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FPL's Response to FIT's Second Request for Production of Documents Nos. 16-17.

QUESTION:
Please list all transmission and distribution investments that are proposed to be recovered from customers during 2022-2025, and specify which program(s) they are related to, and whether they will be recovered through base rates or clauses.

RESPONSE:
Please see FPL's specific objections filed on May 24, 2021 and general objections filed contemporaneously with this response. Notwithstanding and without waiving these objections, FPL responds as follows:

Please refer to FPL's response to Staff's First Set of Interrogatories, No. 9.

For the total amount of transmission and distribution investment included in base rates for the 2022 Test Year and 2023 Subsequent Year, please see chart below. Note, as explained by FPL witness Fuentes in her direct testimony, FPL proposes to move all remaining SPP capital expenditures not currently recoverable through SPPCRC (i.e., Gulf's Transmission Inspection Program) from base rates to the SPPCRC effective January 1, 2022. As such, the amounts included in the chart below reflect the proposed transfer for the Gulf Transmission Inspection Program from base to clause. Cost of removal and retirements associated with FPL's SPP programs for assets existing prior to 2021 are forecasted to be recovered through base rates.

Per Book - 13-month Averages

	($ in millions)	
Function	2022	2023
Transmission Plant-in-Service	$ 9,838	$11,339
Distribution Plant-in-Service	$24,462	$26,086
Total	$34,300	$37,425

In addition, please refer to FPL witness Spoor's direct testimony, Page 37, Lines 10 through 12, "FPL's and Gulf's combined T&D base (i.e., non-clause) capital costs for 2019-2022 and for 2023 are $12.72 billion and $2.98 billion, respectively" which includes cost of removal. Furthermore, please refer to the file "Rate Case Backup – Spoor Testimony" located in the folder labeled "Witness Spoor" provided in FPL's supplemental response to OPC's First Request for Production of Documents, No. 36 which provides detail on the types of transmission and distribution capital expenditures, including cost of removal, for the period 2019 through 2023.

For transmission and distribution investments being recovered through FPL and Gulf Power's storm protection plan clauses, please refer to:

FPL and Gulf's 2020-2029 Storm Protection Plan (Docket Nos. 20200071-EI and 20200070-EI) filed on April 10, 2020.

http://www.psc.state.fl.us/ClerkOffice/DocketDetail?docket=20200071
http://www.psc.state.fl.us/ClerkOffice/DocketDetail?docket=20200070

Storm Protection Plan Cost Recovery Clause (Docket Nos. 20200092-EI and 20210010-EI) filed on July 24, 2020 and May 3, 2021 respectively.

http://www.psc.state.fl.us/ClerkOffice/DocketDetail?docket=20200092
http://www.psc.state.fl.us/ClerkOffice/DocketDetail?docket=20210010

QUESTION:
Please refer to Int. No. 2 (above). Please list each zip code where these transmission and distribution investments are located.

RESPONSE:
Subject to and without waiving FPL's specific objections filed on May 24, 2021 and general objections filed contemporaneously with this response, FPL responds as follows:

The proposed transmission and distribution investments described in FPL witness Spoor's direct testimony are not tracked at the zip code level as a normal process function.

The following counties are associated with the NFRC: Columbia, Suwannee, Madison, Jefferson, Leon, Gadsden, and Jackson.

The following counties are associated with the 500kV rebuild program: Dade, Broward, Palm Beach, Martin, St. Lucie, Okeechobee, Hendry, Lee, Collier, Clay, Duval, Flagler, Putnam, Orange, Seminole, Indian River, Volusia, St. Johns, and Osceola.

The following counties are associated with significant investments in substations construction: Dade, Lee, Manatee, Walton, and Santa Rosa.

QUESTION:
For all combined cycle plants and combustion turbines proposed in the Company's 2021 Ten Year Site Plan, provide the expected book life for each plant. Additionally, please specify whether the Company anticipates applying low-carbon retrofits to these plants, including retrofits for hydrogen fuel, renewable natural gas, or carbon capture and storage. If so, are these costs included in CPVRR estimates? If not, why not? Did the Company conduct CPVRR estimates based on other expected book life assumptions? If so, what were those assumptions and results?

RESPONSE:
For the current book life for both combined cycle units and combustion turbine units please see FPL's response to CLEO Institute and Vote Solar's First Set of Interrogatories No. 59 for in service dates and refer to FPL witness Allis, VI-19 of the Depreciation Study Page 70-80 of exhibit NWA-1 Table 2 "Comparison of remaining life annual depreciation rates and accruals for electric plant as of December 31, 2021 based on existing and proposed depreciation rates" listing probable retirement date.

FPL did not include any costs for potential "low carbon retrofits" or evaluate different book life assumptions for new combined cycle and combustion turbine units, in the resource planning analyses that support this filing because applying any such costs at this time would be premature and speculative. At the current time there are no legislation- and/or regulation-based requirements for such retrofits. In addition, the costs of certain such retrofits, such as utilizing green hydrogen, are uncertain. FPL's green hydrogen pilot project, with a planned in-service date of 4th Quarter 2023, will provide insight into the cost and the performance of the equipment needed to utilize green hydrogen in a combined cycle power plant.

QUESTION:
Please refer to Witness Forrest's direct testimony at p. 16, lines 14-18. Please state the number of renewable energy certificates ("RECs") that are being banked by FPL; which program(s) or projects the RECs are associated with; whether any of these RECs have been monetized to date (and if so, in what markets, and at what price); how FPL proposes to monetize RECs as part of the Incentive Mechanism program; and how FPL is marketing the related solar generation under each impacted program or project.

RESPONSE:
FPL has not currently banked renewable energy certificates (RECs). FPL has proposed to monetize future banked solar RECs associated with solar generation facilities, excluding the Solar Together project, as part of Incentive Mechanism activities. The RECs could be sold to third parties via brokers in the National Voluntary Market or as structured products to commercial/industrial customers with stated emissions targets.

QUESTION:
Please refer to Witness Spoor's testimony, p. 16, lines 13-14. Please provide the expected improvements in SAIDI, SAIFI, and MAIFIe in 2021-2023 from FPL's T&D reliability initiatives.

RESPONSE:
T&D reliability initiatives, and the associated investments, are necessary to maintain the current reliability standards and performance as well as the continued improvement in overall system reliability. FPL measures reliability performance at the system level. Power Delivery strives for continual reliability improvement and these initiatives, along with others, have the potential to deliver approximately 2 - 4% annual improvement in SAIDI on top of the current reliability performance, with similar type improvements in the other metrics. FPL's investments have resulted in best ever SAIDI in 2019 and that performance was improved upon again in 2020 as shown in FPL witness Spoor's Exhibits MS-3, MS-4, MS-5, and MS-6. Additionally, customer reliability-related complaints have improved by 32% from 2020 versus 2016, a testament to the impact of investing in the overall reliability of the grid. Overall system reliability performance, measured over multiple years, remains the best tool to determine improvements and customer benefits for the totality of all programs, processes, and initiatives implemented, and this has been recognized by the Commission.

QUESTION:
Please refer to Witness Spoor's testimony, p. 18, lines 12-22.

a. Please provide, in spreadsheet form, FPL's benefit/cost analysis demonstrating that the benefits of its Grid Modernization/Smart Grid program exceed the costs for FPL's customers.

b. Please explain FPL's strategy or approach to deploying smart devices including the typical number of AFS, ALS, ATS and FCI per distribution circuit.

c. Please explain how FPL prioritizes circuits for deployment of smart devices.

d. Please explain how minority and low-income communities are benefiting from FPL's deployment of smart devices.

e. Please provide the total number of FPL and Gulf distribution circuits, the current number of circuits with AFS/ALS/ATS/FCI, and the planned number of circuits with AFS/ALS/ATS/FCI by 2023.

f. Please provide a spreadsheet containing the number of actual or planned installations of AFS, ALS, ATS and FCI devices each year 2019-2023.

g. In the same spreadsheet as f), please provide the expected improvements in SAIDI, SAIFI, and MAIFIe from the deployment of smart devices each year 2019-2023.

h. Please provide typical unit costs for AFS, ALS, ATS and FCI installations

RESPONSE:
Subject to and without waiving FPL's specific objections filed on May 24th, 2021 and general objections filed contemporaneously with this response, FPL responds as follows

a. The Florida Public Service Commission ("FPSC" or "Commission") has recognized the importance of reliability as per their requirement to file the Annual Reliability Filing per 25.60455 F.A.C. available at - http://www.psc.state.fl.us/ElectricNaturalGas/ElectricDistributionReliability which includes costs and benefits of FPL's various reliability and hardening initiatives.

   See also FPL's Storm Protection Plan Rebuttal Testimony filed in Docket No. 20200071-EI at the link provided below for a generally applicable description of how cost benefit analyses relate to reliability programs.
   http://www.psc.state.fl.us/library/filings/2020/03369-2020/03369-2020.pdf

b. FPL maintains a philosophy of continuous improvement. As explained in FPL's Annual Reliability Filing to the FPSC, "these devices will help mitigate the effects of a feeder and lateral interruption by clearing temporary faults, decreasing voltage sags, decreasing field visits for replacing blown fuses, isolating problematic areas, and decreasing restoration time; making it a more reliable system." The overarching strategy/approach is to reduce the number of outages, reduce the number of customers impacted by an outage and reduce the duration of outages for those customers that experience an event.

c. As explained in FPL's response to Vote Solar/CLEO's First Set of Interrogatories, No. 86b, FPL's strategy/approach is to reduce the number of outages, reduce the number of customers impacted by an outage and reduce the duration of outages for those customers that experience an event. As a result, FPL's deployment strategy is centered around reducing problematic and recurring circuit issues based on annual analyses.

d. Please refer to FPL's response to Vote Solar/CLEO's First Set of Interrogatories, No. 86b & 86c.

e. See table below for the total number of circuits with AFS/ALS/ATS/FCI for 2019 and 2020.

Qty of Circuits	Actual 2019*	Actual 2020*
AFS	2,456	2,713
ALS	2,795	3,080
ATS	1,407	1,927
FCI	2,832	2,922

* FPL does not plan or forecast on a circuit basis.

f.

Qty of Devices	Actual 2019	Actual 2020	Planned* 2021	Planned* 2022	Planned* 2023
AFS	1,964	1,897	930	800	800
ALS	6,061	6,498	3,084	TBD	TBD
ATS	8,555	12,507	15,000	12,400	TBD
FCI	4,257	3,546	4,040	TBD	TBD

*Allocation within Smart Grid Initiatives has not yet been determined at this time. Furthermore, future installation of AFS, ALS, ATS, and FCI are subject to changes based on field conditions, extreme weather events, and reliability analysis.

g. Please refer to FPL's response to Vote Solar/CLEO's First Set of Interrogatories, No. 84. Smart grid initiatives, and the associated investments, are necessary to maintain the current reliability standards and performance as well as the continued improvement in overall system reliability. FPL measures reliability performance at the system level. An example of the associated benefits of smart grid devices such as the AFS device is shown in FPL witness Spoor's Exhibit MS-6, where AFS devices avoided 1.6 million customer interruptions in 2020.

h. FPL's response to Vote Solar-CLEO's First Set of Interrogatory No. 86 (h) is designated as Highly Sensitive Information as that term are used in the Confidentiality Agreements in use in this proceeding. The answer to this interrogatory will be made available for inspection at The Radey Law Firm located at 301 South Bronough Street, Suite 200, Tallahassee, Florida 32301, provided the reviewing party has executed the Confidentiality Agreement and remains in compliance with the requirements of the Confidentiality Agreement associated with the review of Highly Sensitive.

QUESTION:
Please refer to Witness Spoor's testimony, p. 20, line 13.

a. Please explain FPL's strategy or approach for determining when to upgrade a substation transformer relay.

b. Please provide the number of actual or planned substation transformer relay upgrades each year 2019-2023 in spreadsheet form.

c. Please provide typical unit costs for substation transformer relay upgrades.

RESPONSE:
Subject to and without waiving FPL's specific objections served May 24th, 2021 and general objections served contemporaneously with this response, FPL responds as follows:

a. FPL's strategy is based on several factors such as equipment age, standardization, and material obsolescence, all of which are a contributing factor in determining when a substation transformer relay scheme is scheduled for upgrade or replacement. FPL also factors in customer service impact and overall reliability and system performance into the scheduled upgrades to eliminate possible failures of aging equipment and avoidance of unscheduled customer interruptions. FPL incorporates equipment standardization across the system as part of the overall strategy of upgrading substation transformer relay schemes to create efficiency and improve system performance. Finally, new technology usually provides expanded functionality and options that provide all our customers with improved reliability when incorporated within other projects and system improvements.

b.

	Actual 2019	Actual 2020	Actual/Estimated 2021	Estimated 2022	Estimated 2023
Upgrade a substation transformer relay[1]	12	22	48	44	44

[1] Estimates could vary based on a number of factors, including, but not limited to: permitting, easement issues, change in scope; resource constraints, and/or extreme weather.

c. FPL's response to Vote Solar-CLEO's First Set of Interrogatory No. 87(c) is designated as Highly Sensitive Information, as that term are used in the Confidentiality Agreements in use in this proceeding. The answer to this interrogatory will be made available for inspection at The Radey Law Firm located at 301 South Bronough Street, Suite 200, Tallahassee, Florida 32301, provided the reviewing party has executed the Confidentiality Agreement and remains in compliance with the requirements of the Confidentiality Agreement associated with the review of Highly Sensitive Information.

QUESTION:
Please refer to Witness Spoor's testimony, pp. 21-22

a. Please explain FPL's strategy or approach for determining when to replace a 500kV transmission structure with a galvanized steel pole.

b. Please provide a spreadsheet containing the number of actual or planned 500kV transmission structure replacements each year 2019-2023.

c. Please provide typical unit costs for 500kV transmission structure replacements.

RESPONSE:
Subject to and without waiving FPL's specific objections filed on May 24th, 2021 and general objections filed contemporaneously with this response, FPL responds as follows:

a) As explained in FPL witness Spoor's direct testimony, FPL's strategy for replacing the existing 500kV structures is a combination of facilities/system assessments and the age of the 500kV transmission structures as they are nearing end of useful life. FPL's approach for replacing 500kV structures centers around overall system reliability, stability, and resiliency of the electric grid for the state of Florida. The approach and schedule also consider efficiencies and minimizing customer impacts, such as opportunities to perform work on co-located transmission lines and equipment within the same corridor. The majority of this project is the replacement of wood poles with either galvanized steel or concrete poles.

Facilities/system assessments are consistent with FPL's approved inspection plans, specifically the Transmission Inspection Program which has been part of FPL's storm hardening plan and was included as part of FPL's 2020-2029 SPP which was approved by Commission Order No. PSC-2020-0293-AS-EI issued on August 28, 2020, in Docket No. 20200071. FPL performs annual visual inspections and cyclical climbing or bucket inspections on its transmission structures, including those on the 500kV system. In addition to the poles/structures being inspected, the condition of various transmission pole/structure components are assessed, including attachments, insulators, cross-arms, cross-braces, foundations, bolts, conductors, overhead ground wires ("OHGW"), guy wires, anchors, and bonding.

b)

	Actual 2019	Actual 2020	Actual/Estimated 2021	Estimated 2022	Estimated 2023
500kV transmission structure[1]	80	428	1,506	820	497

c) The Cost for replacing a 500kV transmission structure can vary, but typically the cost for a tangent structure can range betwee [redacted] per structure.

[1] Estimates could vary based on a number of factors, including, but not limited to: permitting, easement issues, change in scope; resource constraints, and/or extreme weather.

QUESTION:
Please refer to Witness Spoor's testimony, p. 39, lines 16-19.

a. Please provide the expected improvements in SAIDI and SAIFI each year 2019-2023 from other various distribution reliability initiatives such as hand-hole and pad-mount transformer and submarine cable replacements.

b. Please provide a benefit/cost analysis demonstrating that the benefits from other various distribution reliability initiatives such as hand-hole and pad-mount transformer and submarine cable replacements exceed the costs for FPL's customers.

RESPONSE:
Subject to and without waiving FPL's specific objections filed on May 24th, 2021 and general objections filed contemporaneously with this response, FPL responds as follows:

The programs identified in this question are inspection based cyclical programs utilized to ensure the safe and reliable operations of the electric grid and associated infrastructure is identified for replacement due to damage or as it is nearing end of useful life.

a. Refer to FPL's response to Vote Solar/CLEO's First Set of Interrogatories, No. 84.

b. Refer to FPL's response to Vote Solar/CLEO's First Set of Interrogatories, No. 86a.