agree with the statement?

A. No, I do not agree with Witness Mara's statement. First, to the extent Witness Mara is either arguing against the legislature's decision to create the SPP in the first place or implying that DEF should not follow the legislature's and Commission's direction to further harden the system, DEF disagrees. Second, and this is indicative of OPC's witnesses' lack of consistent comparisons, he is comparing ten years of future investment spend to only five years of historical restoration costs, when, as described above, DEF is making these investments expecting 30 to 40 years of benefits. Additionally, DEF utilized FEMA's HAZUS study which includes approximately 200 years of hurricane data, as described in Exhibit BML-2, providing a much more robust calculation of probabilistic extreme weather events and their associated restoration costs over the 30-40 year life of the hardened asset. Third, Witness Mara is only focusing on DEF's direct restoration costs savings and leaves out the true total cost of a storm to the customers as I described above.

IV. QUALIFICATION FOR INCLUSION IN THE STORM PROTECTION PLAN

Q. On June 27, 2022, OPC filed a motion to accept amended testimony along with amendments to both Witnesses' pre-filed direct testimonies. Have you reviewed the amended testimonies, and if so, what impacts do the amendments have on your rebuttal testimony?

A. Yes, I have reviewed the proposed amended testimonies. As I understand the proposed amendments, the witnesses are acknowledging that DEF's 2021 Settlement Agreement includes a provision that the costs incurred with DEF's SPP are properly recovered through the SPPCRC and have been removed from base rates as required by the SPP Statute and Rule. As such, I understand that the witnesses are no longer advocating for exclusion of any Programs from the Plan (at least for cost recovery years 2023-2024). I agree with this result, but would argue further that Programs appropriate for inclusion in the Plan (and recovered through the SPPCRC) for two years of the planning period are likewise appropriate for the Plan (and SPPCRC recovery) for the third year as well.

Because the amended testimonies continue to include the incorrect premises and assumptions, mischaracterizations and misunderstandings, and unreasonably constricted interpretation of the governing statute and rule, I continue to believe it is appropriate to address those issues for the Commission notwithstanding that the witnesses are no longer advoacating for exclusion of certain programs.

Q. In Witness Mara's testimony, he opines that not all of DEF's SPP programs qualify for the Plan and therefore should be excluded from the Plan by the Commission. Do you agree with Witness Mara's opinion?

A. No, I do not agree with Witness Mara's opinion as I believe all of DEF's SPP Programs qualify for inclusion per the statute and rule and should be approved by the FPSC. I also note that they are the same Programs included in DEF's current SPP 2020 approved by the Commission in 2020. The programs submitted are projected to reduce restoration costs and/or reduce outage durations during extreme weather events, while improving overall reliability, and therefore the Plan as a whole will meet the objectives of the statute and rule. I will address why I disagree with Witness Mara's opinion and inaccuracies in the testimony for the Distribution programs Feeder Hardening, Lateral Hardening, Self-Optimizing Grid, and Underground Flood Mitigation. Witness Howe will address DEF's disagreements with Mr. Mara's incorrect assertions and conclusions regarding DEF's Transmission programs and subprograms.

Q. Witness Mara recommends that the Feeder Hardening and Lateral Hardening programs be capped at $1.5B and $2.2B, respectively, to align with DEF's SPP 2020-2029 instead of the "substantial increase in capital expenditures proposed by DEF." Did DEF propose a "substantial increase" over its SPP 2020-2029?

A. No, DEF has not proposed a "substantial increase" when compared to its SPP 2020. The original SPP included transitional years 2020 and 2021 as the Company worked to complete other projects and ramp up engineering and construction resources to prepare for the SPP. As shown in Docket No. 20200069, Exhibit JWO-2, DEF had zero work planned under SPPCRC in 2020 and only had Feeder Hardening and Structure Hardening for 2021. DEF's proposed SPP 2023 reaches a steady state and the last three years of this Plan replace the first three years of SPP 2020, making it appear to be an increase when it is truly a continuation of the plan that was previously approved in Docket No. 20200069. Mr. Menendez provides additional detail on this point in his rebuttal testimony.

Q. Do you agree with Witness Mara's assertion that the cost for corrective actions to address clearance encroachments should not be included in the Storm Protection Plan?

A. No, I do not aggree with Witness Mara's assertion on page 18 of his testimony. Given that new pole locations, sizes and guying will be required when designing a hardened system, DEF will indeed find situations where proper clearances cannot be met with existing overhead structures along and in the public right of way. DEF also must maintain clearance to other existing public and privately owned underground facilities which can further reduce potential pole and guying locations. DEF maintains that newly installed facilities should remain open to truck access for maintenance purposes and should be in easements or adjacent to roadways as outlined in Rule 25-6.0341 (Location of the Utility's Electric Distribution Facilities). DEF is not in agreement with any portion of Witness Mara's conclusion relative to clearance encroachments as outlined on pages 17 and 18 as it does not consider these issues, even though they were discussed in Exhibit BML-1 on pages 7 and 17.

Q. The Self-Optimizing Grid program was addressed by Witness Mara as a program that should not qualify for the Storm Protection Plan as it does not reduce the number of outages. Do you agree with Witness Mara's assessment?

A. No, I do not agree with this assessment because the Self Optimizing Grid program does reduce the number of outages. The design and function of the Self Optimizing Grid, as described in Exhibit BML-1, is to sectionalize the grid into sections that serve smaller number of customers and creates ties between circuits to allow the transferring of customers when a fault occurs during an extreme weather event. On a typical circuit, this will reduce the number of outages caused by a fault during extreme weather by approximately 75%.

Q. But Witness Mara states that the Self Optimizing Grid "system is not effective during an extreme weather event" because it is "doubtful that adjacent feeders will be available because the adjacent feeders will likely have suffered an outage as well" and that "DEF has not provided any evidence the system will be a benefit during extreme weather events." Do you agree with Witness Mara's opinion?

A. No, I do not agree with Witness Mara's conclusion, nor do I agree with his highly speculative premise regarding the availability of neighboring feeders, which is based on a very specific instance of hypothetical damage that is then over-generalized for purposes of reaching a predetermined conclusion. Although I concede that if a Category 5 hurricane were to cause severe damage to a concentrated area similar to what occurred with Hurricane Michael, the adjacent feeder is "likely [to] have suffered an outage," I would state that DEF, as I described in my summary, is deploying Self Optimizing Grid to reduce outages during all levels of extreme weather events, including, but not limited to, Tropical Depressions; Tropical Storms; Hurricanes; tornadoes; coastal and inland flooding; and lightning storms. During these types of events, it is very likely that adjacent feeders will be available for customer transfers, thus reducing the number and duration of outages. Additionally, DEF's Feeder Hardening program is designed to strengthen the feeders to increase the likelihood that adjacent circuits are available, which underscores the inter-related nature of the SPP.

In fact, had OPC requested the information prior to filing its testimony, DEF could have shared that the Self Optimizing Grid system has proven to be very effective during extreme weather events. As shown in Exhibit BML-4, since the inception of the Self Optimizing Grid, and its predecessor Self-Healing Teams, over 25% of the total customer minutes of interruption saved by the systems have been during extreme weather events.

Q. If the Self Optimizing Grid program was disallowed as Witness Mara recommends, would there be negative impacts to DEF's overall Storm Protection Plan?

A. Yes, there would be negative impacts. DEF's Storm Protection Plan is the sum of its parts with the programs working together to reduce restoration costs and outage times associated with extreme weather events. As I stated above, during an extreme weather event, the Feeder Hardening and Self Optimizing Grid programs work in tandem to reduce outages by allowing customers to be served via multiple, hardened circuits.

Q. Witness Mara states that DEF's Underground Flood Mitigation program should be eliminated because it is obvious to him that it is being used to fund the replacement of aging equipment. Do you agree with Witness Mara's assessment?

A. No, I do not agree with Witness Mara's assessment because it is, once again, built upon a false premise. Witness Mara's conclusion is apparently based on the assumption that the replacement of 7 switchgear and 24 transformers in 2021 were passed through the Storm Protection Plan Cost Recovery Clause ("SPPCRC"). This is incorrect; these replacements were included in base rates as Witness Mara said should have been the case. In DEF's SPP 2020 and in subsequent SPPCRC filings, it was shown that the Underground Flood Mitigation program was not going to begin as a part of SPPCRC until 2022. This demonstrates the conflation of the SPP and recovery of costs through the SPPCRC more thoroughly discussed by Mr. Menendez.

Q. Could aging equipment be replaced in the Underground Flood Mitigation program?

A. The focus of the program, as described in Exhibit BML-1, is to harden existing underground distribution facilities in locations that are prone to storm surge during extreme weather events. Although the program could include aging equipment being replaced, that is not the driving factor for target selection.

Q. Witness Mara notes that the Floramar project planned for 2023 is likely to have livefront transformers. Is this accurate?

A. No, it is not accurate. Mr. Mara opined that it was likely to have livefront transformers (plural). Yet, of the 110 transformers in the Floramar area targeted for Underground Flood Mitigation, DEF's records show that only one (1) transformer (singular) is an existing livefront. 1 out of 110. This reinforces that DEF is not selecting targets to address aging units, but instead is focusing on areas that are prone to storm surge during extreme weather events.

Q. Witness Mara states that "hardening means to design and build components to a strength that would not normally be required" and that "aging infrastructure" should not be replaced in the Storm Protection Plan. Do you agree with Witness Mara's statement?

A. No, I do not agree with Witness Mara's statement. As Witness Howe describes in detail in her testimony, replacing "aging infrastructure" hardens the system. With my disagreement with Witness Mara's recommendation that the Underground Flood Mitigation program should be eliminated from SPP (page 26 lines 8 through 10), I will note that DEF plans to replace existing conventional switchgear, what would normally be required, with submersible switchgear designed to withstand the potential storm surge and flood waters thus meeting Witness Mara's proposed requirements.

Q. But Witness Mara believes that DEF is not using submersible switchgear within the Underground Flood Mitigation program. Is he correct?

A. No, Witness Mara is not correct. He is misinterpreting information DEF provided in response to OPC's Request for Production of Documents ("POD") 21 and omitting information provided in response to OPC's POD 15. POD 21, as shown in the table on page 26 of Witness Mara's testimony, provides the names of base rate projects; Witness Mara misinterprets the types of existing switchgear as the type that would be installed upon replacement. As provided in response to POD 15, DEF's Distribution Standard Manual states that "Flooding and Storm Surge Requirements" are the use of "Submersible Switchgear."

V. STAGING COSTS

Q. Witness Mara states that if DEF's system is hardened, it "should logically spend less on pre-staging and would be expected to limit the amount of staging they do ahead of a storm." Can you please explain why Mara's statement is counter to the intent of the Storm Protection Plan statute and rule?

A. Yes. The statute and rule are focused on enhancing the utility's existing infrastructure for the purposes of reducing restoration costs and reducing outage times. The SPP rule does not require the utility to provide details on its restoration processes. DEF scales its restoration efforts to meet the magnitude of the expected extreme weather event, pre-staging included.

Pre-staging resources is a critical step in the restoration planning process as it ensures that the necessary personnel are in place and ready to perform necessary activities to reduce outage times and return the State of Florida to normal operations. When the SPP hardening efforts are completed, the overall restoration efforts will be reduced but DEF will still pre-stage resources as necessary to respond to the anticipated scope of the impending event to ensure customers impacted by extreme weather events are restored as safely and swiftly as possible.

VI. CONCLUSION

Q. Mr. Lloyd, your rebuttal covers a lot of ground, but did you respond to every contention regarding the Company's proposed plan in your rebuttal?

A. No. Intervenor testimony on the SPP involved many pages of testimony and I could not reasonably respond to every single statement or assertion and, therefore, I focused on the issues that I thought were most important in my rebuttal testimony. As a result, my silence on any particular assertion in the intervenor testimony should not be read as agreement with or consent to that assertion.

Q. Does this conclude your testimony?

A. Yes.

CHAIRMAN FAY: Mr. Rehwinkel, I do believe you have a question on this, correct?

MR. REHWINKEL: I do have one.

CHAIRMAN FAY: Okay. You're recognized.

MR. REHWINKEL: First of all, another housekeeping measure, Mr. Chairman. The document that I have shows -- it just shows it stricken, like redacted. Have I printed out something the wrong way? Is what's in the record struck instead of redacted?

MR. BERNIER: There is one file that was just struck through.

MR. REHWINKEL: Okay. So I can ask him -- because the pagination is fine, unlike Ms. Howe. So I can ask him my question from the filed version, as everything lines up, but I just wanted to make sure that what's inserted show as struck through and not redacted.

CHAIRMAN FAY: Yes. Correct. And I have a struck-through version, but to Mr. Bernier's point, I think the errata -- depending on the filing you have in front of it, it's either blacked out or stricken out, but since it's only one question, I think -- or one area that's stricken, one question that's stricken, I think you'll probably know exactly where that is.

MR. REHWINKEL: Thank you.

EXAMINATION

BY MR. REHWINKEL:

Q So if I could turn you to page seven, lines 20 through 22 of your rebuttal testimony in the proffered section. Are you there?

A Yes, sir.

Q Okay. So you state the rule does not require projects to meet a specific threshold, but rather requires a comparison of the description of projected program benefits to costs, is that right?

A Yes, sir, that's what my testimony is.

Q There your use of the term, benefits, and the company's analyses interpret that comparison to mean a comparison of dollar or monetized benefits to dollar cost. Is that right?

A Yes, sir.

MR. REHWINKEL: Mr. Chairman, those are all the questions I'll have. And thank you, Mr. Lloyd.

CHAIRMAN FAY: Okay. Great. Any from FIPUG, Nucor or --

MR. MATTHEIS: No questions.

CHAIRMAN FAY: Okay. With that, did we enter in Exhibit 53?

MR. BERNIER: No, sir. I've got to do it. So thank you. I'd like to enter Exhibit 53 into the record.

CHAIRMAN FAY: Okay. Show that entered.

(Whereupon, Exhibit No. 53 was received into evidence.)

MR. BERNIER: Thank you.

MR. REHWINKEL: Mr. Chairman, I think this is the time, even though I did not ask any additional questions, but that I would like to move exhibit -- Hearing exhibit 103 into the record.

MR. BERNIER: No objection.

MR. REHWINKEL: This was interrogatory 85.

CHAIRMAN FAY: Okay. So 103. Without objection.

(Whereupon, Exhibit No. 103 was received into evidence.)

CHAIRMAN FAY: Anything else, Mr. Rehwinkel? Okay. With that, Mr. Bernier.

MR. BERNIER: Just ask that Mr. Lloyd be excused.

CHAIRMAN FAY: Mr. Lloyd, you're excused.

THE WITNESS: Thank you, Chairman. Thank you, Commissioners.

(Witness excused.)

MR. BERNIER: We would call Christopher Menendez.

CHAIRMAN FAY: If you're ready here.

Whereupon,

CHRISTOPHER MENENDEZ

was recalled as a witness, having been previously duly sworn to speak the truth, the whole truth, and nothing but the truth, was examined and testified as follows:

EXAMINATION

BY MR. BERNIER:

Q Good afternoon, Mr. Menendez.

A Good afternoon.

Q You were sworn the other day and understand that you're still under oath, correct?

A I do.

Q Thank you. In response to the Commission's order striking portions of Mr. Kollen's testimony, did you cause to be filed amended rebuttal testimony on August 1st, 2021 -- or 2022?

A I did.

Q Thank you. And you don't have any exhibits to your testimony, is that correct?

A I do not.

Q Do have a copy of that testimony with you today?

A I do.

Q Other than the amendments that we just discussed, do you have any changes to make to that testimony?

A No.

Q If I were to ask you the same questions today, would your answer still be the same?

A Yes.

Q Thank you?

MR. BERNIER: Mr. Chairman, we'd ask that Mr. Menendez's amended rebuttal testimony dated August 1 be entered into the record as though read.

CHAIRMAN FAY: Show it entered.

(Whereupon, prefiled rebuttal testimony of Christopher Menendez was inserted.)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
REVIEW OF STORM PROTECTION PLAN, PURSUANT TO RULE 25-6.030, F.A.C., DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20220050-EI

REBUTTAL TESTIMONY OF CHRISTOPHER A. MENENDEZ

ON BEHALF OF DUKE ENERGY FLORIDA, LLC

JUNE 30, 2022

I. INTRODUCTION AND QUALIFICATIONS.

Q. Please state your name and business address.

A. My name is Christopher A. Menendez. My business address is Duke Energy Florida, LLC, 299 1st Avenue North, St. Petersburg, Florida 33701.

Q. Have you previously filed direct testimony in this docket?

A. Yes, I filed direct testimony supporting the Company's Storm Protection Plan ("SPP" or "DEF 2023 SPP") on April 11, 2022.

Q. Has your employment status and job responsibilities remained the same since discussed in your previous testimony?

A. Yes.

II. PURPOSE AND SUMMARY OF TESTIMONY.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my testimony is to provide the Company's rebuttal to certain assertions and conclusions contained in the direct testimonies of OPC's witnesses Kollen and Mara. Mr. Lloyd and Ms. Howe will present additional rebuttal of the testimonies of OPC's witnesses Kollen and Mara.

Q. Do you have any exhibits to your testimony?

A. No.

Q. Please summarize your testimony.

A. My testimony addresses certain assertions and conclusions contained in OPC Witness Mara's and Witness Kollen's testimonies. I have not attempted to rebut each and every factual error or misconception contained in these testimonies.

With regard to Witness Mara's testimony, I generally focus on the capital investment level for the 10-year plan (2023-2032). With regard to Witness Kollen's testimony, I generally focus on five topics:

- Clarification on how DEF implemented Paragraph 4 of DEF's 2021 Settlement Agreement in Docket No. 20210016-EI[1] into DEF's 2023 SPP filing;
- Clarification on DEF's 2020 Settlement Agreement,[2] where the Signatories agreed that the record supports a finding that DEF's SPP programs are in the public interest, and that DEF proceeding to implement these SPP programs is not evidence of imprudence and how that Agreement impacts DEF's 2023 SPP filing;

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[1] Approved by Final Order No. PSC-2021-0202-AS-EI.

[2] Approved by Order No. PSC-2020-0293-AS-EI.

- Address Witness Kollen's misinterpretations of Section 366.96, Florida Statutes, SPP Rule 25-6.030, and the Storm Protection Plan Cost Recovery Clause ("SPPCRC") Rule 25-6.031;
- Address Witness Kollen's incorrect concerns regarding DEF's calculations of the estimated revenue requirements; and
- Address Witness Kollen's concern that ratepayers will not receive the benefits of future reduced costs in base rates that result from SPP implementation.

III. WITNESS MARA

Q. Do you agree with the assertion that, "All of the utilities' SPPs are based on the premise that by investing in storm hardening activities the electric utility infrastructure will be more resilient to the effects of extreme weather events. This resiliency means lower costs for restoration from the storms and reduced outage times experienced by the customers. Some programs have a greater impact on reducing outages times and lowering restoration costs than other programs. Clearly, the goal is to invest in storm hardening activities that benefit the customers of the electric utilities at a cost that is reasonable relative to those benefits."

A. Yes, DEF agrees with Mr. Mara's premise and while I cannot speak for the other companies' filings, DEF's 2023 SPP filing was predicated on these very ideas, which are irrefutable. To that end, DEF agrees with Mr. Mara's assertion.

Q. Witness Mara asserts DEF's proposed SPP includes a substantial increase in capital expenditures when compared to DEF's SPP 2020-2029. Do you agree with his conclusion?

A. No. To call the proposed Plan's capital expenditures "a substantial increase" is a gross mischaracterization of the data being compared. Without going line by line through his table and pointing out exceptions by program, I can state in fact, that the investment levels presented over the common years 2023-2029 decreased in total in DEF's 2023 SPP; the years that extend beyond DEF's 2020 SPP (i.e., 2030-2032) are merely an extension of the 2029 investment levels. The "significant increase" Mr. Mara identified is simply a result of comparing the first three years of DEF's original SPP, where the SPP programs were either in the planning stage or the infancy of implementation, with three years of investments in programs that are fully up and running, delivering value to our customers.

Recalling Mr. Oliver's testimony in Docket No. 20200069-EI:

> The current Storm Hardening Plan (and its previous iterations) provided the foundation upon which the SPP builds. Indeed, because Year 1 of the SPP is 2020, the activities included in the Storm Hardening Plan for 2020 are already planned and in flight, DEF was unable to pivot and change course on those projects for 2020. Accordingly, DEF has summarized the activities in the Storm Hardening Plan that will carry over as projects for year 1 of the SPP, as required by the SPP Rule. Starting in year 2021 (or year 2 of the SPP), DEF will begin a transition to a more holistic system vision for hardening against extreme weather events and enhancing reliability.[3]

It was not until year 3 (2022) of the 2020 SPP that DEF began fully funding the original SPP. Of course, when Mr. Mara compares 8 years of full program funding to 10 years of full program funding as presented in this docket, there will be a variance, but to characterize it as a "significant increase" is simply incorrect.

IV. WITNESS KOLLEN

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[3] Oliver Testimony, p. 5, ll. 5-17 (doc. No. 01943-2020, Docket No. 20200069-EI).

[redacted]

[redacted]

Q. With the understanding that you disagree that programs recovered through base rates are ineligible for inclusion in the Plan, what evidence do you have that shows DEF's compliance with the requirement that Storm Protection Plan costs are not recovered through both base rates and the SPPCRC?

A. In Paragraph 4 of DEF's 2021 Settlement Agreement,[4] the Parties (including OPC) agreed that DEF has properly removed all costs associated with the Storm Protection Plan from the costs included in DEF's MFRs as all such costs spent on approved SPP programs are properly recoverable through the SPP Cost Recovery Clause. This clearly shows that DEF removed all SPP costs from base rates for the settlement period, 2022-2024. Further, Mr.

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[4] *See* Docket No. 20210016-EI (approved by Final Order PSC-2021-0202-AS-EI).

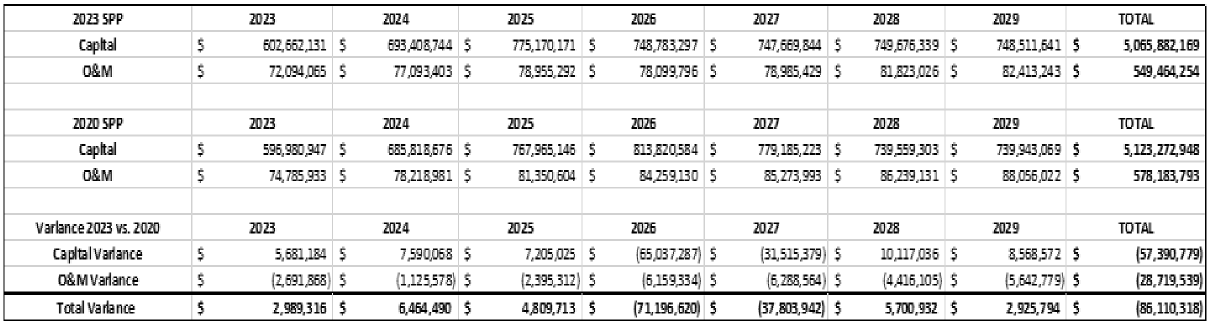
Kollen and OPC are once again conflating the SPP docket and the SPPCRC docket. The SPPCRC docket is the appropriate place to ensure no costs are being recovered through both base rates and SPPCRC; however, as is clear from DEF's 2021 Settlement Agreement, both OPC and DEF agree this is properly reflected in DEF's filings.

Q. As part of DEF's updated SPP filing for the period 2023-2032 ("SPP 2023"), did DEF include any new programs beyond those approved in DEF's originally approved SPP ("SPP 2020")?

A. No. DEF's SPP 2023 contains no new programs from those previously approved for inclusion in DEF's SPP 2020.[5]

Q. As part of DEF's SPP 2023, did DEF materially expand the scope of the programs and associated expenditures it seeks to recover for the years 2020-2022 beyond those that are included in the estimates shown on page 40 of Exhibit JWO-2, filed on April 10, 2020, updated on June 24, 2020?

A. No. DEF held to the terms of the 2020 Settlement Agreement. In fact, the investment levels presented over the common years 2023-2029 decreased in total over this time period.



2023 SPP	2023	2024	2025	2026	2027	2028	2029	TOTAL
Capital	$ 602,662,131	$ 693,408,744	$ 775,170,171	$ 748,783,297	$ 747,669,844	$ 749,676,339	$ 748,511,641	$ 5,065,882,169
O&M	$ 72,094,065	$ 77,093,403	$ 78,955,292	$ 78,099,796	$ 78,985,429	$ 81,823,026	$ 82,413,243	$ 549,464,254
2020 SPP	2023	2024	2025	2026	2027	2028	2029	TOTAL
Capital	$ 596,980,947	$ 685,818,676	$ 767,965,146	$ 813,820,584	$ 779,185,223	$ 739,559,303	$ 739,943,069	$ 5,123,272,948
O&M	$ 74,785,933	$ 78,218,981	$ 81,350,604	$ 84,259,130	$ 85,273,993	$ 86,239,131	$ 88,056,022	$ 578,183,793
Variance 2023 vs. 2020	2023	2024	2025	2026	2027	2028	2029	TOTAL
Capital Variance	$ 5,681,184	$ 7,590,068	$ 7,205,025	$ (65,037,287)	$ (31,515,379)	$ 10,117,036	$ 8,568,572	$ (57,390,779)
O&M Variance	$ (2,691,868)	$ (1,125,578)	$ (2,395,312)	$ (6,159,334)	$ (6,288,564)	$ (4,416,105)	$ (5,642,779)	$ (28,719,539)
Total Variance	$ 2,989,316	$ 6,464,490	$ 4,809,713	$ (71,196,620)	$ (37,803,942)	$ 5,700,932	$ 2,925,794	$ (86,110,318)

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[5] Approved by Order PSC-2020-0293-AS-EI, issued on August 28, 2020.

[redacted] [redacted]

[redacted] [redacted] DEF's 2021 Settlement Agreement and OPC's Motion to amend Messrs. Mara and Kollen's testimony makes clear, the recovery of these costs in the current SPPCRC is also appropriate. Further, DEF's SPP 2023 only contains programs that were carried over from its SPP 2020. Per the terms of the 2021 Settlement Agreement, any argument to the contrary has been rendered moot, as recognized by the amended testimonies.

[redacted] [redacted]

[redacted] [redacted]

Q. [redacted]

[redacted] [redacted]

[redacted]

[redacted]

[redacted] [redacted] [redacted]

[redacted]

> [redacted]

[redacted] ~~may be included as a portion of rate base. Where the latter treatment is~~ [redacted]

[redacted]

[redacted]

[redacted]

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[7] Approved in Order No. PSC-2020-0410-AS-EI (Docket No. 20200092-EI, issued Oct. 27, 2020).

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

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[8] *See* Docket No. 20190131-EU, Issue 1 (filed Sept. 20, 2019).

[redacted]

Q. Mr. Kollen asserts that DEF's calculations of the estimated revenue requirements had errors that needed to be corrected. Do you agree with that allegation?

A. No. DEF fully complied with Rule 25-6.030(3)(g)'s requirement that it provide "An estimate of the annual jurisdictional revenue requirements for each year of the Storm Protection Plan." It is important to recognize these estimates are not used to set rates or clause factors; these are calculations to provide reasonable estimates for the capital, O&M, and revenue requirements of the SPP for planning purposes. The actual clause factors will be determined in the SPPCRC. DEF properly included the appropriate elements for ratemaking in its calculations: CWIP; Depreciation; and Property Tax.

Witness Kollen claims that DEF improperly calculated depreciation expense on CWIP at the end of the prior year, but also failed to calculate depreciation expense on current year plant additions. Mr. Kollen's statements are incorrect as explained in DEF's response to OPC Interrogatory No. 58:

> Consistent with the revenue requirement calculation in DEF's SPP 2020, DEF's CWIP balance is incorporated into the 'Investment' line for each SPP program. DEF has accounted for CWIP within the depreciation expense calculation. Within the current year, a portion of each program is assumed to be placed in-service. Therefore, the amount of investment not yet placed in-service is representative of the CWIP balance.

For programs that assumed that CWIP was placed in service throughout the current year (e.g., Transmission Structure Hardening), DEF did calculate depreciation expense on current year plant additions. DEF also has programs that incur investment on individual projects throughout the year but are placed in-service when all work within a target location is complete; for financial modeling purposes, DEF assumed an end of year in-service for these programs.

Regarding Mr. Kollen's statements on the calculation of property tax expense, the expenses included in DEF's SPP 2023 are simply estimates for the 10-year period developed to provide the estimate of the annual jurisdictional revenue requirements as required by Rule 25-6.030(3)(g). DEF uses reasonable methods to estimate the property tax expense for the SPP programs over the planning timeframe, but ultimately property tax expenses collected from customers are based on the projections filed in the SPPCRC filings, not DEF's 2023

SPP, and those projected amounts are subject to true-up based on the actual property taxes incurred. Therefore, a revision to the calculation of estimated property tax expense in DEF's SPP 2023 filing is unnecessary. Further, the Commission should not establish a property tax expense calculation, as contemplated by Mr. Kollen, that would override the true-up based on actual expenses as that would defeat the purpose of the true-up to actual expenses in the SPPCRC and would create a departure in the true-up of property tax expense in the SPPCRC compared to other clauses such as ECRC and ECCR. Finally, the Commission, Commission Staff and intervenor parties have the right to review the actual property tax expenses submitted in the SPPCRC filings.

DEF believes the figures presented on page 56 of 56 in Exhibit No.__(BML-1) appropriately represent the estimated annual jurisdictional revenue requirements for each year of the SPP. Actual cost recovery will occur through the annual SPPCRC process.

Q. Mr. Kollen contends that the utilities will retain the avoided cost savings for costs presently recovered in base rates unless these costs are addressed in this proceeding and the SPPCRC proceedings or otherwise included in a negotiated resolution. Do you agree?

A. No. It is not true now, just as it was not true when then OPC Witness Schultz made a similar statement in Docket No. 20200069-EI, "that there is a risk that ratepayers will be paying for improvements that will reduce the Company's costs in base rates, but those savings will not be passed through to the ratepayers." In rebuttal, DEF Witness Foster stated:

> The SPP statute addresses new investments to strengthen the electric utility infrastructure to withstand extreme weather conditions and improve overall service reliability. It creates a cost recovery clause for investments to accomplish this goal. It also ensures there is no double recovery for these

> costs by stating in paragraph (8) that "storm protection plan costs may not include costs recovered through the public utility's base rates." This clearly addresses the double recovery concern. Rule 25-6.031(6)(b) implements this statutory directive by stating "Storm Protection Plan costs recoverable through the clause shall not include costs recovered through the utility's base rates or any other cost recovery mechanism."
>
> It is the normal process for base rate costs to change over time and this creates regulatory lag. Some costs will decrease, others will increase. The SPP Statute was not developed to address appropriate levels of costs in base rates, it was developed to facilitate investment in work that will strengthen the transmission and distribution systems from extreme weather to help reduce restoration times and costs. There is in fact already a way that the Commission monitors Florida utilities to ensure no excessive recovery is occurring. The Commission requires monthly Earnings Surveillance reports. These reports show the earned return on equity (ROE). In a rate case, the FPSC authorizes an allowed ROE for utilities. If a utility reports a ROE that is too high, the parties or the Commission itself may call the Utility in for a rate case. Unlike cost recovery clauses, the normal and established process for base rates involves regulatory lag.

Mr. Foster's remarks still hold true and I would reiterate them in response to Mr. Kollen's contention.

DEF addressed compliance on this issue in the response to OPC's Interrogatory 59. In that response, DEF explained that these adjustments are included in the SPPCRC filings.

> "Consistent with the model that was developed by DEF for its April 10, 2020, SPP filing, DEF did not include any assumptions for reductions assumed in the calculation of depreciation expense associated with retirements for plant that was previously recovered in base rates. In DEF's annual SPPCRC filings, DEF includes credits associated with the depreciation expense for base rate assets retired as part of an SPP program. When the value of the base asset is removed from EPIS during a subsequent rate case, the depreciation expense credit included in the SPPCRC filings associated with these assets should simultaneously cease. DEF does not make assumptions for timing and outcomes of rate cases that would be necessary to accurately reflect a reasonable amount of credit within the SPP Revenue Requirement model. DEF believes that this is the appropriate approach since the credits are included in the SPPCRC filings which are used to set customer rates and are subject to true-up.

Again, the purpose of the SPP is not to prepare the precise calculations for clause factor development; that process takes place in the SPPCRC. As DEF notes in its response, DEF has included these credits in the SPPCRC filings in Docket 20220010-EI.

V. CONCLUSION

Q. Mr. Menendez, your rebuttal covers a lot of ground, but did you respond to every contention regarding the Company's proposed plan in your rebuttal?

A. No. Intervenor testimony on the SPP involved many pages of testimony and I could not reasonably respond to every single statement or assertion and, therefore, I focused on the issues that I thought were most important. As a result, my silence on any particular assertion in the intervenor testimony should not be read as agreement with or consent to that assertion.

I specifically did not challenge many of Mr. Kollen's suggestions or recommendations he makes related to changing methodologies for calculating revenue requirements and rate calculations in the SPPCRC proceeding, again not because I agree with them, but rather I believe he is treading on Rulemaking grounds which is not appropriate for consideration or argument at this time.

Q. Does this conclude your testimony?

A. Yes.

MR. BERNIER: Thank you. We will waive summary and tender the witness.

CHAIRMAN FAY: Great. Mr. Rehwinkel, you're recognized.

MR. REHWINKEL: Thank you, Mr. Chairman.

EXAMINATION

BY MR. REHWINKEL:

Q And good afternoon. I want to call you Chris, but I better say Mr. Menendez.

A Good afternoon, sir.

Q Please turn to page three of your rebuttal testimony at line 22.

A Sorry. Can you give me the reference again, sir?

Q Yes. Page three, line 22.

A Thank you. I'm there.

Q So that's the question that leads to your answer on the next page, on page four. Would you agree that in this portion of your testimony that Mr. Mara's testimony that the updated plan represents a substantial increase in capital expenditures is incorrect?

A Can you repeat your question, Mr. Rehwinkel?

Q Yes. This testimony starting on page three, really line 22 through the answer that begins on page four, line one, expresses your disagreement with Mr.

Mara that the updated SPP 2023 represents a substantial increase in capital expenditures; is that right?

A I do disagree with that conclusion, yes.

Q To your right there's an exhibit, and I think the title page says Duke February 11 earnings call transcript. Do you see that?

A I have it.

MR. REHWINKEL: Mr. Chairman, I'd like to identify this as an exhibit. Are we at 108?

CHAIRMAN FAY: We're at 109.

MR. REHWINKEL: 109 -- well, let me confirm with legal. Mr. Rehwinkel --

MR. TRIERWEILER: We're at 110. 109 was not entered into evidence.

CHAIRMAN FAY: So we were both wrong. All right. 110. Mr. Rehwinkel, when was this distributed? Which exhibit is this?

MR. REHWINKEL: Yesterday.

CHAIRMAN FAY: What's the title?

MR. REHWINKEL: It says Duke February 11, 2021, earnings call transcript.

CHAIRMAN FAY: Do the utilities have a copy of that?

MR. BERNIER: I believe so.

MS. HELTON: I have a stack, Mr. Chairman, it's the third in the stack that starts with a July 27, 2022 estimated actual filing.

MR. REHWINKEL: So this will be 110?

CHAIRMAN FAY: Yes. 110. Thank you Mr. Rehwinkel.

MR. REHWINKEL: Thank you.

BY MR. REHWINKEL:

Q So, Mr. Menendez, would you open this exhibit? And on page three of the transcript -- well, first of all, let's look at the title page. It says edited transcript Q4 2020 Duke Energy Corporation earnings call, February 11, 2021. Do you see that?

A I do.

Q And I see that I have -- this was copied apparently with the even-numbered pages omitted. Is that what yours shows?

A I also just have the odd pages.

Q Okay.

CHAIRMAN FAY: Is it double-sided?

THE WITNESS: No, Mr. Chairman, my copy is not.

MR. BERNIER: Mr. Rehwinkel, it happens to the best of us. Don't worry about it.

CHAIRMAN FAY: We've all been there.

MR. REHWINKEL: Mr. Chairman, I would ask if the company would accept my representation that this is -- this is a document that was retrieved from the company's investor segment of the Duke Energy website, and this is a transcript, and the speaker here is CEO Lynn Good.

CHAIRMAN FAY: Mr. Rehwinkel, I'll check with the utility on it. Do you have a copy that would be available to the witness if you're going to be speaking to specific language?

MR. REHWINKEL: Well, the language I want to ask him about is on -- it's on page three here, it's just that I don't have page two that shows --

CHAIRMAN FAY: In that case, as long as the utility finds it acceptable --

MR. BERNIER: Subject to check, we have no objection.

CHAIRMAN FAY: Okay. Go ahead.

MR. REHWINKEL: Thank you, Mr. Chairman, and thank you, Mr. Bernier, for that courtesy.

BY MR. REHWINKEL:

Q Mr. Menendez, would you accept my representation that this is a transcript of remarks by Duke Energy CEO, Lynn Good?

A Subject to check.

Q Thank you. And could you go to the third

paragraph on the bottom that starts with, beyond the multiyear plan? Do you see that?

A   I do.

Q   Would you read that one sentence into the record?

A   Beyond the multiyear rate plan, we also received approval for -- approval of the first three years of our storm protection plans, representing a $6 billion investment in grid hardening projects over the next 10 years.

Q   And would you agree with me that that $6 billion is the prior SPP's corresponding CapEx spend that relates to the $7.3 billion that's in your current -- or SPP 2023?

A   I don't believe I have a copy of the 2020 with me, but subject to check.

Q   Okay. Would you agree that if $6 billion is the correct number from the 2020 SPP and 7.3 billion is the correct number, and I mean CapEx in both instances, that $7.3 billion is a 21.67 percent increase over 6 billion?

A   Again, haven't done the math on the percentages, but I believe in my testimony, Mr. Rehwinkel, I call this a gross mischaracterization by calling it a substantial increase.

Q Okay. And do you have the confidential -- or you would agree, though, that if the math is that 7.3 is 21.6 percent greater than six, right?

A Subject to check, the number -- one number is greater than the other. However, to call it a substantial increase, as I say in my rebuttal, is a gross mischaracterization in comparing the two plans.

Q Okay.

MR. REHWINKEL: And, Mr. Chairman, I would like to ask folks to turn, including the witness, to turn to exhibit 104, which is the confidential exhibit. And, again, with the -- with the caution that we're talking about confidential information. And my questions to you, Mr. Menendez are not asking you to vocalize any information on here unless your counsel has given you express authority to do so.

THE WITNESS: I understand, sir.

BY MR. REHWINKEL:

Q Okay. So if you could turn to Bates page 16 -- or OPC Bates 16 and DEF Bates 5287.

A I'm there.

Q And I think as we -- just to reiterate from yesterday, that publicly disclosed SPP 2023 CapEx spend is shown in the -- on this document, right, on this

page?

A It is.

Q Would you agree that the base amount shown on this page represents a substantial increase above the number shown below it?

A The numbers in the base case are higher than the numbers below it.

Q Okay. Thank you.

MR. REHWINKEL: Mr. Menendez, thank you for your time. Those are all the questions I'll have on your non-stricken testimony. I have one question on your proffer when we get to that.

THE WITNESS: Thank you.

CHAIRMAN FAY: Nucor.

MR. MATTHEIS: No questions.

CHAIRMAN FAY: Mr. Moyle?

MR. MOYLE: No questions.

CHAIRMAN FAY: Ms. Eaton.

MS. EATON: No questions.

CHAIRMAN FAY: Okay. Staff.

MR. TRIERWEILER: No questions.

CHAIRMAN FAY: Commissioners.

THE WITNESS: Mr. Chairman.

CHAIRMAN FAY: Yes, Mr. Menendez.

THE WITNESS: Yesterday, Commissioner Clark asked me a question and I believe I misunderstood the Commissioner in his question. If you would allow, I would like to clarify for the Commissioner's question, if I may.

CHAIRMAN FAY: Sure. At his discretion if you'd like.

THE WITNESS: Yeah. Commissioner Clark, yesterday you had asked me a comparison in looking at the estimated residential price impacts that we had put into our exhibit compared to the commercial -- the typical commercial and typical industrial percentages. What I wanted to -- as I misunderstood in your question, sir, the residential amounts that we showed on that sheet were the total estimated SPP CRC amounts for a residential customer. They are not the year-over-year change. So as we look to, for example, 2023, the present rate is $3. And moving to 421, the change would only be $1.21. And that's -- when you look at it, you get to a percentage increase that is less than 1 percent and then in line with the CNI percentage that you saw elsewhere. So that's where I was in comparing them in the same. Thank you, Mr. Commissioner.

CHAIRMAN FAY: Thank you. Mr. Bernier, any redirect?

MR. BERNIER: No redirect, Mr. Chairman.

CHAIRMAN FAY: With that, Mr. Bernier, we'll move on to Mr. Menendez's proffered --

MR. REHWINKEL: Do we need to do exhibits on the --

CHAIRMAN FAY: I apologize. We'll enter your 110 --

MR. REHWINKEL: Here's what I would like to ask the Commission's indulgence on. 110, I've asked for us to make a complete copy of that document with all the pages on it. And I will -- what I will do is once that's done, I will distribute it, make sure that counsel for Duke agrees, and then I will, on the record, insert -- or ask you to admit that complete document into the record. So we can hold off on 110, if it's okay, we'll come to a point and we'll put the right document in. Would that work?

CHAIRMAN FAY: Yeah, that's fine. I honestly think with Duke's approval we could enter it now, just knowing that the document will be provided in the record in its completion. You didn't ask any questions from the pages that were --

MR. REHWINKEL: That's correct.

CHAIRMAN FAY: There's no concern about that not being in there. So, with that, we'll enter 110. And just make sure, Mr. Trierweiler or Ms. Helton, are you both comfortable with that?

Okay. All right. With that, then we will enter 110 without objection.

(Whereupon, Exhibit No. 110 was received into evidence.)

CHAIRMAN FAY: Mr. Rehwinkel let's just make sure when we leave today that we got that for the record.

Okay. With that, Mr. Bernier, move on to proffered.

MR. BERNIER: Thank you, Mr. Chairman. DEF would like to proffer for purposes of the record, Mr. Menendez's June 30th rebuttal testimony as filed.

CHAIRMAN FAY: Show that proffered.

(Whereupon, prefiled rebuttal proffered testimony of Christopher Menendez was inserted.)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REVIEW OF STORM PROTECTION PLAN, PURSUANT TO RULE 25-6.030, F.A.C., DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20220050-EI

REBUTTAL TESTIMONY OF CHRISTOPHER A. MENENDEZ

ON BEHALF OF DUKE ENERGY FLORIDA, LLC

JUNE 30, 2022

I. INTRODUCTION AND QUALIFICATIONS.

Q. Please state your name and business address.

A. My name is Christopher A. Menendez. My business address is Duke Energy Florida, LLC, 299 1st Avenue North, St. Petersburg, Florida 33701.

Q. Have you previously filed direct testimony in this docket?

A. Yes, I filed direct testimony supporting the Company's Storm Protection Plan ("SPP" or "DEF 2023 SPP") on April 11, 2022.

Q. Has your employment status and job responsibilities remained the same since discussed in your previous testimony?

A. Yes.

II. PURPOSE AND SUMMARY OF TESTIMONY.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my testimony is to provide the Company's rebuttal to certain assertions and conclusions contained in the direct testimonies of OPC's witnesses Kollen and Mara. Mr. Lloyd and Ms. Howe will present additional rebuttal of the testimonies of OPC's witnesses Kollen and Mara.

Q. Do you have any exhibits to your testimony?

A. No.

Q. Please summarize your testimony.

A. My testimony addresses certain assertions and conclusions contained in OPC Witness Mara's and Witness Kollen's testimonies. I have not attempted to rebut each and every factual error or misconception contained in these testimonies.

With regard to Witness Mara's testimony, I generally focus on the capital investment level for the 10-year plan (2023-2032). With regard to Witness Kollen's testimony, I generally focus on five topics:

- Clarification on how DEF implemented Paragraph 4 of DEF's 2021 Settlement Agreement in Docket No. 20210016-EI[1] into DEF's 2023 SPP filing;
- Clarification on DEF's 2020 Settlement Agreement,[2] where the Signatories agreed that the record supports a finding that DEF's SPP programs are in the public interest, and that DEF proceeding to implement these SPP programs is not evidence of imprudence and how that Agreement impacts DEF's 2023 SPP filing;

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[1] Approved by Final Order No. PSC-2021-0202-AS-EI.

[2] Approved by Order No. PSC-2020-0293-AS-EI.

- Address Witness Kollen's misinterpretations of Section 366.96, Florida Statutes, SPP Rule 25-6.030, and the Storm Protection Plan Cost Recovery Clause ("SPPCRC") Rule 25-6.031;
- Address Witness Kollen's incorrect concerns regarding DEF's calculations of the estimated revenue requirements; and
- Address Witness Kollen's concern that ratepayers will not receive the benefits of future reduced costs in base rates that result from SPP implementation.

III. WITNESS MARA

Q. Do you agree with the assertion that, "All of the utilities' SPPs are based on the premise that by investing in storm hardening activities the electric utility infrastructure will be more resilient to the effects of extreme weather events. This resiliency means lower costs for restoration from the storms and reduced outage times experienced by the customers. Some programs have a greater impact on reducing outages times and lowering restoration costs than other programs. Clearly, the goal is to invest in storm hardening activities that benefit the customers of the electric utilities at a cost that is reasonable relative to those benefits."

A. Yes, DEF agrees with Mr. Mara's premise and while I cannot speak for the other companies' filings, DEF's 2023 SPP filing was predicated on these very ideas, which are irrefutable. To that end, DEF agrees with Mr. Mara's assertion.

Q. Witness Mara asserts DEF's proposed SPP includes a substantial increase in capital expenditures when compared to DEF's SPP 2020-2029. Do you agree with his conclusion?

A. No. To call the proposed Plan's capital expenditures "a substantial increase" is a gross mischaracterization of the data being compared. Without going line by line through his table and pointing out exceptions by program, I can state in fact, that the investment levels presented over the common years 2023-2029 decreased in total in DEF's 2023 SPP; the years that extend beyond DEF's 2020 SPP (i.e., 2030-2032) are merely an extension of the 2029 investment levels. The "significant increase" Mr. Mara identified is simply a result of comparing the first three years of DEF's original SPP, where the SPP programs were either in the planning stage or the infancy of implementation, with three years of investments in programs that are fully up and running, delivering value to our customers. Recalling Mr. Oliver's testimony in Docket No. 20200069-EI:

> The current Storm Hardening Plan (and its previous iterations) provided the foundation upon which the SPP builds. Indeed, because Year 1 of the SPP is 2020, the activities included in the Storm Hardening Plan for 2020 are already planned and in flight, DEF was unable to pivot and change course on those projects for 2020. Accordingly, DEF has summarized the activities in the Storm Hardening Plan that will carry over as projects for year 1 of the SPP, as required by the SPP Rule. Starting in year 2021 (or year 2 of the SPP), DEF will begin a transition to a more holistic system vision for hardening against extreme weather events and enhancing reliability.[3]

It was not until year 3 (2022) of the 2020 SPP that DEF began fully funding the original SPP. Of course, when Mr. Mara compares 8 years of full program funding to 10 years of full program funding as presented in this docket, there will be a variance, but to characterize it as a "significant increase" is simply incorrect.

IV. WITNESS KOLLEN

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[3] Oliver Testimony, p. 5, ll. 5-17 (doc. No. 01943-2020, Docket No. 20200069-EI).

~~**Q. Witness Kollen asserts that, "section 366.96(8), Fla. Stat. limits SPP programs and projects to costs not recovered through the utility's base rates." Do you agree with this assertion?**~~

~~A: No, because section 366.96(8) is referring to cost recovery through the SPPCRC, not the SPP. There is no requirement in this statute to exclude programs with costs recovered through base rates from the SPP. To this point, DEF's 2020-2029 SPP included both programs with costs recovered through base rates and programs with costs recovered through the SPPCRC. This argument underscores Mr. Kollen's and OPC's confusion over the purpose of this proceeding versus the purpose of the SPPCRC. This proceeding is intended to determine the proper scope of the Plan, the SPPCRC is intended to determine the proper amount to be collected through the clause itself and to ensure there is no double-recovery. I discuss this concept in a little more detail below.~~

Q. With the understanding that you disagree that programs recovered through base rates are ineligible for inclusion in the Plan, what evidence do you have that shows DEF's compliance with the requirement that Storm Protection Plan costs are not recovered through both base rates and the SPPCRC?

A. In Paragraph 4 of DEF's 2021 Settlement Agreement,[4] the Parties (including OPC) agreed that DEF has properly removed all costs associated with the Storm Protection Plan from the costs included in DEF's MFRs as all such costs spent on approved SPP programs are properly recoverable through the SPP Cost Recovery Clause. This clearly shows that DEF removed all SPP costs from base rates for the settlement period, 2022-2024. Further, Mr.

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[4] *See* Docket No. 20210016-EI (approved by Final Order PSC-2021-0202-AS-EI).

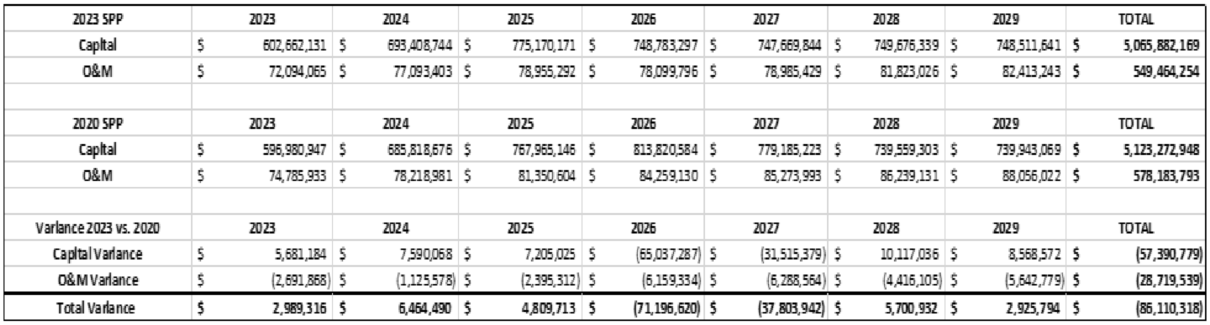
Kollen and OPC are once again conflating the SPP docket and the SPPCRC docket. The SPPCRC docket is the appropriate place to ensure no costs are being recovered through both base rates and SPPCRC; however, as is clear from DEF's 2021 Settlement Agreement, both OPC and DEF agree this is properly reflected in DEF's filings.

Q. As part of DEF's updated SPP filing for the period 2023-2032 ("SPP 2023"), did DEF include any new programs beyond those approved in DEF's originally approved SPP ("SPP 2020")?

A. No. DEF's SPP 2023 contains no new programs from those previously approved for inclusion in DEF's SPP 2020.[5]

Q. As part of DEF's SPP 2023, did DEF materially expand the scope of the programs and associated expenditures it seeks to recover for the years 2020-2022 beyond those that are included in the estimates shown on page 40 of Exhibit JWO-2, filed on April 10, 2020, updated on June 24, 2020?

A. No. DEF held to the terms of the 2020 Settlement Agreement. In fact, the investment levels presented over the common years 2023-2029 decreased in total over this time period.



2023 SPP	2023	2024	2025	2026	2027	2028	2029	TOTAL
Capital	$ 602,662,131	$ 693,408,744	$ 775,170,171	$ 748,783,297	$ 747,669,844	$ 749,676,339	$ 748,511,641	**$ 5,065,882,169**
O&M	$ 72,094,065	$ 77,093,403	$ 78,955,292	$ 78,099,796	$ 78,985,429	$ 81,823,026	$ 82,413,243	**$ 549,464,254**
2020 SPP	2023	2024	2025	2026	2027	2028	2029	TOTAL
Capital	$ 596,980,947	$ 685,818,676	$ 767,965,146	$ 813,820,584	$ 779,185,223	$ 739,559,303	$ 739,943,069	**$ 5,123,272,948**
O&M	$ 74,785,933	$ 78,218,981	$ 81,350,604	$ 84,259,130	$ 85,273,993	$ 86,239,131	$ 88,056,022	**$ 578,183,793**
Variance 2023 vs. 2020	2023	2024	2025	2026	2027	2028	2029	TOTAL
Capital Variance	$ 5,681,184	$ 7,590,068	$ 7,205,025	$ (65,037,287)	$ (31,515,379)	$ 10,117,036	$ 8,568,572	**$ (57,390,779)**
O&M Variance	$ (2,691,868)	$ (1,125,578)	$ (2,395,312)	$ (6,159,334)	$ (6,288,564)	$ (4,416,105)	$ (5,642,779)	**$ (28,719,539)**
Total Variance	**$ 2,989,316**	**$ 6,464,490**	**$ 4,809,713**	**$ (71,196,620)**	**$ (37,803,942)**	**$ 5,700,932**	**$ 2,925,794**	**$ (86,110,318)**

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[5] Approved by Order PSC-2020-0293-AS-EI, issued on August 28, 2020.

~~**Q. Witness Kollen alleges that, "DEF [has] included programs and projects that are within the scope of their existing base rate programs and base rate recoveries in the normal course of business. These programs and projects are listed and addressed in greater detail by Witness Mara. These programs and projects should be excluded from the SPPs, and the costs should be excluded from recovery through the SPPCRCs..." Do you agree with this conclusion?**~~

~~A. No. This argument is beyond dispute. As Messrs. Mara and Kollen recognize in their amended testimony, the 2021 Settlement Agreement eliminates any and all doubt that DEF's programs are appropriately included in DEF's SPP 2023. That said, Mr. Kollen is again conflating recovery of costs through the SPPCRC with the inclusion of programs in the SPP; regardless, as~~ <u>As</u> DEF's 2021 Settlement Agreement and OPC's Motion to amend Messrs. Mara and Kollen's testimony makes clear, the recovery of these costs in the current SPPCRC is also appropriate. Further, DEF's SPP 2023 only contains programs that were carried over from its SPP 2020. Per the terms of the 2021 Settlement Agreement, any argument to the contrary has been rendered moot, as recognized by the amended testimonies.

~~**Q. Is Witness Kollen's interpretation of the Statute correct when he states, "To qualify for inclusion in the SPP proceedings and cost recovery in the SPPCRC proceedings, the projects and the costs of the projects must be incremental, not simply displacements of base rate costs that would have been incurred during the normal course of business…"?**~~

~~A. No. I note that this is a very similar argument to one addressed earlier (i.e., that the Plan cannot include any programs with costs recovered through base rates). OPC is again conflating two related, but distinct, concepts: the Plan and the SPPCRC. DEF agrees it is impermissible to recover SPP program costs through the SPPCRC if those same program costs are also included in base rates, but DEF disagrees that the cost recovery component has any bearing on the Plan's suite of programs. As referenced previously, DEF's SPP 2020 included programs with costs that were at the time being recovered through either base rates or the SPPCRC – when DEF reset its base rates through the 2021 Settlement Agreement, those programs being recovered through base rates were shifted to the clause – but the point is, DEF does not believe the means of cost recovery controls the make up of the SPP.~~

Q. ~~Is Witness Kollen's interpretation that "Section 366.96, Fla. Stat., and the SPPCRC Rule limit the costs eligible for recovery through the SPPCRC to incremental costs net of avoided costs (savings)" accurate?~~

~~A. No. Witness Kollen's interpretations are woefully inaccurate. Nothing in the Statute nor the Rule states or implies anything remotely close to the effect of limiting the costs eligible for recovery through the SPPCRC to incremental costs net of avoided costs (savings), as Witness Kollen alleges.~~

~~The statute and the rule sections that he cites~~[6] ~~specifically require the exclusion of costs recovered through base rates and other clause forms of ratemaking recovery from recovery through the SPPCRC, which fundamentally is a different concept altogether than he argues.~~

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[6] ~~Mr. Kollen cites section 366.96(8), Florida Statutes, and Rule 25-6.031(6)(a), Florida Administrative Code. See, pg. 14, fn. 3. Again, it is worth noting that the rule cited governs the SPPCRC, not the SPP.~~

~~Neither the statute nor the rules limit SPP programs or program costs to only incremental costs or require a reduction for avoided costs or savings, as these concepts are simply not "double recovery." Mr. Kollen is either misconstruing the purpose of these sections or is trying to expand the limitations and definition of double recovery; both are improper and should be disregarded.~~

~~Q. Witness Kollen believes that the return on Construction Work In Process ("CWIP") should not be included in calculation of the SPP revenue requirement, do you agree?~~

~~A. No. Mr. Kollen uses the SPPCRC Rule and section 366.96(9) in his attempt to argue that SPP projects should not earn a return on CWIP; this is incorrect and contradictory with traditional ratemaking. Florida utilities are permitted to earn a return on invested capital, including CWIP; this is true in base rates as well as the other cost recovery clauses. Rule 25-6.0141, "AFUDC Rule", addresses the return on invested capital. Projects that meet that rule's eligibility requirement may earn AFUDC. Part 2 states "Construction work in progress (CWIP)... not under a lease agreement that is not included in rate base may accrue allowance for funds used during construction (AFUDC)." The AFUDC rule recognizes that projects that do not meet the AFUDC requirements, will be included in rate base. For the 2023 SPP, DEF's projects do not meet the requirements to accrue AFUDC; therefore, DEF has included these projects in SPP rate base and the revenue requirements calculations for the 2023 SPP.~~

~~Additionally, a return on CWIP is recognized in other clauses. For example, in Order No. PSC-1994-0044-FOF-EI, the Commission found that~~

> ~~[t]he utility's investment in plant under construction can be accounted for by either of two methods. An Allowance for Funds Used During~~

> ~~Construction (AFUDC) may be applied to the balance to be capitalized and later recovered through depreciation charges once the plant is placed in service. When this method is chosen, the financial statements of the utility reflect income 'credits' associated with AFUDC, but the utility realizes no current cash earnings from the investment in CWIP. Alternatively, CWIP may be included as a portion of rate base. Where the latter treatment is allowed, CWIP generates cash earnings.~~

~~Further paragraph 3(a) of the 2020 SPP/SPPCRC Agreement[7] states that "[f]or those programs that are approved by the Commission in DEF's proposed SPP in 2020, DEF will include the Construction Work In Progress ('CWIP') balances as of January 1, 2021 as the beginning SPPCRC Rate Base balances and calculate a return on these costs from January 1, 2021 forward for cost recovery in 2021." DEF's treatment of CWIP in the 2023 SPP is consistent with DEF's treatment of CWIP in the 2020 SPP and the SPPCRC filings made in 2020, 2021 and 2022.~~

~~In summary, traditional ratemaking allows a utility to earn a return on invested capital, including CWIP; to deny this return in SPP (or more accurately, SPPCRC) is improper ratemaking.~~

~~Q. Witness Kollen offers alternatives to recovering a return on CWIP immediately, such as deferring CWIP either as allowance for funds used during construction ("AFUDC") or as a miscellaneous deferred debit, do you agree with either approach?~~

~~A. No. As previously stated, section 2(a) of the AFUDC Rule addresses the eligibility for a project to accrue AFUDC, and DEF's SPP 2023 projects do not meet those requirements and are thus ineligible to accrue AFUDC. Moreover, the use of miscellaneous deferred debit is wholly inappropriate and is inconsistent with the AFUDC rule. This idea of~~

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[7] Approved in Order No. PSC-2020-0410-AS-EI (Docket No. 20200092-EI, issued Oct. 27, 2020).

~~deferring debits was discussed and rejected by Commission Staff during the SPP and SPPCRC rulemaking process and properly rejected in Staff's Recommendation and Analysis:~~[8]

> ~~Under OPC's interpretation, an IOU would incur costs in one year but couldn't request recovery of those costs until the next year's SPPCRC. If the Commission approved those costs in the SPPCRC, the utility could not begin recovering the costs until the year after. This leaves customers paying carrying costs for two years. Thus, using a cost recovery mechanism that should minimize that regulatory lag, as staff is recommending in draft Rule 25-6.031, F.A.C., should also minimize the carrying costs customers have to pay.~~

~~Further in Staff's analysis,~~

> ~~Staff envisions the SPPCRC mirroring other Commission cost recovery clauses. In the Nuclear Cost Recovery Clause (NCRC), Energy Conservation Cost Recovery Clause (ECCR), and Environmental Cost Recovery Clause (ECRC), the Commission projects the costs the utility will incur in the next year and sets a factor that will allow the company to recover those costs from customers as the costs are incurred.~~

~~Finally Staff stated,~~

> ~~Second, allowing for the recovery of projected costs enables the IOUs to recover costs as they are incurred. This reduces regulatory lag and, ultimately, the costs passed on to customers, which is the purpose of cost recovery clauses. Staff believes IOUs will be entitled to recover carrying costs associated with the lag between when they incurred costs and when they recover them.~~

~~Q. Mr. Kollen asserts that, "[c]osts cannot be deemed prudent or reasonable unless and until the costs are charged to specific projects, construction is completed (or prudently abandoned), and the CWIP is converted to plant in service." Do you agree that this is the appropriate docket to make such an argument?~~

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[8] *See* Docket No. 20190131-EU, Issue 1 (filed Sept. 20, 2019).

~~A. No, Mr. Kollen is addressing items specific to the SPPCRC. Rule 25-6.031(3) requires the Commission to hold an annual SPPCRC hearing to address petitions for recovery of SPP costs that "will be limited to determining the reasonableness of projected Storm Protection Plan costs, the prudence of actual Storm Protection Plan costs incurred by the utility, and to establish Storm Protection Plan cost recovery factors . . ." That is, this docket is not the appropriate forum for determining cost recovery issues.~~

~~In fact, the only place where "reasonableness" is mentioned with regard to the Plan itself is in Rule 25-6.030(3)(e), which requires a utility to provide a description its service area, including prioritized areas and any areas the "utility has determined that enhancement of the utility's existing transmission and distribution facilities would not be feasible, *reasonable*, or practical. Such description must include . . . the utility's reasoning for prioritizing certain areas for enhanced performance and for designating other areas of the system as not feasible, *reasonable*, or practical." Nowhere in Rule 25-6.030 is the word "prudent" or a test of "prudency" mentioned or required because the Plan establishment phase is not the point for determining cost recovery, where prudence becomes an issue, but rather it is the time for the Commission to determine whether the Plan as a whole is in the public interest.~~

Q. Mr. Kollen asserts that DEF's calculations of the estimated revenue requirements had errors that needed to be corrected. Do you agree with that allegation?

A. No. DEF fully complied with Rule 25-6.030(3)(g)'s requirement that it provide "An estimate of the annual jurisdictional revenue requirements for each year of the Storm Protection Plan." It is important to recognize these estimates are not used to set rates or clause factors; these are calculations to provide reasonable estimates for the capital, O&M, and revenue requirements of the SPP for planning purposes. The actual clause factors will be determined in the SPPCRC. DEF properly included the appropriate elements for ratemaking in its calculations: CWIP; Depreciation; and Property Tax.

Witness Kollen claims that DEF improperly calculated depreciation expense on CWIP at the end of the prior year, but also failed to calculate depreciation expense on current year plant additions. Mr. Kollen's statements are incorrect as explained in DEF's response to OPC Interrogatory No. 58:

> Consistent with the revenue requirement calculation in DEF's SPP 2020, DEF's CWIP balance is incorporated into the 'Investment' line for each SPP program. DEF has accounted for CWIP within the depreciation expense calculation. Within the current year, a portion of each program is assumed to be placed in-service. Therefore, the amount of investment not yet placed in-service is representative of the CWIP balance.

For programs that assumed that CWIP was placed in service throughout the current year (e.g., Transmission Structure Hardening), DEF did calculate depreciation expense on current year plant additions. DEF also has programs that incur investment on individual projects throughout the year but are placed in-service when all work within a target location is complete; for financial modeling purposes, DEF assumed an end of year in-service for these programs.

Regarding Mr. Kollen's statements on the calculation of property tax expense, the expenses included in DEF's SPP 2023 are simply estimates for the 10-year period developed to provide the estimate of the annual jurisdictional revenue requirements as required by Rule 25-6.030(3)(g). DEF uses reasonable methods to estimate the property tax expense for the SPP programs over the planning timeframe, but ultimately property tax expenses collected from customers are based on the projections filed in the SPPCRC filings, not DEF's 2023

SPP, and those projected amounts are subject to true-up based on the actual property taxes incurred. Therefore, a revision to the calculation of estimated property tax expense in DEF's SPP 2023 filing is unnecessary. Further, the Commission should not establish a property tax expense calculation, as contemplated by Mr. Kollen, that would override the true-up based on actual expenses as that would defeat the purpose of the true-up to actual expenses in the SPPCRC and would create a departure in the true-up of property tax expense in the SPPCRC compared to other clauses such as ECRC and ECCR. Finally, the Commission, Commission Staff and intervenor parties have the right to review the actual property tax expenses submitted in the SPPCRC filings.

DEF believes the figures presented on page 56 of 56 in Exhibit No.__(BML-1) appropriately represent the estimated annual jurisdictional revenue requirements for each year of the SPP. Actual cost recovery will occur through the annual SPPCRC process.

Q. Mr. Kollen contends that the utilities will retain the avoided cost savings for costs presently recovered in base rates unless these costs are addressed in this proceeding and the SPPCRC proceedings or otherwise included in a negotiated resolution. Do you agree?

A. No. It is not true now, just as it was not true when then OPC Witness Schultz made a similar statement in Docket No. 20200069-EI, "that there is a risk that ratepayers will be paying for improvements that will reduce the Company's costs in base rates, but those savings will not be passed through to the ratepayers." In rebuttal, DEF Witness Foster stated:

> The SPP statute addresses new investments to strengthen the electric utility infrastructure to withstand extreme weather conditions and improve overall service reliability. It creates a cost recovery clause for investments to accomplish this goal. It also ensures there is no double recovery for these

> costs by stating in paragraph (8) that "storm protection plan costs may not include costs recovered through the public utility's base rates." This clearly addresses the double recovery concern. Rule 25-6.031(6)(b) implements this statutory directive by stating "Storm Protection Plan costs recoverable through the clause shall not include costs recovered through the utility's base rates or any other cost recovery mechanism."
>
> It is the normal process for base rate costs to change over time and this creates regulatory lag. Some costs will decrease, others will increase. The SPP Statute was not developed to address appropriate levels of costs in base rates, it was developed to facilitate investment in work that will strengthen the transmission and distribution systems from extreme weather to help reduce restoration times and costs. There is in fact already a way that the Commission monitors Florida utilities to ensure no excessive recovery is occurring. The Commission requires monthly Earnings Surveillance reports. These reports show the earned return on equity (ROE). In a rate case, the FPSC authorizes an allowed ROE for utilities. If a utility reports a ROE that is too high, the parties or the Commission itself may call the Utility in for a rate case. Unlike cost recovery clauses, the normal and established process for base rates involves regulatory lag.

Mr. Foster's remarks still hold true and I would reiterate them in response to Mr. Kollen's contention.

DEF addressed compliance on this issue in the response to OPC's Interrogatory 59. In that response, DEF explained that these adjustments are included in the SPPCRC filings.

> "Consistent with the model that was developed by DEF for its April 10, 2020, SPP filing, DEF did not include any assumptions for reductions assumed in the calculation of depreciation expense associated with retirements for plant that was previously recovered in base rates. In DEF's annual SPPCRC filings, DEF includes credits associated with the depreciation expense for base rate assets retired as part of an SPP program. When the value of the base asset is removed from EPIS during a subsequent rate case, the depreciation expense credit included in the SPPCRC filings associated with these assets should simultaneously cease. DEF does not make assumptions for timing and outcomes of rate cases that would be necessary to accurately reflect a reasonable amount of credit within the SPP Revenue Requirement model. DEF believes that this is the appropriate approach since the credits are included in the SPPCRC filings which are used to set customer rates and are subject to true-up.

Again, the purpose of the SPP is not to prepare the precise calculations for clause factor development; that process takes place in the SPPCRC. As DEF notes in its response, DEF has included these credits in the SPPCRC filings in Docket 20220010-EI.

V. CONCLUSION

Q. Mr. Menendez, your rebuttal covers a lot of ground, but did you respond to every contention regarding the Company's proposed plan in your rebuttal?

A. No. Intervenor testimony on the SPP involved many pages of testimony and I could not reasonably respond to every single statement or assertion and, therefore, I focused on the issues that I thought were most important. As a result, my silence on any particular assertion in the intervenor testimony should not be read as agreement with or consent to that assertion.

I specifically did not challenge many of Mr. Kollen's suggestions or recommendations he makes related to changing methodologies for calculating revenue requirements and rate calculations in the SPPCRC proceeding, again not because I agree with them, but rather I believe he is treading on Rulemaking grounds which is not appropriate for consideration or argument at this time.

Q. Does this conclude your testimony?

A. Yes.

MR. BERNIER: Thank you. And, with that, we just ask that Mr. Menendez be excused.

CHAIRMAN FAY: Make sure -- if we have any cross.

MR. BERNIER: No. No. No. We'd like him excused now.

CHAIRMAN FAY: I'm sure you do, Mr. Bernier.

MR. REHWINKEL: Nice try.

CHAIRMAN FAY: Yeah. Mr. Rehwinkel.

EXAMINATION

BY MR. REHWINKEL:

Q Yes. I would like to ask Mr. Menendez to turn to page six, lines two through 12.

A Of which documents, sir?

Q Of your -- I want you to turn to your revised testimony.

MR. REHWINKEL: Mr. Chairman, if you could give me one second. I spoke to Mr. Bernier about this, but I've had a senior moment and I'm very senior at this time.

MS. HELTON: Do you mean the corrected proffered testimony?

MR. REHWINKEL: Yes.

CHAIRMAN FAY: That proffered for me would start on page seven. Does that help you at all?

BY MR. REHWINKEL:

Q Yes, I apologize. So I meant on line seven -- I mean, on page seven, lines eight through 12, if you could review those.

A I have reviewed them.

Q Okay. You could review Mr. Kollen's -- the portion of his testimony that was not stricken at pages two and three, specifically the lines 19 on page two through four on page three.

A The sentence that begins my testimony should?

Q Yes, sir.

A I've reviewed those lines.

Q Thank you. Where you say that Misters Mara and Kollen recognize in their amended testimony, the 2021 settlement agreement eliminates any and all doubt that DEF's programs are appropriately included in DEF's SPP 2023. Do you see that?

A I do.

Q Would you agree with me in referring to Mr. Kollen's testimony at the top of page three, that he qualified his recognition of the effect of paragraph four from the 2021 agreement, that it only applies in his opinion to the years 2023 and 2024, but not 2025?

A I see that qualification in his testimony.

Q Okay. Is it still your position that he's

agreed that these programs should be included in SPP?

A It is my conclusion that consistent with paragraph four of DEF's 2021, the 2022, which is not in our current SPP, 2023 and 2024 are appropriately included in the SPP and in the SPP CRC.

Q Okay. Do you have a copy of the settlement agreement from 2021?

A Yes, sir, I believe I do. I have it, sir.

Q Is it your position that -- well, if I could read you this paragraph four. It says the parties agree that DEF has properly removed all costs associated with the storm protection plan (SPP) from the costs included in DEF's MFR's attached hereto as Exhibit 1. Did I read that right?

A Yes, sir. I believe so.

Q Would you agree that DEF's MFR's only cover the years 2023 and 2024?

A As part of this settlement.

Q Okay. Thank you.

MR. REHWINKEL: Those are all the questions I have. Thank you, Mr. Menendez.

CHAIRMAN FAY: Thank you. Any questions from FIPUG, Nucor?

All right. Mr. Bernier.

MR. BERNIER: No -- nothing further from me, sir.

CHAIRMAN FAY: We are -- we've entered 110. You can now excuse your witness, if you'd like.

MR. BERNIER: Thank you.

CHAIRMAN FAY: Thank you, Mr. Menendez.

THE WITNESS: Thank you, Mr. Chairman. Thank you, Commissioners.

(Witness excused.)

CHAIRMAN FAY: All right. Commissioners, next we will move to TECO.

MR. MEANS: Thank you, Mr. Chairman. Tampa Electric calls Mr. David A. Pickles back to the stand.

CHAIRMAN FAY: Welcome back.

Whereupon,

DAVID A. PICKLES

was recalled as a witness, having been previously duly sworn to speak the truth, the whole truth, and nothing but the truth, was examined and testified as follows:

EXAMINATION

BY MR. MEANS:

Q Good afternoon, Mr. Pickles.

A Good afternoon.

Q Were you previously sworn?

A Yes.

Q And do you understand that you're still under oath?

A I do.

Q Did you prepare and cause to be filed in this docket on June 21st, 2022, a prepared rebuttal testimony consisting of 15 pages?

A Yes.

Q And in response to the Commission's order striking portions of OPC Witness Kollen's testimony, did you cause to be filed on this docket on August 2nd a revised version of that rebuttal testimony?

A I did.

Q Do you have any corrections to your revised rebuttal testimony?

A No, I do not.

Q If I were to ask you the questions contained in your revised rebuttal testimony today, would your answers be the same?

A Yes, they would.

Q Thank you.

MR. MEANS: Mr. Chairman, we'd ask that the revised rebuttal testimony of Mr. Pickles be entered into the record as though read.

CHAIRMAN FAY: Show inserted.

(Whereupon, prefiled rebuttal testimony of

David A. Pickles was inserted.)

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

TAMPA ELECTRIC COMPANY
DOCKET NO. 20220048-EI
FILED: June 21, 2022

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.

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

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

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

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

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]

A. [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[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 analysis results in “excessive dollar benefits.” He also presents his own cost-benefit analysis on page 7 of his testimony. Do you have any issues with his critiques and his own cost-benefit assessment?

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

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

Q. [redacted]

A. [redacted]

Q. [redacted]

A. [redacted]

Q. [redacted]

A. [redacted]

[redacted]

Q. [redacted]

A. [redacted]

[redacted]

[redacted]

R. [redacted]

A. [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

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

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

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

A. As I stated before, I do agree that each SPP program and project should reduce restoration costs and reduce outage times. I do not, however, believe the distinction has been made that these two benefits from each SPP program and project fall into a strict two prong test. I also disagree with what I believe is Mr. Mara’s perspective of what is cost-effective. In short, I believe Mr. Kollen and Mr. Mara view cost-effectiveness solely in terms of whether the program pays for itself in terms of avoided restoration costs. As I explained above, the SPP Statute is clearly taking a much larger view of the benefits to the State as a whole.

Q. On Page 13, Mr. Mara proposes to cut $570 million from Tampa Electric’s Distribution Lateral Undergrounding Program. Do you agree with Mr. Mara’s proposed limits to this program?

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

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

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

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

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

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

Plusquellic in his Rebuttal Testimony on this topic.

Q. Does this conclude your rebuttal testimony?

A. Yes.

MR. MEANS: And we waive summary and tender the witness for cross.

CHAIRMAN FAY: Great. Ms. Wessling, you're recognized.

MS. WESSLING: Thank you, Chairman.

EXAMINATION

BY MS. WESSLING:

Q Good afternoon, again.

A Good afternoon.

Q I only have a few questions for you on this portion.

A Sure.

Q But if you could go ahead and turn to page 13 of your rebuttal testimony, please.

A Yes.

Q Okay. I believe on lines 15 through 17, Mr. Mara proposed reducing the spending for the distribution lateral undergrounding program. And in your testimony, you criticize Mr. Mara for not identifying specific laterals that should be included -- or excluded from the plan, is that correct?

A I would say that his recommendations were quite arbitrary. It was just a proposed cut to the total spend.

Q All right. If the Commission were to agree

with Mr. Mara about his recommendation, though, should it be TECO that -- or shouldn't it be TECO that is the one to decide which laterals to exclude?

A Yes, absolutely. It would be, yes.

Q Okay. And in reference to your rebuttal testimony, again on page 13, lines 20 through 23, you stated that the SPP is a 10-year program and that the Commission will have the opportunity to revisit the plan in three years, correct?

A That's right.

Q If the Commission adopts Mr. Mara's recommendation, then in the three years the Commission could -- or in three years, the Commission could agree to increase the budget for the distribution lateral undergrounding program if the Commission believed that the resiliency improvements from the undergrounding program are better qualified at that time, correct?

A Yes, they would have that authority.

Q And as a whole, this 2023 -- or I don't know if you refer to it as 2022 or --

A 2022 through 2031.

Q Okay. Tampa's plan that they filed in this docket has changed in some degrees since the 2020 plan that Tampa filed, correct?

A Very minimally, but slightly, yes.

Q It's adapted?

A Yes.

Q Okay. So it's possible for this plan to change, as well?

A It certainly could be recommended to be changed, yes.

MS. WESSLING: Okay. Nothing further at this time for this section.

CHAIRMAN FAY: Thank you Ms. Wessling. FIPUG.

MR. MOYLE: No questions.

CHAIRMAN FAY: Ms. Eaton.

MS. EATON: No questions.

CHAIRMAN FAY: Staff.

MR. IMIG: Staff has no questions.

CHAIRMAN FAY: With that, Mr. Means, redirect?

MR. MEANS: No redirect.

CHAIRMAN FAY: Okay. And no exhibits entered.

MR. MEANS: No exhibits.

CHAIRMAN FAY: Mr. Means, we will recognize you for the proffered testimony.

MR. MEANS: Thank you, Mr. Chairman. In response to the Office of Public Counsel's proffer of the prefiled direct testimony of Mr. Kollen, we would ask that the rebuttal testimony of Mr. Pickles, originally filed on June 21st 2022, be entered into the proffered record.

CHAIRMAN FAY: Okay. Show that proffered.

(Whereupon, prefiled rebuttal proffered testimony of David A. Pickles was inserted.)

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

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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A. Yes, I am.

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

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

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

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

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REBUTTAL TO DIRECT TESTIMONY OF LANE KOLLEN:

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

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

~~**Q.**~~ ~~Do you agree with this proposal?~~

~~**A.**~~ ~~I do not, for three reasons.~~

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

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

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

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

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

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

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

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

Q. ~~Does Mr. Kollen suggest adoption of a specific cost-benefit ratio?~~

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

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

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

Q. ~~Do you agree with this characterization of the SPP activities as discretionary?~~

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

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

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

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

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

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

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

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

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

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

~~**Q.** On Page 14, Mr. Kollen states that utilities should~~

~~exclude programs and projects that “are within the scope of their existing base rate programs and base rate recoveries” from their SPPs. Do you agree?~~

A. ~~No, I do not. Mr. Kollen’s statement clearly contradicts the Statute and the Commission’s obligations requiring Tampa Electric and the other utilities to files SPPs. In fact, his statement would essentially eliminate any SPP from being developed as the majority of the activities that Tampa Electric performs, at one time or another~~ in ~~its history were recovered in base rates. Furthermore~~, ~~some of the activities included in the company’s SPP are recovered through base rates. This is because the SPP Statute requires the SPP to include the company’s comprehensive, “systematic approach” to storm hardening and does not require the company to exclude activities included in base rates from the SPP. As explained above, the costs of these activities included in base rates are excluded from the SPPCRC to avoid double recovery. In addition, his statements are not supported by any rigorous analysis or basis in the record of this proceeding.~~

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

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

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

A. As I stated before, I do agree that each SPP program and project should reduce restoration costs and reduce outage times. I do not, however, believe the distinction has been made that these two benefits from each SPP program and project fall into a strict two prong test. I also disagree with what I believe is Mr. Mara's perspective of what is cost-effective. In short, I believe Mr. Kollen and Mr. Mara view cost-effectiveness solely in terms of whether the program pays for itself in terms of avoided restoration costs. As I explained above, the SPP Statute is clearly taking a much larger view of the benefits to the State as a whole.

Q. On Page 13, Mr. Mara proposes to cut $570 million from Tampa Electric’s Distribution Lateral Undergrounding Program. Do you agree with Mr. Mara’s proposed limits to this program?

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

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

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

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

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

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

Plusquellic in his Rebuttal Testimony on this topic.

Q. Does this conclude your rebuttal testimony?

A. Yes.

MR. MEANS: Thank you. And no summary on this and we tender the witness for cross.

CHAIRMAN FAY: Okay. Ms. Wessling, you're now recognized.

MS. WESSLING: Thank you, again.

EXAMINATION

BY MS. WESSLING:

Q If you could, within your stricken version of your rebuttal testimony, could you turn to page nine, please?

A Yes.

Q Okay. Starting with line 12, you state that Mr. Kollen is incorrect when he said that the utilities did not with limited exceptions explicitly include -- exclude the costs presently recovered in base rates, or expressly account for any avoided cost savings?

A That is correct.

Q You further cite to Tampa Electric's recent rate case where SPP CRC costs were removed from your base rates in the test year, correct?

A That's right.

Q Do you recall that Mr. Kollen referenced two specific types of avoided costs currently recovered in base rates, one of those being avoided depreciation expense on plant that has retired due to SPP plant

investments, and the other being the avoided O&M expenses due to the SPP plan investments and SPP O&M expenses?

A Not specifically. But, yes, I do recall that.

Q Generally?

A Generally, yes.

Q Okay. In fact, in Tampa Electric's filing to estimate the SPP revenue requirement, the company makes an adjustment to remove depreciation expense on plant that is retired due to SPP plant investments, correct?

A Can you repeat that question?

Q Sure. In Tampa Electric's filing to estimate the SPP revenue requirement, the company makes an adjustment to remove depreciation expense on plant that is retired due to SPP plant investment.

A I would ask that the witness, Richard Latta, answer that question.

Q All right. When the SPP plant and SPP O&M expense investments are made, do you expect that that will lead to a savings in annual O&M expense due to the newer hardened transmission and distribution systems?

A We will continue to evaluate that. It is very early in the program. Unable to say specifically.

Q But those -- are you able to say that you do expect savings in those areas from this hardening?

A We will continue to evaluate. And, again, I can't say for sure if there will be or not, but if there are we will certainly implement them.

Q And base rates will remain in effect for Tampa Electric until the next base rate case, right?

A Correct.

Q And the base rates currently in effect are based in part on the level of O&M expense in the test year, correct?

A Yes.

Q So if there are savings, from O&M expense due to the SPP program investments, those savings won't be passed along to customers until the rates from the next base rate case are authorized, correct?

A I believe so.

MS. WESSLING: Okay. Nothing further.

CHAIRMAN FAY: Thank you. Nucor.

MR. MATTHEIS: Not a part of this.

CHAIRMAN FAY: Ms. Eaton.

MS. EATON: No questions.

MR. MOYLE: FIPUG has no questions.

CHAIRMAN FAY: Okay. Staff.

MR. IMIG: Staff has no questions.

CHAIRMAN FAY: Commissioners? Any redirect?

MR. MEANS: No redirect, Mr. Chairman. We just ask that Mr. Pickles be excused.

CHAIRMAN FAY: Mr. Pickles, you are excused. Travel safe.

THE WITNESS: Thank you.

(Witness excused.)

(Transcript continues in sequence in Volume 8.)

CERTIFICATE OF REPORTER

STATE OF FLORIDA)
COUNTY OF LEON)

I, DANA W. REEVES, Professional Court Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 12th day of August, 2022.

Dana Reeves

DANA W. REEVES
NOTARY PUBLIC
COMMISSION #GG970595
EXPIRES MARCH 22, 2024