Stephanie A. Cuello
SENIOR COUNSEL

April 1, 2024

VIA ELECTRONIC FILING

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

Re: *Environmental Cost Recovery Clause; Docket No. 20240007-EI*

Dear Mr. Teitzman:

On behalf of Duke Energy Florida, LLC ("DEF"), please find enclosed for electronic filing in the above-referenced docket, DEF's 2023 Final True-Up Report. The filing includes the following:

- DEF's Petition for Approval of Environmental Cost Recovery Final True-Up for the period January 2023 to December 2023 and Approval of New Project for Recovery;
- Direct Testimony of Gary P. Dean and Exhibit No. (GPD-1);
- Direct Testimony of Eric Szkolnyj;
- Direct Testimony of Reggie Anderson; and
- Direct Testimony of Patricia West and Exhibit No. ___ (PQW-1).

Thank you for your assistance in this matter and if you have any questions, please feel free to contact me at (850) 521-1425.

Sincerely,

/s/ Stephanie A. Cuello

Stephanie A. Cuello

SAC/mw
Enclosures

106 East College Avenue, Suite 800, Tallahassee, FL 32301 ▪ Phone: 850.521.1425
▪ Email: stephanie.cuello@duke-energy.com

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental Cost Recovery Clause	Docket No. 20240007-EI
	Filed: April 1, 2024

DUKE ENERGY FLORIDA'S PETITION FOR APPROVAL OF ENVIRONMENTAL COST RECOVERY CLAUSE FINAL TRUE-UP FOR THE PERIOD JANUARY 2023 - DECEMBER 2023 AND APPROVAL OF NEW PROJECT FOR RECOVERY

Duke Energy Florida, LLC ("DEF" or "the Company"), hereby petitions for approval of DEF's final end-of-the period Environmental Cost Recovery Clause ("ECRC") True-Up amount of an under-recovery of $1,542,767, and an over-recovery of $1,548,518 as the adjusted net true-up for the period January 2023 through December 2023, and for approval of a new environmental compliance project for recovery through the ECRC. In support of this Petition, DEF states:

1. The actual end-of-period ECRC true-up under-recovery amount of $1,542,767 for the period January 2023 through December 2023 was calculated in accordance with the methodology set forth in Form 42-2A of Exhibit No. (GPD-1) accompanying the direct testimony of DEF witness Gary P. Dean, which is being filed together with this Petition and incorporated herein. Additional cost information for specific ECRC programs for the period January 2023 through December 2023 are presented in the direct testimonies of Reginald Anderson, Eric Szkolnyj, and Patricia West filed with this Petition and incorporated herein.

2. In Order No. PSC-2023-0344-FOF-EI, the Commission approved an under-recovery of $3,091,285 as the actual/estimated ECRC true-up for the period January 2023 through December 2023.

3. As reflected on Form 42-1A, Line 3, of Exhibit No. (GPD-1) to Mr. Dean's testimony, the adjusted net true-up for the period January 2023 through December 2023 is an over-recovery of $1,548,518, which is the difference between the actual true-up under-recovery of $1,542,767 and the actual/estimate true-up under-recovery of $3,091,285.

Request for Approval of New Project for ECRC Recovery

4. DEF also seeks Commission approval of the following new environmental project for cost recovery in the above-referenced on-going docket:

Citrus Combined Cycle Water Treatment System

5. Rule 62-520.420, Florida Administrative Code (F.A.C.) establishes standards for discharges into Class G-I and G-II Ground Water, including compliance with the ground water standard for Manganese of 0.160 mg/L as implemented in Attachment H of Conditions of Certification PA 77-09, which authorizes discharge of the Industrial Wastewater ("IWW") generated by the station into a percolation pond system. The authorization includes ground water monitoring required to comply with the rule.

6. On January 10, 2023, the Florida Department of Environmental Protection ("FDEP") issued Administrative Order AO-052SWD22 ("AO") to provide an interim limit and compliance schedule to address exceedances of the Manganese ground water standard following the February 7, 2023 amendment of the Attachment H which designated compliance wells and implemented a site-specific manganese ground water standard based on background conditions. The AO requires the station to be in compliance with the standard by January 10, 2026, 3 years from issuance of the AO. The 2nd Quarter 2023 Progress Report submitted to FDEP on July 13, 2023, as required by the AO, indicated that DEF would be pursuing the design of a permanent manganese reduction solution for the site and expected to have a concept design completed by the

end of 3rd Quarter 2023. The concept design for the Citrus Combined Cycle Water Treatment System was completed as scheduled and a meeting was conducted with FDEP on November 13, 2023, to discuss permitting of the project by amending Attachment H of the Conditions of Certification.

7. To comply, DEF will construct and operate a Water Treatment System to remove manganese and other contaminants from the station's filter backwash, with the treated water being reused in the service water system, and the solids being disposed of at the Crystal River Energy Complex landfill.

8. Costs for the Water Treatment System equipment and installation are yet to be determined. After the project goes in-service, DEF will be required to perform annual maintenance and conduct annual compliance tests to demonstrate continued compliance with the Regulation. Annual O&M costs after the project is compete are yet to be determined. DEF will include the 2024 and forward capital and O&M cost estimates for this project in the 2024 Actual/Estimated Filing and 2025 Projection Filing, to be filed with the Commission on July 26, 2024, and August 30, 2024, respectively.

9. The proposed Water Treatment System compliance activities associated with the standard merit ECRC cost recovery under Order No. PSC-94-0044-FOF-EI. All costs associated with the project will be prudently incurred after April 13, 1993. This activity is legally required to comply with the requirements of Administrative Order AO-052SWD22 during its three-year duration and ultimately to comply with Rule 62-520.420. The need to engage in such activities has been triggered after the Company’s last rate case and are not recovered through base rates or through any other mechanism.

WHEREFORE, DEF respectfully requests that the Commission approve the Company's final 2023 end-of-period Environmental Cost Recovery True-Up amount of an under-recovery amount of $1,542,767, and an over-recovery of $1,548,518 as the adjusted net true-up for the period January 2023 through December 2023 and approve the new Citrus Combined Cycle Water Treatment System Program for ECRC Recovery.

RESPECTFULLY SUBMITTED this 1st day of April, 2024.

/s/ Stephanie A. Cuello
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Attorneys for Duke Energy Florida, LLC

CERTIFICATE OF SERVICE

Docket No. 20240007-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 1st day of April, 2024.

/s/ Stephanie A. Cuello
Attorney

Adria Harper / Jacob Imig / Saad Farooqi Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 aharper@psc.state.fl.us jimig@psc.state.fl.us sfarooqi@psc.state.fl.us J. Wahlen / M. Means / V. Ponder Ausley McMullen Tampa Electric Company P.O. Box 391 Tallahassee, FL 32302 jwahlen@ausley.com mmeans@ausley.com vponder@ausley.com Jon C. Moyle, Jr. Moyle Law Firm, P.A. 118 North Gadsden Street Tallahassee, FL 32301 jmoyle@moylelaw.com mqualls@moylelaw.com Maria Jose Moncada / Joel Baker Florida Power & Light Company 700 Universe Boulevard (LAW/JB) Juno Beach, FL 33408-0420 maria.moncada@fpl.com joel.baker@fpl.com	W. Trierweiler / P. Christensen / C. Rehwinkel / M. Wessling / O. Ponce / A. Watrous Office of Public Counsel c/o The Florida Legislature 111 West Madison Street, Room 812 Tallahassee, FL 32399-1400 christensen.patty@leg.state.fl.us rehwinkel.charles@leg.state.fl.us wessling.mary@leg.state.fl.us ponce.octavio@leg.state.fl.us watrous.austin@leg.state.fl.us Paula K. Brown Tampa Electric Company Regulatory Affairs P.O. Box 111 Tampa, FL 33601 regdept@tecoenergy.com Kenneth Hoffman Florida Power & Light Company 134 W. Jefferson Street Tallahassee, FL 32301-1713 ken.hoffman@fpl.com James W. Brew / Laura Wynn Baker / Sarah B. Newman Stone Mattheis Xenopoulos & Brew, P.C. PCS Phosphate –White Springs 1025 Thomas Jefferson Street, NW Eighth Floor, West Tower Washington, DC 20007 jbrew@smxblaw.com lwb@smxblaw.com sbn@smxblaw.com Peter J. Mattheis / Michael K. Lavanga / Joseph R. Briscar Stone Mattheis Xenopoulos & Brew, PC NUCOR 1025 Thomas Jefferson Street, NW Eighth Floor, West Tower Washington, DC 20007 pjm@smxblaw.com mkl@smxblaw.com jrb@smxblaw.com

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

GARY P. DEAN

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20240007-EI

April 1, 2024

Q. Please state your name and business address.

A. My name is Gary P. Dean. My business address is 299 First Avenue North, St. Petersburg, FL 33701.

Q. By whom are you employed and in what capacity?

A. I am employed by Duke Energy Florida, LLC ("DEF" or the "Company"), as Rates and Regulatory Strategy Manager.

Q. What are your responsibilities in that position?

A. I am responsible for regulatory planning and cost recovery for DEF. These responsibilities include completion of regulatory financial reports and analysis of state, federal and local regulations, and their impacts on DEF. In this capacity, I am responsible for DEF's Final True-Up, Actual/Estimated Projection and Projection Filings in the Fuel Adjustment Clause, Capacity Cost Recovery Clause, and Environmental Cost Recovery Clause ("ECRC").

Q. Please describe your educational background and professional experience.

A. I joined DEF on April 27, 2020 as the Rates and Regulatory Strategy Manager. Prior to working at DEF, I was the Senior Manager, Optimization for Chesapeake Utilities Corporation ("CUC"). In this role, I was responsible for all pricing related to the company's natural gas retail business. Prior to working at CUC, I was the General Manager, Electric Operations for South Jersey Energy Company ("SJEC"). In that capacity I held P&L and strategic development responsibility for the company's electric retail book. Prior to working at SJEC I had various positions associated with rates and regulatory affairs. In these positions I was responsible for all rate and regulatory matters, including tariff and rate design, financial modeling, and analysis, and ensuring accurate rates for billing. I received a Master of Business Administration from Rutgers University and a Bachelor of Science degree in Commerce and Engineering, majoring in Finance, from Drexel University.

Q. Have you previously filed testimony before this Commission in connection with DEF's Environmental Cost Recovery Clause ("ECRC")?

A. Yes.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present for Commission review and approval DEF's actual true-up costs associated with environmental compliance activities for the period January 2023 - December 2023.

Q. Are you sponsoring any exhibits in support of your testimony?

A. Yes. I am sponsoring Exhibit No. (GPD-1), that consists of nine forms.

Exhibit No. (GPD-1) consists of the following:

- Form 42-1A: Final true-up for the period January 2023 - December 2023;
- Form 42-2A: Final true-up calculation for the period;
- Form 42-3A: Calculation of the interest provision for the period;
- Form 42-4A: Calculation of variances between actual and actual/estimated costs for O&M Activities;
- Form 42-5A: Summary of actual monthly costs for the period for O&M Activities;
- Form 42-6A: Calculation of variances between actual and actual/estimated costs for Capital Investment Projects;
- Form 42-7A: Summary of actual monthly costs for the period for Capital Investment Projects;
- Form 42-8A, pages 1-10: Calculation of return on capital investment, depreciation expense and property tax expense for each project recovered through the ECRC; and
- Form 42-9A: DEF's capital structure and cost rates.

These exhibits were developed under my supervision, and they are true and accurate to the best of my knowledge and belief.

Q. What is the source of the data that you will present in testimony and exhibits in this proceeding?

A. Unless otherwise indicated, the actual data is taken from the books and records of the Company. The books and records are kept in the regular course of DEF's business in accordance with generally accepted accounting principles and practices, and provisions of the Uniform System of Accounts as prescribed by the Federal Energy Regulatory Commission, and any accounting rules and orders established by this Commission. The Company relies on the information included in this testimony and exhibits in the conduct of its affairs.

Q. What is the final true-up amount DEF is requesting for the period January 2023 - December 2023?

A. DEF requests approval of an actual under-recovery amount of $1,542,767 for the year ending December 31, 2023. This amount is shown on Form 42-1A, Line 1.

Q. What is the net true-up amount DEF is requesting for the period January 2023 - December 2023 to be applied in the calculation of the environmental cost recovery factors to be refunded/recovered in the next projection period?

A. DEF requests approval of an adjusted net true-up over-recovery amount of $1,548,518 for the period January 2023 - December 2023 reflected on Line 3 of Form 42-1A. This amount is the difference between an actual under-recovery amount of $1,542,767 reflected on Line 1 and an actual/estimated under-recovery of $3,091,285 reflected on Line 2 for the period January 2023 - December 2023, as approved in Order PSC-2023-0344-FOF-EI.

Q. Are all costs listed on Forms 42-1A through 42-8A attributable to environmental compliance projects approved by the Commission?

A. Yes.

Q. How did actual O&M expenditures for January 2023 - December 2023 compare with DEF's actual/estimated projections as presented in previous testimony and exhibits?

A. Form 42-4A shows a total O&M project variance of $1,392,449 or 15% lower than projected. Individual O&M project variances are on Form 42-4A.

Q. How did actual capital recoverable expenditures for January 2023 - December 2023 compare with DEF's estimated/actual projections as presented in previous testimony and exhibits?

A. Form 42-6A shows a total capital investment recoverable cost variance of $23,440 or 0.5% higher than projected. Individual project variances are on Form 42-6A. Return on capital investment, depreciation, and property taxes for each project for the period are provided on Form 42-8A, pages 1-10.

Q. Please explain the variance between actual project expenditures and the Actual/Estimated projections for the SO_2/NOx Emissions Allowance (Project 5).

A. The O&M variance is $2,069 or 100% lower than projected. This is due to lower than expected SO_2 Allowance expense.

Q. Does this conclude your testimony?

A. Yes.

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Commission Forms 42-1A Through 42-9A

January 2023 - December 2023
Final True-Up
Docket No. 20240007-EI

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023
(in Dollars)

Form 42-1A

Docket No. 20240007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. (GPD-1)

Line		Period Amount
1	Over/(Under) Recovery for the Period January 2023 - December 2023 (Form 42-2A, Line 5 + 6 + 10)	$ (1,542,767)
2	Actual/Estimated True-Up Amount Approved for the Period January 2023 - December 2023 (Order No. PSC-2023-0344-FOF-EI)	(3,091,285)
3	Final True-Up Amount to be Refunded/(Recovered) in the Projection Period January 2025 to December 2025 (Lines 1 - 2)	$ 1,548,518

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023

End-of-Period True-Up Amount
(in Dollars)

Line	Description		Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	ECRC Revenues (net of Revenue Taxes)		$649,956	$543,425	$629,244	$650,637	$665,437	$802,272	$869,737	$911,095	$900,427	$736,234	$594,425	$587,899	8,540,790
2	True-Up Provision (Order No. PSC-2022-0424-FOF-EI)	1,698,006	141,501	141,501	141,501	141,501	141,501	141,501	141,501	141,501	141,501	141,501	141,501	141,501	1,698,006
3	ECRC Revenues Applicable to Period (Lines 1 + 2)		$791,456	684,926	770,745	792,137	806,938	943,773	1,011,237	1,052,596	1,041,927	877,735	735,925	729,399	10,238,796
4	Jurisdictional ECRC Costs														
	a. O & M Activities (Form 42-5A, Line 9)		($36,374)	$154,256	$1,392,207	$1,138,103	$88,324	$717,839	$1,246,211	$853,929	$746,733	($29,882)	$669,994	$348,536	$7,289,876
	b. Capital Investment Projects (Form 42-7A, Line 9)		379,154	378,773	376,342	373,884	374,249	373,407	371,114	371,449	373,949	377,225	375,421	377,710	4,502,677
	c. Other (A)		0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Total Jurisdictional ECRC Costs		$342,780	$533,029	$1,768,549	$1,511,987	$462,573	$1,091,246	$1,617,325	$1,225,378	$1,120,682	$347,343	$1,045,415	$726,246	$11,792,553
5	Over/(Under) Recovery (Line 3 - Line 4d)		$448,676	$151,897	($997,804)	($719,849)	$344,365	($147,474)	($606,087)	($172,782)	($78,755)	$530,392	($309,489)	$3,153	($1,553,757)
6	Interest Provision (Form 42-3A, Line 10)		8,082	8,986	7,019	3,202	1,917	1,759	(456)	(2,836)	(4,041)	(3,675)	(3,821)	(5,146)	10,990
7	Beginning Balance True-Up & Interest Provision		1,698,006	2,013,264	2,032,647	900,361	42,213	246,995	(40,220)	(788,264)	(1,105,383)	(1,329,680)	(944,463)	(1,399,274)	1,698,006
	a. Deferred True-Up - January 2022 - December 2022 (2022 TU filing dated March 31, 2023)		309,443	309,443	309,443	309,443	309,443	309,443	309,443	309,443	309,443	309,443	309,443	309,443	309,443
8	True-Up Collected/(Refunded) (see Line 2)		(141,501)	(141,501)	(141,501)	(141,501)	(141,501)	(141,501)	(141,501)	(141,501)	(141,501)	(141,501)	(141,501)	(141,501)	(1,698,006)
9	End of Period Total True-Up (Lines 5+6+7+7a+8)		$2,322,707	$2,342,090	$1,209,804	$351,657	$556,438	$269,223	($478,821)	($795,940)	($1,020,237)	($635,020)	($1,089,831)	($1,233,324)	($1,233,324)
10	Adjustments to Period Total True-Up Including Interest		0	0	0	0	0	0	0	0	0	0	0	0	0
11	End of Period Total True-Up Over/(Under) (Lines 9 + 10)		$2,322,707	$2,342,090	$1,209,804	$351,657	$556,438	$269,223	(478,821)	($795,940)	($1,020,237)	($635,020)	($1,089,831)	($1,233,324)	($1,233,324)

Notes:
(A) N/A

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023

Interest Provision
(in Dollars)

Line	Description	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	Beginning True-Up Amount (Form 42-2A, Line 7 + 7a + 10)	$2,007,449	$2,322,707	$2,342,090	$1,209,804	$351,657	$556,438	$269,223	($478,821)	($795,940)	($1,020,237)	($635,020)	($1,089,831)	
2	Ending True-Up Amount Before Interest (Line 1 + Form 42-2A, Lines 5 + 8)	2,314,625	2,333,104	1,202,785	348,455	554,521	267,464	(478,365)	(793,104)	(1,016,196)	(631,345)	(1,086,010)	(1,228,178)	
3	Total of Beginning & Ending True-Up (Lines 1 + 2)	4,322,075	4,655,811	3,544,875	1,558,259	906,177	823,901	(209,143)	(1,271,925)	(1,812,136)	(1,651,582)	(1,721,030)	(2,318,009)	
4	Average True-Up Amount (Line 3 x 1/2)	2,161,038	2,327,906	1,772,438	779,130	453,089	411,951	(104,572)	(635,963)	(906,068)	(825,791)	(860,515)	(1,159,005)	
5	Interest Rate (First Business Day of Current Month)	4.37%	4.61%	4.66%	4.85%	5.02%	5.14%	5.11%	5.35%	5.35%	5.36%	5.32%	5.33%	
6	Interest Rate (First Business Day of Subsequent Month)	4.61%	4.66%	4.85%	5.02%	5.14%	5.11%	5.35%	5.35%	5.36%	5.32%	5.33%	5.32%	
7	Total of Beginning & Ending Interest Rates (Lines 5 + 6)	8.98%	9.27%	9.51%	9.87%	10.16%	10.25%	10.46%	10.70%	10.71%	10.68%	10.65%	10.65%	
8	Average Interest Rate (Line 7 x 1/2)	4.490%	4.635%	4.755%	4.935%	5.080%	5.125%	5.230%	5.350%	5.355%	5.340%	5.325%	5.325%	
9	Monthly Average Interest Rate (Line 8 x 1/12)	0.374%	0.386%	0.396%	0.411%	0.423%	0.427%	0.436%	0.446%	0.446%	0.445%	0.444%	0.444%	
10	Interest Provision for the Month (Line 4 x Line 9)	$8,082	$8,986	$7,019	$3,202	$1,917	$1,759	($456)	($2,836)	($4,041)	($3,675)	($3,821)	($5,146)	$10,990

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023

Variance Report of O&M Activities
(In Dollars)

Line		(1) YTD Actual	(2) Actual/ Estimated	(3) Variance Amount	(4) Variance Percent
1	Description of O&M Activities - System				
1	Transmission Substation Environmental Investigation, Remediation, and Pollution Prevention	$0	$0	$0	0%
1a	Distribution Substation Environmental Investigation, Remediation, and Pollution Prevention	0	0	0	0%
2	Distribution System Environmental Investigation, Remediation, and Pollution Prevention	0	0	0	0%
3	Pipeline Integrity Management - Bartow /Anclote Pipeline - Intm	0	0	0	0%
4	Above Ground Tank Secondary Containment	0	0	0	0%
5	SO2/NOx Emissions Allowances - Energy	0	2,069	(2,069)	-100%
6	Phase II Cooling Water Intake 316(b) - Base	264,541	294,886	(30,345)	-10%
6a	Phase II Cooling Water Intake 316(b) - Intm	0	62,500	(62,500)	-100%
7.2	CAIR/CAMR - Peaking - Demand	0	0	0	0%
7.4	CAIR/CAMR Crystal River - Base	0	0	0	0%
7.4	CAIR/CAMR Crystal River - Energy	6,875,420	7,963,242	(1,087,822)	-14%
7.4	CAIR/CAMR Crystal River - A&G	0	0	0	0%
7.4	CAIR/CAMR Crystal River - Conditions of Certification - Energy	0	0	0	0%
7.5	Best Available Retrofit Technology (BART) - Energy	0	0	0	0%
7.6	National Emission Standards for Hazardous Air Pollutants (NESHAP) - Base	42,315	61,177	(18,862)	-31%
8	Arsenic Groundwater Standard - Base	63,327	90,075	(26,747)	-30%
9	Sea Turtle - Coastal Street Lighting - Distrib	0	0	0	0%
11	Modular Cooling Towers - Base	0	0	0	0%
12	Greenhouse Gas Inventory and Reporting - Energy	0	0	0	0%
13	Mercury Total Daily Maximum Loads Monitoring - Energy	0	0	0	0%
14	Hazardous Air Pollutants (HAPs) ICR Program - Energy	0	0	0	0%
15	Effluent Limitation Guidelines ICR Program - Energy	0	0	0	0%
15.1	Effluent Limitation Guidelines Program CRN - Energy	0	0	0	0%
16	National Pollutant Discharge Elimination System (NPDES) - Energy	43,377	46,410	(3,033)	-7%
17	Mercury & Air Toxic Standards (MATS) CR4 & CR5 - Energy	65,587	194,912	(129,326)	-66%
17.1	Mercury & Air Toxic Standards (MATS) Anclote Gas Conversion - Energy	0	0	0	0%
17.2	Mercury & Air Toxic Standards (MATS) CR1 & CR2 - Energy	0	0	0	0%
18	Coal Combustion Residual (CCR) Rule - Energy	393,010	424,755	(31,745)	-7%
2	Total O&M Activities - Recoverable Costs	$7,747,577	$9,140,026	($1,392,449)	-15%
3	Recoverable Costs Allocated to Energy	7,377,393	8,631,388	(1,253,995)	-15%
4	Recoverable Costs Allocated to Demand	370,184	508,638	(138,454)	-27%

Notes:

Column (1) End of Period Totals on Form 42-5A
Column (2) 2023 Actual/Estimated Filing (7/28/2023)
Column (3) = Column (1) - Column (2)
Column (4) = Column (3) / Column (2)

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023

O&M Activities
(in Dollars)

Line	Description	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	Description of O&M Activities													
1	Transmission Substation Environmental Investigation, Remediation, and Pollution Prevention	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
1a	Distribution Substation Environmental Investigation, Remediation, and Pollution Prevention	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Distribution System Environmental Investigation, Remediation, and Pollution Prevention	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Pipeline Integrity Management - Bartow/Anclote Pipeline - Intm	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Above Ground Tank Secondary Containment - Peaking	0	0	0	0	0	0	0	0	0	0	0	0	0
5	SO2/NOx Emissions Allowances - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Phase II Cooling Water Intake 316(b) - Base	74,930	26,448	8,431	20,466	26,843	14,535	22,206	10,442	3,575	4,556	2,263	49,846	264,541
6a	Phase II Cooling Water Intake 316(b) - Intm	0	0	0	0	0	0	0	0	0	0	0	0	0
7.2	CAIR/CAMR - Peaking	0	0	0	0	0	0	0	0	0	0	0	0	0
7.4	CAIR/CAMR Crystal River - Base	0	0	0	0	0	0	0	0	0	0	0	0	0
7.4	CAIR/CAMR Crystal River - Energy	(131,246)	62,280	1,403,924	1,078,081	20,030	699,264	1,296,777	874,896	708,162	(62,283)	651,800	273,736	6,875,420
7.4	CAIR/CAMR Crystal River - A&G	0	0	0	0	0	0	0	0	0	0	0	0	0
7.4	CAIR/CAMR Crystal River - Conditions of Certification - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
7.5	Best Available Retrofit Technology (BART) - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
7.6	National Emission Standards for Hazardous Air Pollutants (NESHAP) - Base	0	0	0	0	0	41,177	1,138	0	0	0	0	0	42,315
8	Arsenic Groundwater Standard - Base	469	(271)	13,450	(1,488)	12,245	6,940	6,909	11,201	12,362	0	1,199	312	63,327
9	Sea Turtle - Coastal Street Lighting - Distrib	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Modular Cooling Towers - Base	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Greenhouse Gas Inventory and Reporting - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Mercury Total Daily Maximum Loads Monitoring - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Hazardous Air Pollutants (HAPs) ICR Program - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Effluent Limitation Guidelines ICR Program - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
15.1	Effluent Limitation Guidelines ICR Program CRN - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
16	National Pollutant Discharge Elimination System (NPDES) - Energy	0	9,530	7,012	5,556	0	(551)	0	0	6,980	5,696	(389)	9,543	43,377
17	Mercury & Air Toxic Standards (MATS) CR4 & CR5 - Energy	0	0	0	64,909	11	0	0	0	0	2,291	(1,624)	0	65,587
17.1	Mercury & Air Toxic Standards (MATS) Anclote Gas Conversion - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
17.2	Mercury & Air Toxic Standards (MATS) CR1 & CR2 - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Coal Combustion Residual (CCR) Rule - Energy	18,094	60,713	23,054	38,748	32,889	(49)	29,519	34,327	64,982	18,871	49,345	22,517	393,010
2	Total of O&M Activities	($37,754)	$158,700	$1,455,871	$1,206,271	$92,018	$761,316	$1,356,548	$930,866	$796,060	($30,869)	$702,594	$355,954	$7,747,577
3	Recoverable Costs Allocated to Energy	(113,153)	132,523	1,433,991	1,187,294	52,929	698,664	1,326,296	909,223	780,123	(35,425)	699,132	305,796	7,377,393
4	Recoverable Costs Allocated to Demand - Transm	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recoverable Costs Allocated to Demand - Distrib	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recoverable Costs Allocated to Demand - Prod-Base	75,399	26,177	21,881	18,978	39,089	62,652	30,252	21,643	15,937	4,556	3,462	50,158	370,184
	Recoverable Costs Allocated to Demand - Prod-Intm	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recoverable Costs Allocated to Demand - Prod-Peaking	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recoverable Costs Allocated to Demand - A&G	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Retail Energy Jurisdictional Factor	0.97050	0.97160	0.95600	0.94300	0.94940	0.94010	0.91740	0.91600	0.93730	0.96880	0.95350	0.98000	
6	Retail Transmission Demand Jurisdictional Factor	0.72042	0.72042	0.72042	0.72042	0.72042	0.72042	0.72042	0.72042	0.72042	0.72042	0.72042	0.72042	
	Retail Distribution Demand Jurisdictional Factor	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	
	Retail Production Demand Jurisdictional Factor - Base	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	
	Retail Production Demand Jurisdictional Factor - Intm	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	
	Retail Production Demand Jurisdictional Factor - Peaking	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	
	Retail Production Demand Jurisdictional Factor - A&G	0.96779	0.96779	0.96779	0.96779	0.96779	0.96779	0.96779	0.96779	0.96779	0.96779	0.96779	0.96779	
7	Jurisdictional Energy Recoverable Costs (A)	(109,815)	128,759	1,370,895	1,119,618	50,251	656,814	1,216,744	832,848	731,210	(34,319)	666,622	299,680	6,929,307
8	Jurisdictional Demand Recoverable Costs - Transm (B)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Jurisdictional Demand Recoverable Costs - Distrib (B)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Jurisdictional Demand Recoverable Costs - Prod-Base (B)	73,441	25,497	21,312	18,485	38,073	61,025	29,467	21,081	15,523	4,437	3,372	48,856	360,569
	Jurisdictional Demand Recoverable Costs - Prod-Intm (B)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Jurisdictional Demand Recoverable Costs - Prod-Peaking (B)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Jurisdictional Demand Recoverable Costs - A&G (B)	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total Jurisdictional Recoverable Costs for O&M Activities (Lines 7 + 8)	($36,374)	$154,256	$1,392,207	$1,138,103	$88,324	$717,839	$1,246,211	$853,929	$746,733	($29,882)	$669,994	$348,536	$7,289,876

Notes:
(A) Line 3 x Line 5
(B) Line 4 x Line 6

DUKE ENERGY FLORIDA, LLC
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Variance Report of Capital Investment Activities
(In Dollars)

Line			(1) Total Year Actual	(2) Actual/ Estimated	(3) Variance Amount	(4) Variance Percent
1	Description of Capital Investment Activities					
	3.1	Pipeline Integrity Management - Bartow/Anclote Pipeline	$0	$0	$0	0%
	4.x	Above Ground Tank Secondary Containment	0	0	0	0%
	5	SO2/NOx Emissions Allowances	257,436	255,793	1,643	1%
	6	Phase II Cooling Water Intake 316(b)	1,519,827	1,518,154	1,673	0%
	7.x	CAIR/CAMR	445,777	420,533	25,244	6%
	9	Sea Turtle - Coastal Street Lighting	0	0	0	0%
	10.x	Underground Storage Tanks	0	0	0	0%
	11	Modular Cooling Towers	0	0	0	0%
	11.1	Crystal River Thermal Discharge Compliance Project	0	0	0	0%
	15.1	Effluent Limitation Guidelines CRN (ELG)	315,626	314,489	1,137	0%
	16	National Pollutant Discharge Elimination System (NPDES)	1,224,016	1,233,676	(9,660)	-1%
	17x	Mercury & Air Toxics Standards (MATS)	416,931	415,487	1,444	0%
	18	Coal Combustion Residual (CCR) Rule	530,228	528,269	1,959	0%
2	Total Capital Investment Activities - Recoverable Costs		$4,709,841	$4,686,401	$23,440	0.5%
3	Recoverable Costs Allocated to Energy		1,120,144	1,091,813	$28,331	3%
4	Recoverable Costs Allocated to Demand		$3,589,697	$3,594,588	($4,891)	0%

Notes:

Column (1) End of Period Totals on Form 42-7A
Column (2) 2023 Actual/Estimated Filing (7/28/2023)
Column (3) = Column (1) - Column (2)
Column (4) = Column (3) / Column (2)

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
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Capital Investment Projects-Recoverable Costs
(in Dollars)

Line		Description	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1		Description of Investment Projects (A)													
	3.1	Pipeline Integrity Management - Bartow/Anclote Pipeline - Intermediate	$0	$0	$0	$0	$0	$0	0	$0	$0	$0	$0	$0	$0
	4.1	Above Ground Tank Secondary Containment - Peaking	0	0	0	0	0	0	0	0	0	0	0	0	0
	4.2	Above Ground Tank Secondary Containment - Base	0	0	0	0	0	0	0	0	0	0	0	0	0
	4.3	Above Ground Tank Secondary Containment - Intermediate	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	SO2/NOX Emissions Allowances - Energy	21,453	21,453	21,453	21,453	21,453	21,453	21,453	21,453	21,453	21,453	21,453	21,453	257,436
	6	Phase II Cooling Water Intake 316(b) - Base	128,178	127,878	127,471	127,153	126,869	126,585	126,302	126,018	125,735	125,452	125,168	124,884	1,517,693
	6.1	Phase II Cooling Water Intake 316(b) - Base - Bartow	0	0	0	0	0	0	0	0	253	556	634	691	2,134
	6.2	Phase II Cooling Water Intake 316(b) - Intermediate - Anclote	0	0	0	0	0	0	0	0	0	0	0	0	0
	7.1	CAIR/CAMR Anclote- Intermediate	0	0	0	0	0	0	0	0	0	0	0	0	0
	7.2	CAIR/CAMR - Peaking	0	0	0	0	0	0	0	0	0	0	0	0	0
	7.3	CAMR Crystal River - Base	0	0	0	0	0	0	0	0	0	0	0	0	0
	7.4	CAIR/CAMR Crystal River AFUDC - Base	0	0	0	0	0	0	0	0	0	0	0	0	0
	7.4	CAIR/CAMR Crystal River AFUDC - Energy	34,892	35,211	35,106	34,620	35,205	36,040	36,664	38,016	39,107	39,893	40,271	40,752	445,777
	7.5	Best Available Retrofit Technology (BART) - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
	9	Sea Turtle - Coastal Street Lighting -Distribution	0	0	0	0	0	0	0	0	0	0	0	0	0
	10.1	Underground Storage Tanks - Base	0	0	0	0	0	0	0	0	0	0	0	0	0
	10.2	Underground Storage Tanks - Intermediate	0	0	0	0	0	0	0	0	0	0	0	0	0
	11	Modular Cooling Towers - Base	0	0	0	0	0	0	0	0	0	0	0	0	0
	15.1	Effluent Limitation Guidelines CRN (RLG) - Base	26,701	26,628	26,556	26,483	26,412	26,339	26,267	26,194	26,121	26,050	25,977	25,898	315,626
	16	National Pollutant Discharge Elimination System (NPDES) - Intermediate	103,276	103,044	102,812	102,580	102,349	102,117	101,885	101,654	101,422	101,191	100,959	100,727	1,224,016
	17	Mercury & Air Toxic Standards (MATS) CR4 & CR5 - Energy	35,306	35,204	35,101	34,999	34,898	34,795	34,693	34,590	34,489	34,386	34,284	34,186	416,931
	17.1	Mercury & Air Toxic Standards (MATS) Anclote Gas Conversion - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
	17.2	Mercury & Air Toxic Standards (MATS) CR1 & CR2 - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
	18	Coal Combustion Residual (CCR) Rule - Demand	44,843	44,725	44,605	44,485	44,365	44,246	44,126	44,006	43,887	43,767	43,648	43,528	530,228
2		Total Investment Projects - Recoverable Costs	$394,649	$394,143	$393,104	$391,773	$391,551	$391,575	$391,390	$391,931	$392,467	$392,748	$392,394	$392,119	$4,709,841
3		Recoverable Costs Allocated to Energy	91,651	91,868	91,660	91,072	91,556	92,288	92,810	94,059	95,049	95,732	96,008	96,391	1,120,144
		Recoverable Costs Allocated to Distribution Demand	0	0	0	0	0	0	0	0	0	0	0	0	0
4		Recoverable Costs Allocated to Demand - Production - Base	199,722	199,231	198,632	198,121	197,646	197,170	196,695	196,218	195,996	195,825	195,427	195,001	2,365,681
		Recoverable Costs Allocated to Demand - Production - Intermediate	103,276	103,044	102,812	102,580	102,349	102,117	101,885	101,654	101,422	101,191	100,959	100,727	1,224,016
		Recoverable Costs Allocated to Demand - Production - Peaking	0	0	0	0	0	0	0	0	0	0	0	0	0
5		Retail Energy Jurisdictional Factor	0.97050	0.97160	0.95600	0.94300	0.94940	0.94010	0.91740	0.91600	0.93730	0.96880	0.95350	0.98000	
		Retail Distribution Demand Jurisdictional Factor	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	
6		Retail Demand Jurisdictional Factor - Production - Base	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	
		Retail Demand Jurisdictional Factor - Production - Intermediate	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	
		Retail Demand Jurisdictional Factor - Production - Peaking	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	
7		Jurisdictional Energy Recoverable Costs (B)	88,947	89,259	87,627	85,881	86,923	86,760	85,144	86,158	89,089	92,745	91,544	94,463	1,064,541
		Jurisdictional Demand Recoverable Costs - Distribution (B)	0	0	0	0	0	0	0	0	0	0	0	0	0
8		Jurisdictional Demand Recoverable Costs - Production - Base (C)	194,535	194,057	193,473	192,976	192,513	192,049	191,587	191,122	190,906	190,739	190,352	189,937	2,304,245
		Jurisdictional Demand Recoverable Costs - Production - Intermediate (C)	95,672	95,457	95,242	95,027	94,813	94,598	94,383	94,169	93,954	93,740	93,525	93,310	1,133,892
		Jurisdictional Demand Recoverable Costs - Production - Peaking (C)	0	0	0	0	0	0	0	0	0	0	0	0	0
9		Total Jurisdictional Recoverable Costs for Investment Projects (Lines 7 + 8)	$379,154	$378,773	$376,342	$373,884	$374,249	$373,407	$371,114	$371,449	$373,949	$377,225	$375,421	$377,710	$4,502,677

Notes:

(A) Each project's Total System Recoverable Expenses on Form 42-8A, Line 9; Form 42-8A, Line 5 for Projects 5 - Emission Allowances and Project 7. 4 - Reagents
(B) Line 3 x Line 5
(C) Line 4 x Line 6

DUKE ENERGY FLORIDA, LLC
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SO2 and NOx EMISSIONS ALLOWANCES - Energy (Project 5)
(in Dollars)

Line	Description		Beginning of Period Amount	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	Working Capital Dr (Cr)															
	a. 0158150 SO2 Emission Allowance Inventory		$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153
	b. 0254020 Auctioned SO2 Allowance		0	0	0	0	0	0	0	0	0	0	0	0	0	$0
	c. 0158170 NOx Emission Allowance Inventory		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Other (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Total Working Capital		$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153
3	Average Net Investment			$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	$3,210,153	
4	Return on Average Net Working Capital Balance (B)															
	a. Debt Component	1.86%		4,981	4,981	4,981	4,981	4,981	4,981	4,981	4,981	4,981	4,981	4,981	4,981	59,772
	b. Equity Component Grossed Up For Taxes	6.16%		16,472	16,472	16,472	16,472	16,472	16,472	16,472	16,472	16,472	16,472	16,472	16,472	197,664
5	Total Return Component (C)			$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	257,436
6	Expense Dr (Cr)															
	a. 0509030 SO_2 Allowance Expense			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. 0407426 Amortization Expense			0	0	0	0	0	0	0	0	0	0	0	0	0	0
	c. 0509212 NOx Allowance Expense			0	0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Other			0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Net Expense (D)			0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Total System Recoverable Expenses (Lines 5 + 7 + 8)			$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	$21,453	257,436
	a. Recoverable Costs Allocated to Energy			21,453	21,453	21,453	21,453	21,453	21,453	21,453	21,453	21,453	21,453	21,453	21,453	257,436
	b. Recoverable Costs Allocated to Demand			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0
9	Energy Jurisdictional Factor			0.97050	0.97160	0.95600	0.94300	0.94940	0.94010	0.91740	0.91600	0.93730	0.96880	0.95350	0.98000	
10	Demand Jurisdictional Factor			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
11	Retail Energy-Related Recoverable Costs (E)			$20,820	$20,844	$20,509	$20,230	$20,367	$20,168	$19,681	$19,651	$20,108	$20,784	$20,455	$21,024	244,641
12	Retail Demand-Related Recoverable Costs (F)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0
13	Total Jurisdictional Recoverable Costs (Lines 12 + 13)			$20,820	$20,844	$20,509	$20,230	$20,367	$20,168	$19,681	$19,651	$20,108	$20,784	$20,455	$21,024	$244,641

Notes:
(A) N/A
(B) Line 3 x 8.02% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.54% and statutory tax rate of 25.345% (inc tax multiplier = 1.3394950).
(C) Line 5 is reported on Capital Schedule
(D) Line 7 is reported on O&M Schedule
(E) Line 8a x Line 9
(F) Line 8b x Line 10

DUKE ENERGY FLORIDA, LLC
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Docket No. 20240007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. (GPD-1)
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Return on Capital Investments, Depreciation and Taxes
For Project: Phase II Cooling Water Intake 316(b) - Base (Project 6)
(in Dollars)

Line	Description		Beginning of Period Amount	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	Investments															
	a. Expenditures/Additions			$5,924	($16,170)	($5,349)	$0	$0	$0	$0	$0	$0	$0	$0	$0	($15,595)
	b. Clearings to Plant			5,924	(16,170)	(5,349)	0	0	0	0	0	0	0	0	0	
	c. Retirements			0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other (A)			0	0	0	0	0	0	0	0	0	0	0	0	
2	Plant-in-Service/Depreciation Base		$13,211,834	13,217,758	13,201,588	13,196,239	13,196,239	13,196,239	13,196,239	13,196,239	13,196,239	13,196,239	13,196,239	13,196,239	13,196,239	
3	Less: Accumulated Depreciation		(372,411)	(414,889)	(457,386)	(499,831)	(542,259)	(584,687)	(627,115)	(669,543)	(711,971)	(754,399)	(796,827)	(839,255)	(881,683)	
4	CWIP - Non-Interest Bearing		0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Net Investment (Lines 2 + 3 + 4)		$12,839,423	$12,802,869	$12,744,202	$12,696,408	$12,653,980	$12,611,552	$12,569,124	$12,526,696	$12,484,268	$12,441,840	$12,399,412	$12,356,984	$12,314,556	
6	Average Net Investment			$12,821,146	$12,773,535	$12,720,305	$12,675,194	$12,632,766	$12,590,338	$12,547,910	$12,505,482	$12,463,054	$12,420,626	$12,378,198	$12,335,770	
7	Return on Average Net Investment (B)															
	a. Debt Component	1.86%		19,894	19,820	19,738	19,668	19,602	19,536	19,470	19,404	19,339	19,273	19,207	19,141	234,092
	b. Equity Component Grossed Up For Taxes	6.16%		65,790	65,545	65,272	65,041	64,823	64,605	64,388	64,170	63,952	63,735	63,517	63,299	774,137
	c. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses															
	a. Depreciation (C)	3.8582%		42,478	42,497	42,445	42,428	42,428	42,428	42,428	42,428	42,428	42,428	42,428	42,428	509,272
	b. Amortization			0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	d. Property Taxes (D)	0.0014%		16	16	16	16	16	16	16	16	16	16	16	16	192
	e. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)			$128,178	$127,878	$127,471	$127,153	$126,869	$126,585	$126,302	$126,018	$125,735	$125,452	$125,168	$124,884	1,517,693
	a. Recoverable Costs Allocated to Energy			0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand			$128,178	$127,878	$127,471	$127,153	$126,869	$126,585	$126,302	$126,018	$125,735	$125,452	$125,168	$124,884	1,517,693
10	Energy Jurisdictional Factor			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
11	Demand Jurisdictional Factor - Production (Base)			0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	
12	Retail Energy-Related Recoverable Costs (E)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Retail Demand-Related Recoverable Costs (F)			124,849	124,557	124,161	123,851	123,574	123,298	123,022	122,745	122,470	122,194	121,917	121,641	1,478,279
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)			$124,849	$124,557	$124,161	$123,851	$123,574	$123,298	$123,022	$122,745	$122,470	$122,194	$121,917	$121,641	$1,478,279

Notes:
(A) N/A
(B) Line 6 x 8.02% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.54% and statutory tax rate of 25.345% (inc tax multiplier = 1.3394950).
(C) Line 2 x rate x 1/12. Depreciation rate based on approved rates in Order PSC-2021-0202-AS-EI.
(D) Line 2 x rate x 1/12. Based on 2023 Effective Tax Rate on original cost.
(E) Line 9a x Line 10
(F) Line 9b x Line 11

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023

Docket No. 20240007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. (GPD-1)
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Return on Capital Investments, Depreciation and Taxes
For Project: Phase II Cooling Water Intake 316(b) - Base - Bartow (Project 6.1)
(in Dollars)

Line	Description		Beginning of Period Amount	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	Investments															
	a. Expenditures/Additions			$0	$0	$0	$0	$0	$0	$0	$0	$75,595	$15,195	$8,122	$8,979	$107,892
	b. Clearings to Plant			0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements			0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other (A)			0	0	0	0	0	0	0	0	0	0	0	0	
2	Plant-in-Service/Depreciation Base		$0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Less: Accumulated Depreciation		0	0	0	0	0	0	0	0	0	0	0	0	0	
4	CWIP - Non-Interest Bearing		0	0	0	0	0	0	0	0	0	75,595	90,791	98,913	107,892	
5	Net Investment (Lines 2 + 3 + 4)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$75,595	$90,791	$98,913	$107,892	
6	Average Net Investment			$0	$0	$0	$0	$0	$0	$0	$0	$37,798	$83,193	$94,852	$103,402	
7	Return on Average Net Investment (B)															
	a. Debt Component	1.86%		0	0	0	0	0	0	0	0	59	129	147	160	495
	b. Equity Component Grossed Up For Taxes	6.16%		0	0	0	0	0	0	0	0	194	427	487	531	1,639
	c. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses															
	a. Depreciation (C)	4.3453%		0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Amortization			0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	d. Property Taxes (D)	0.0014%		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)			$0	$0	$0	$0	$0	$0	$0	$0	$253	$556	$634	$691	2,134
	a. Recoverable Costs Allocated to Energy			0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand			$0	$0	$0	$0	$0	$0	$0	$0	$253	$556	$634	$691	2,134
10	Energy Jurisdictional Factor			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
11	Demand Jurisdictional Factor - Production (Base)			0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	
12	Retail Energy-Related Recoverable Costs (E)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Retail Demand-Related Recoverable Costs (F)			0	0	0	0	0	0	0	0	246	542	618	673	2,079
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)			$0	$0	$0	$0	$0	$0	$0	$0	$246	$542	$618	$673	$2,079

Notes:

(A) N/A

(B) Line 6 x 8.02% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.54% and statutory tax rate of 25.345% (inc tax multiplier = 1.3394950).

(C) Line 2 x rate x 1/12. Depreciation rate based on approved rates in Order PSC-2021-0202-AS-EI.

(D) Line 2 x rate x 1/12. Based on 2023 Effective Tax Rate on original cost.

(E) Line 9a x Line 10

(F) Line 9b x Line 11

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023

Docket No. 20240007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. (GPD-1)
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Return on Capital Investments, Depreciation and Taxes
For Project: Phase II Cooling Water Intake 316(b) - Intermediate - Anclote (Project 6.2)
(in Dollars)

Line	Description		Beginning of Period Amount	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	Investments															
	a. Expenditures/Additions			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant			0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements			0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other (A)			0	0	0	0	0	0	0	0	0	0	0	0	
2	Plant-in-Service/Depreciation Base		$0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Less: Accumulated Depreciation		0	0	0	0	0	0	0	0	0	0	0	0	0	
4	CWIP - Non-Interest Bearing		0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Net Investment (Lines 2+ 3 + 4)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
6	Average Net Investment			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
7	Return on Average Net Investment (B)															
	a. Debt Component	1.86%		0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Equity Component Grossed Up For Taxes	6.16%		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses															
	a. Depreciation (C)			0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Amortization			0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	d. Property Taxes (D)	0.0014%		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0
	a. Recoverable Costs Allocated to Energy			0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand			0	0	0	0	0	0	0	0	0	0	0	0	0
10	Energy Jurisdictional Factor			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
11	Demand Jurisdictional Factor - Production (Intermediate)			0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	
12	Retail Energy-Related Recoverable Costs (E)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Retail Demand-Related Recoverable Costs (F)			0	0	0	0	0	0	0	0	0	0	0	0	0
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Notes:
(A) N/A
(B) Line 6 x 8.02% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.54% and statutory tax rate of 25.345% (inc tax multiplier = 1.3394950).
(C) Line 2 x rate x 1/12. Depreciation rate based on approved rates in Order PSC-2021-0202-AS-EI.
(D) Line 2 x rate x 1/12. Based on 2023 Effective Tax Rate on original cost.
(E) Line 9a x Line 10
(F) Line 9b x Line 11

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023

Docket No. 20240007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. (GPD-1)
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Schedule of Amortization and Return
For Project: CAIR/CAMR - Energy (Project 7.4 - Reagents and By-Products)
(in Dollars)

Line	Description		Beginning of Period Amount	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	Working Capital Dr (Cr)															
	a. 0154401 Ammonia Inventory		$3,622,236	$3,625,104	$3,650,891	$3,641,060	$3,694,325	$3,788,256	$3,848,662	$3,968,041	$4,078,655	$4,199,427	$4,252,513	$4,380,965	$4,439,007	4,439,007
	b. 0154200 Limestone Inventory (F)		1,562,606	1,632,235	1,629,412	1,584,548	1,440,852	1,612,140	1,536,281	1,619,238	1,710,880	1,714,587	1,772,151	1,646,069	1,729,661	1,729,661
2	Total Working Capital		$5,184,843	5,257,339	5,280,303	5,225,608	5,135,177	5,400,396	5,384,943	5,587,278	5,789,535	5,914,015	6,024,664	6,027,033	6,168,668	6,168,668
3	Average Net Investment			5,221,091	5,268,821	5,252,955	5,180,392	5,267,787	5,392,670	5,486,111	5,688,407	5,851,775	5,969,339	6,025,849	6,097,850	
4	Return on Average Net Working Capital Balance (A)															
	a. Debt Component (F)	1.86%		8,101	8,175	8,151	8,038	8,174	8,368	8,513	8,827	9,080	9,262	9,350	9,462	$103,501
	b. Equity Component Grossed Up For Taxes	6.16%		26,791	27,036	26,955	26,582	27,031	27,672	28,151	29,189	30,027	30,631	30,921	31,290	342,276
5	Total Return Component (B)			34,892	35,211	35,106	34,620	35,205	36,040	36,664	38,016	39,107	39,893	40,271	40,752	445,777
6	Expense Dr (Cr)															
	a. 502030 Ammonia Expense			20,776	5,315	312,002	218,483	126,068	227,579	294,416	254,408	279,959	98,659	196,503	122,661	2,156,830
	b. 502040 Limestone Expense			27,597	0	533,875	422,854	203,347	387,763	566,500	523,099	486,806	195,688	460,937	288,365	4,096,832
	c. 502050 Dibasic Acid Expense			0	0	0	0	0	0	0	0	0	0	0	0	0
	d. 502070 Gypsum Disposal/Sale			(345,972)	0	0	(82,497)	(483,371)	(285,433)	(99,978)	(417,704)	(405,620)	(481,435)	(307,541)	(436,803)	(3,346,353)
	e. 502040 Hydrated Lime Expense			17,117	6,708	256,781	237,145	149,737	242,090	357,658	347,006	350,529	124,805	301,901	169,826	2,561,304
	f. 502300 Caustic Expense (F)			149,235	50,257	301,266	282,095	24,248	127,264	178,181	168,087	(3,512)	0	0	129,686	1,406,807
7	Net Expense (C)			(131,246)	62,280	1,403,924	1,078,081	20,030	699,264	1,296,777	874,896	708,162	(62,283)	651,800	273,736	6,875,420
8	Total System Recoverable Expenses (Lines 5 + 7)		($96,354)	$97,491	$1,439,030	$1,112,701	$55,235	$735,304	$1,333,441	$912,912	$747,269	($22,390)	$692,071	$314,488	$7,321,197	
	a. Recoverable Costs Allocated to Energy		(96,354)	97,491	1,439,030	1,112,701	55,235	735,304	1,333,441	912,912	747,269	(22,390)	692,071	314,488	$7,321,197	
	b. Recoverable Costs Allocated to Demand		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
9	Energy Jurisdictional Factor		0.97050	0.97160	0.95600	0.94300	0.94940	0.94010	0.91740	0.91600	0.93730	0.96880	0.95350	0.98000		
10	Demand Jurisdictional Factor		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
11	Retail Energy-Related Recoverable Costs (D)		($93,512)	$94,722	$1,375,713	$1,049,277	$52,440	$691,259	$1,223,299	$836,228	$700,415	($21,691)	$659,890	$308,198	$6,876,237	
12	Retail Demand-Related Recoverable Costs (E)		0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Total Jurisdictional Recoverable Costs (Lines 11 + 12)		($93,512)	$94,722	$1,375,713	$1,049,277	$52,440	$691,259	$1,223,299	$836,228	$700,415	($21,691)	$659,890	$308,198	$6,876,237	

Notes:

(A) Line 3 x 8.02% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.54% and statutory tax rate of 25.345% (inc tax multiplier = 1.3394950).
(B) Line 5 is reported on Capital Schedule
(C) Line 7 is reported on O&M Schedule
(D) Line 8a x Line 9
(E) Line 8b x Line 10

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2023 - December 2023

Return on Capital Investments, Depreciation and Taxes
For Project: NESHAP - Citrus CC - Base (Project 7.6)
(in Dollars)

Docket No. 20240007-EI
Duke Energy Florida
Witness: G. P. Dean
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Line	Description		Beginning of Period Amount	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Estimated Jul-23	Estimated Aug-23	Estimated Sep-23	Estimated Oct-23	Estimated Nov-23	Estimated Dec-23	End of Period Total
1	Investments															
	a. Expenditures/Additions			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant			0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements			0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other (A)			0	0	0	0	0	0	0	0	0	0	0	0	
2	Plant-in-Service/Depreciation Base		$0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Less: Accumulated Depreciation		0	0	0	0	0	0	0	0	0	0	0	0	0	
4	CWIP - Non-Interest Bearing		0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Net Investment (Lines 2 + 3 + 4)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
6	Average Net Investment			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
7	Return on Average Net Investment (B)															
	a. Debt Component	1.81%		0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Equity Component Grossed Up For Taxes	6.16%		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Other (A)			0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses															
	a. Depreciation (C)			0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Amortization			0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	d. Property Taxes (D)	0.0014%		0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0
	a. Recoverable Costs Allocated to Energy			0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand			0	0	0	0	0	0	0	0	0	0	0	0	0
10	Energy Jurisdictional Factor			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
11	Demand Jurisdictional Factor			0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	
12	Retail Energy-Related Recoverable Costs (E)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Retail Demand-Related Recoverable Costs (F)			0	0	0	0	0	0	0	0	0	0	0	0	0
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Notes:

(A) N/A
(B) Line 6 x 8.02% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.54% and statutory tax rate of 25.345% (inc tax multiplier = 1.3394950).
(C) Line 2 x rate x 1/12. Depreciation rate based on approved rates in Order No. PSC-2021-0202-AS-EI.
(D) Line 2 x rate x 1/12. Based on 2023 Effective Tax Rate on original cost.
(E) Line 9a x Line 10
(F) Line 9b x Line 11

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023

Return on Capital Investments, Depreciation and Taxes
For Project: Effluent Limitation Guidelines CRN - Base (Project 15.1)
(in Dollars)

Line	Description		Beginning of Period Amount	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	Investments															
	a. Expenditures/Additions			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant			0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements			0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other (A)			0	0	0	0	0	0	0	0	0	0	0	0	
2	Plant-in-Service/Depreciation Base		$2,612,979	$2,612,979	$2,612,979	$2,612,979	$2,612,979	$2,612,979	$2,612,979	$2,612,979	$2,612,979	$2,612,979	$2,612,979	$2,612,979	$2,612,979	
3	Less: Accumulated Depreciation		(232,211)	(243,034)	(253,857)	(264,680)	(275,503)	(286,326)	(297,149)	(307,972)	(318,795)	(329,618)	(340,441)	(351,264)	(362,087)	
4	CWIP - Non-Interest Bearing		0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Net Investment (Lines 2 + 3 + 4)		$2,380,768	$2,369,945	$2,359,122	$2,348,299	$2,337,476	$2,326,653	$2,315,830	$2,305,007	$2,294,184	$2,283,361	$2,272,538	$2,261,715	$2,250,892	
6	Average Net Investment			$2,375,357	$2,364,534	$2,353,711	$2,342,888	$2,332,065	$2,321,242	$2,310,419	$2,299,596	$2,288,773	$2,277,950	$2,267,127	$2,256,304	
7	Return on Average Net Investment (B)															
	a. Debt Component	1.86%		3,686	3,669	3,652	3,635	3,619	3,602	3,585	3,568	3,551	3,535	3,518	3,495	43,115
	b. Equity Component Grossed Up For Taxes	6.16%		12,189	12,133	12,078	12,022	11,967	11,911	11,856	11,800	11,744	11,689	11,633	11,577	142,599
	c. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses															
	a. Depreciation (C)	4.9707%		10,823	10,823	10,823	10,823	10,823	10,823	10,823	10,823	10,823	10,823	10,823	10,823	129,876
	b. Amortization			0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	d. Property Taxes (D)	0.0014%		3	3	3	3	3	3	3	3	3	3	3	3	36
	e. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)			$26,701	$26,628	$26,556	$26,483	$26,412	$26,339	$26,267	$26,194	$26,121	$26,050	$25,977	$25,898	315,626
	a. Recoverable Costs Allocated to Energy			0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand			$26,701	$26,628	$26,556	$26,483	$26,412	$26,339	$26,267	$26,194	$26,121	$26,050	$25,977	$25,898	315,626
10	Energy Jurisdictional Factor			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
11	Demand Jurisdictional Factor - Production (Base)			0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	
12	Retail Energy-Related Recoverable Costs (E)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0
13	Retail Demand-Related Recoverable Costs (F)			26,008	25,936	25,866	25,795	25,726	25,655	25,585	25,514	25,443	25,373	25,302	25,225	307,429
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)			$26,008	$25,936	$25,866	$25,795	$25,726	$25,655	$25,585	$25,514	$25,443	$25,373	$25,302	$25,225	$307,429

Notes:

(A) N/A

(B) Line 6 x 8.02% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.54% and statutory tax rate of 25.345% (inc tax multiplier = 1.3394950).

(C) Line 2 x rate x 1/12. Depreciation rate based on approved rates in Order No. PSC-2021-0202-AS-EI.

(D) Line 2 x rate x 1/12. Based on 2023 Effective Tax Rate on original cost.

(E) Line 9a x Line 10

(F) Line 9b x Line 11

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023

Docket No. 20240007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. (GPD-1)
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Return on Capital Investments, Depreciation and Taxes
For Project: NPDES - Intermediate (Project 16)
(in Dollars)

Line	Description		Beginning of Period Amount	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	Investments															
	a. Expenditures/Additions			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant			0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements			0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other (A)			0	0	0	0	0	0	0	0	0	0	0	0	
2	Plant-in-Service/Depreciation Base		$12,841,870	$12,841,870	$12,841,870	$12,841,870	$12,841,870	$12,841,870	$12,841,870	$12,841,870	$12,841,870	$12,841,870	$12,841,870	$12,841,870	$12,841,870	
3	Less: Accumulated Depreciation		(3,416,706)	(3,451,373)	(3,486,040)	(3,520,707)	(3,555,374)	(3,590,041)	(3,624,708)	(3,659,375)	(3,694,042)	(3,728,709)	(3,763,376)	(3,798,043)	(3,832,710)	
4	CWIP - Non-Interest Bearing		$0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Net Investment (Lines 2 + 3 + 4)		$9,425,164	$9,390,497	$9,355,830	$9,321,163	$9,286,496	$9,251,829	$9,217,162	$9,182,495	$9,147,828	$9,113,161	$9,078,494	$9,043,827	$9,009,160	
6	Average Net Investment			$9,407,831	$9,373,164	$9,338,497	$9,303,830	$9,269,163	$9,234,496	$9,199,829	$9,165,162	$9,130,495	$9,095,828	$9,061,161	$9,026,494	
7	Return on Average Net Investment (B)															
	a. Debt Component	1.86%		14,598	14,544	14,490	14,436	14,383	14,329	14,275	14,221	14,167	14,114	14,060	14,006	171,623
	b. Equity Component Grossed Up For Taxes	6.16%		48,275	48,097	47,919	47,741	47,563	47,385	47,207	47,030	46,852	46,674	46,496	46,318	567,557
	c. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses															
	a. Depreciation (C)	3.2394%		34,667	34,667	34,667	34,667	34,667	34,667	34,667	34,667	34,667	34,667	34,667	34,667	416,004
	b. Amortization			0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	d. Property Taxes (D)	0.5360%		5,736	5,736	5,736	5,736	5,736	5,736	5,736	5,736	5,736	5,736	5,736	5,736	68,832
	e. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)			$103,276	$103,044	$102,812	$102,580	$102,349	$102,117	$101,885	$101,654	$101,422	$101,191	$100,959	$100,727	1,224,016
	a. Recoverable Costs Allocated to Energy			0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand			$103,276	$103,044	$102,812	$102,580	$102,349	$102,117	$101,885	$101,654	$101,422	$101,191	$100,959	$100,727	1,224,016
10	Energy Jurisdictional Factor			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
11	Demand Jurisdictional Factor - Production (Intermediate)			0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	0.92637	
12	Retail Energy-Related Recoverable Costs (E)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0
13	Retail Demand-Related Recoverable Costs (F)			95,672	95,457	95,242	95,027	94,813	94,598	94,383	94,169	93,954	93,740	93,525	93,310	1,133,892
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)			$95,672	$95,457	$95,242	$95,027	$94,813	$94,598	$94,383	$94,169	$93,954	$93,740	$93,525	$93,310	$1,133,892

Notes:
(A) N/A
(B) Line 6 x 8.02% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.54% and statutory tax rate of 25.345% (inc tax multiplier = 1.3394950).
(C) Line 2 x rate x 1/12. Depreciation rate based on approved rates in Order No. PSC-2021-0202-AS-EI.
(D) Line 2 x rate x 1/12. Based on 2023 Effective Tax Rate on original cost.
(E) Line 9a x Line 10
(F) Line 9b x Line 11

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023

Return on Capital Investments, Depreciation and Taxes
For Project: MERCURY & AIR TOXIC STANDARDS (MATS) - CRYSTAL RIVER UNITS 4 & 5 - Energy (Project 17)
(in Dollars)

Line	Description		Beginning of Period Amount	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	Investments															
	a. Expenditures/Additions			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant			0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements			0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other (A)			0	0	0	0	0	0	0	0	0	0	0	0	
2	Plant-in-Service/Depreciation Base		$3,690,187	$3,690,187	$3,690,187	$3,690,187	$3,690,187	$3,690,187	$3,690,187	$3,690,187	$3,690,187	$3,690,187	$3,690,187	$3,690,187	$3,690,187	
3	Less: Accumulated Depreciation		(687,365)	(702,650)	(717,935)	(733,220)	(748,505)	(763,790)	(779,075)	(794,360)	(809,645)	(824,930)	(840,215)	(855,500)	(870,786)	
4	CWIP - Non-Interest Bearing		$0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Net Investment (Lines 2 + 3 + 4)		$3,002,822	$2,987,537	$2,972,252	$2,956,967	$2,941,682	$2,926,397	$2,911,112	$2,895,827	$2,880,542	$2,865,257	$2,849,972	$2,834,687	$2,819,401	
6	Average Net Investment			$2,995,179	$2,979,894	$2,964,609	$2,949,324	$2,934,039	$2,918,754	$2,903,469	$2,888,184	$2,872,899	$2,857,614	$2,842,329	$2,827,044	
7	Return on Average Net Investment (B)															
	a. Debt Component	1.86%		4,648	4,624	4,600	4,576	4,553	4,529	4,505	4,481	4,458	4,434	4,410	4,385	54,203
	b. Equity Component Grossed Up For Taxes	6.16%		15,369	15,291	15,212	15,134	15,056	14,977	14,899	14,820	14,742	14,663	14,585	14,511	179,259
	c. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses															
	a. Depreciation (C)	4.9707%		15,285	15,285	15,285	15,285	15,285	15,285	15,285	15,285	15,285	15,285	15,285	15,286	183,421
	b. Amortization			0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	d. Property Taxes (D)	0.0014%		4	4	4	4	4	4	4	4	4	4	4	4	48
	e. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)			$35,306	$35,204	$35,101	$34,999	$34,898	$34,795	$34,693	$34,590	$34,489	$34,386	$34,284	$34,186	416,931
	a. Recoverable Costs Allocated to Energy			35,306	35,204	35,101	34,999	34,898	34,795	34,693	34,590	34,489	34,386	34,284	34,186	416,931
	b. Recoverable Costs Allocated to Demand			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0
10	Energy Jurisdictional Factor			0.97050	0.97160	0.95600	0.94300	0.94940	0.94010	0.91740	0.91600	0.93730	0.96880	0.95350	0.98000	
11	Demand Jurisdictional Factor			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
12	Retail Energy-Related Recoverable Costs (E)			$34,264	$34,204	$33,557	$33,004	$33,132	$32,711	$31,827	$31,684	$32,327	$33,313	$32,690	$33,502	396,216
13	Retail Demand-Related Recoverable Costs (F)			0	0	0	0	0	0	0	0	0	0	0	0	0
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)			$34,264	$34,204	$33,557	$33,004	$33,132	$32,711	$31,827	$31,684	$32,327	$33,313	$32,690	$33,502	$396,216

Notes:

(A) N/A

(B) Line 6 x 8.02% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.54% and statutory tax rate of 25.345% (inc tax multiplier = 1.3394950).

(C) Line 2 x rate x 1/12. Depreciation rate based on approved rates in Order No. PSC-2021-0202-AS-EI.

(D) Line 2 x rate x 1/12. Based on 2023 Effective Tax Rate on original cost.

(E) Line 9a x Line 10

(F) Line 9b x Line 11

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023

Return on Capital Investments, Depreciation and Taxes
For Project: COAL COMBUSTION RESIDUAL (CCR) RULE - Base (Project 18)
(in Dollars)

Line	Description		Beginning of Period Amount	Actual Jan-23	Actual Feb-23	Actual Mar-23	Actual Apr-23	Actual May-23	Actual Jun-23	Actual Jul-23	Actual Aug-23	Actual Sep-23	Actual Oct-23	Actual Nov-23	Actual Dec-23	End of Period Total
1	Investments															
	a. Expenditures/Additions			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	b. Clearings to Plant			0	0	0	0	0	0	0	0	0	0	0	0	
	c. Retirements			0	0	0	0	0	0	0	0	0	0	0	0	
	d. Other (A)			0	0	0	0	0	0	0	0	0	0	0	0	
2	Plant-in-Service/Depreciation Base		$4,321,533	4,321,533	4,321,533	4,321,533	4,321,533	4,321,533	4,321,533	4,321,533	4,321,533	4,321,533	4,321,533	4,321,533	4,321,533	
3	Less: Accumulated Depreciation		(281,771)	(299,672)	(317,573)	(335,474)	(353,375)	(371,275)	(389,176)	(407,077)	(424,978)	(442,878)	(460,779)	(478,680)	(496,581)	
4	CWIP - Non-Interest Bearing		0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Net Investment (Lines 2 + 3 + 4)		$4,039,762	$4,021,861	$4,003,960	$3,986,059	$3,968,159	$3,950,258	$3,932,357	$3,914,456	$3,896,555	$3,878,655	$3,860,754	$3,842,853	$3,824,952	
6	Average Net Investment			$4,030,811	$4,012,910	$3,995,010	$3,977,109	$3,959,208	$3,941,307	$3,923,407	$3,905,506	$3,887,605	$3,869,704	$3,851,803	$3,833,903	
7	Return on Average Net Investment (B)															
	a. Debt Component	1.86%		6,254	6,227	6,199	6,171	6,143	6,116	6,088	6,060	6,032	6,004	5,977	5,949	73,220
	b. Equity Component Grossed Up For Taxes	6.16%		20,683	20,592	20,500	20,408	20,316	20,224	20,132	20,040	19,949	19,857	19,765	19,673	242,139
	c. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses															
	a. Depreciation (C)	4.9707%		17,901	17,901	17,901	17,901	17,901	17,901	17,901	17,901	17,901	17,901	17,901	17,901	214,809
	b. Amortization			0	0	0	0	0	0	0	0	0	0	0	0	0
	c. Dismantlement			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	d. Property Taxes (D)	0.0014%		5	5	5	5	5	5	5	5	5	5	5	5	60
	e. Other			0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)			$44,843	$44,725	$44,605	$44,485	$44,365	$44,246	$44,126	$44,006	$43,887	$43,767	$43,648	$43,528	530,228
	a. Recoverable Costs Allocated to Energy			0	0	0	0	0	0	0	0	0	0	0	0	0
	b. Recoverable Costs Allocated to Demand			$44,843	$44,725	$44,605	$44,485	$44,365	$44,246	$44,126	$44,006	$43,887	$43,767	$43,648	$43,528	530,231
10	Energy Jurisdictional Factor			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
11	Demand Jurisdictional Factor			0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	0.97403	
12	Retail Energy-Related Recoverable Costs (E)			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
13	Retail Demand-Related Recoverable Costs (F)			43,678	43,563	43,447	43,330	43,213	43,097	42,980	42,863	42,747	42,630	42,514	42,398	516,461
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)			$43,678	$43,563	$43,447	$43,330	$43,213	$43,097	$42,980	$42,863	$42,747	$42,630	$42,514	$42,398	$516,461

Notes:

(A) N/A

(B) Line 6 x 8.02% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.54% and statutory tax rate of 25.345% (inc tax multiplier = 1.3394950).

(C) Line 2 x rate x 1/12. Depreciation rate based on approved rates in Order No. PSC-2021-0202-AS-EI.

(D) Line 2 x rate x 1/12. Based on 2023 Effective Tax Rate on original cost.

(E) Line 9a x Line 10

(F) Line 9b x Line 11

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Final True-Up
January 2023 - December 2023
Capital Structure and Cost Rates

		(1)	(2)	(3)	(4)	(5)	(6)
		Jurisdictional Rate Base Adjusted Retail ($000s)	Cap Ratio	Cost Rate	Weighted Cost	Revenue Requirement Rate	Monthly Revenue Requirement Rate
1	Common Equity	$ 8,196,604	44.95%	10.10%	4.54%	6.08%	0.5067%
2	Long Term Debt	6,847,837	37.55%	4.60%	1.73%	1.73%	0.1442%
3	Short Term Debt	329,410	1.81%	5.17%	0.09%	0.09%	0.0075%
4	Cust Dep Active	153,259	0.84%	2.61%	0.02%	0.02%	0.0017%
5	Cust Dep Inactive	1,474	0.01%			0.00%	0.0000%
6	Invest Tax Cr	191,599	1.05%	7.60%	0.08%	0.10%	0.0083%
7	Deferred Inc Tax	2,514,030	13.79%			0.00%	0.0000%
8	**Total**	**$ 18,234,213**	**100.00%**		**6.46%**	**8.02%**	**0.6683%**

	ITC split between Debt and Equity**:	Ratio	Rate	Cost Ratio	Ratio	Deferred Inc Tax	Weighted ITC	After Gross-up
9	Common Equity	8,196,604	54%	10.10%	5.50%	72.4%	0.08%	0.058%	0.078%
10	Preferred Equity	-	0%				0.08%	0.000%	0.000%
11	Long Term Debt	6,847,837	46%	4.60%	2.09%	27.6%	0.08%	0.022%	0.022%
12		15,044,440	100%		7.60%			0.080%	0.100%

	Breakdown of Revenue Requirement Rate of Return between Debt and Equity:	
13	Total Equity Component (Lines 1 and 9)	6.158%
14	Total Debt Component (Lines 2, 3 , 4 , and 11)	1.862%
15	**Total Revenue Requirement Rate of Return**	**8.020%**

Notes:

Effective Tax Rate: 25.345%

Column:

(1) Per Order No. PSC-2020-0165-PAA-EU, issued May 20, 2020, approving amended joint motion modifying WACC methodology

(2) Column (1) / Total Column (1)

(3) Per Order No. PSC-2020-0165-PAA-EU, issued May 20, 2020, approving amended joint motion modifying WACC methodology and Order PSC-2022-0357-FOF-EI approving return on equity trigger.
Line 6 and Line 12, the cost rate of ITC's is determined under Treasury Regulation section 1.46-6(b)(3)(ii).

(4) Column (2) x Column (3)

(5) For equity components: Column (4) / (1-effective income tax rate/100)

* For debt components: Column (4)

** Line 6 is the pre-tax ITC components from Lines 9 and 11

(6) Column (5) / 12

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

ERIC SZKOLNYJ

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC.

DOCKET NO. 20240007-EI

April 1, 2024

Q. Please state your name and business address.

A. My name is Eric Szkolnyj. My business address is 525 South Tryon Street, Charlotte, NC 28202.

Q: By whom are you employed and in what capacity?

A: I am employed by Duke Energy Corporation ("Duke Energy") as General Manager for the Coal Combustion Products ("CCP") Group - Operations & Maintenance. Duke Energy Florida, LLC ("DEF" or the "Company") is a fully owned subsidiary of Duke Energy.

Q: What are your responsibilities in that position?

A: I am responsible for oversight of the operation and maintenance of the majority of CCP facilities in the Carolinas and Florida, including the CCP facility at the Crystal River Energy Center. This includes operating and maintaining all CCP facilities in compliance with state and federal regulations. The Operations and Maintenance group at each station maintains accountability for overall CCP

facility performance which requires close collaboration with other Duke Energy CCP organizations such as Project Implementation, Engineering, and Facility Closure. The Company relies on my opinions and information I provide when making decisions regarding the CCP facilities under my supervision.

Q: Please describe your educational background and professional experience.

A: I have a Bachelor of Science degree in Mechanical Engineering from North Carolina State University. I have 19 years of experience in the power generation industry including positions as a Nuclear Control Room Supervisor, Lead Engineer, and Nuclear Oversight Lead Assessor within Duke Energy's Nuclear fleet at Harris Nuclear Plant, and as the Director of Operational Excellence Assessments & Oversight for Duke Energy's Enterprise. Prior to joining Duke Energy, I was employed by the Department of Defense as a civilian Shift Test Engineer for the U.S. Navy. In June of 2021, I began my current role as CCP Regional General Manager.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain material variances between actual and actual/estimated project expenditures for environmental compliance costs associated with DEF's Coal Combustion Residual ("CCR") Rule for the period January 2023 - December 2023. DEF did not have any material variances for the period January 2023 – December 2023.

Q. How did actual O&M project expenditures for the period January 2023 – December 2023 compare to actual/estimated O&M projections for the CCR Rule (Project 18)?

A. The CCR Rule O&M variance is $31,745 or 7% lower than projected.

Q. Does this conclude your testimony?

A. Yes.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

REGINALD ANDERSON

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20240007-EI

April 1, 2024

Q. Please state your name and business address.

A. My name is Reginald Anderson. My business address is 299 First Avenue North, St. Petersburg, FL 33701.

Q. By whom are you employed and in what capacity?

A. I am employed by Duke Energy Florida, LLC ("DEF" or the "Company") as Vice President – Regulated & Renewable Energy Florida.

Q. What are your responsibilities in that position?

A. As Vice President of DEF's Regulated & Renewable Energy organization, my responsibilities include overall leadership and strategic direction of DEF's power generation fleet. My responsibilities include strategic and tactical planning to operate and maintain DEF's non-nuclear generation fleet; generation fleet project and addition recommendations; major maintenance programs; outage and project management; generation facilities retirement; asset allocation; workforce

planning and staffing; organizational alignment and design; continuous business improvement; retention and inclusion; succession planning; and oversight of numerous employees and hundreds of millions of dollars in assets and capital and O&M budgets.

Q. Please describe your educational background and professional experience.

A. I earned a Bachelor of Science degree in Electrical Engineering Technology and Master of Business from the University of Central Florida in 1996 and 2008 respectively. I have 25 years of power plant production experience at DEF in various operational, managerial and leadership positions in fossil steam and combustion turbine plant operations. I also managed the new construction and O&M projects team. I have contract negotiation and management experience. My prior experience includes leadership roles in municipal utilities, manufacturing, and the United States Marine Corps.

Q. Have you previously filed testimony before this Commission in connection with DEF's Environmental Cost Recovery Clause ("ECRC")?

A. Yes.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain material variances between actual and actual/estimated project expenditures for environmental compliance costs associated with DEF's Integrated Clean Air Compliance Program (Project 7.4),

Mercury and Air Toxics Standards (MATS) – Crystal River (CR) 4&5 (Project 17), Mercury and Air Toxics Standards ("MATS") - Anclote Gas Conversion Project (Project 17.1), and Mercury & Air Toxics Standards (MATS) – CR 1&2 (Project 17.2) for the period January 2023 - December 2023.

Q. Please explain the O&M variance between actual project expenditures and actual/estimated projections for the CAIR Crystal River Project – Energy (Reagents) (Project 7.4) for January 2023 - December 2023?

A. O&M costs for CAIR Crystal River Project – Energy (Reagents) were $1,087,822 or 14% lower than projected. This is predominantly due to Gypsum Sale/Disposal, which had a greater than forecasted credit, actual Gypsum Sales were a credit of $3,346,353, or $2.2M credit (194%) greater than forecasted. Variance for the other reagents were $99k (2%) lower for Limestone Expense, $202k (10%) higher for Ammonia Expense, $697k (37%) higher for Hydrated Lime Expense, and $322k (30%) higher for Caustic Expense.

Q. Please explain the O&M variance between actual project expenditures and actual/estimated projections for the Mercury and Air Toxics Standards ("MATS") – Crystal River (CR) 4&5 – Energy (Project 17) for January 2023 - December 2023?

A. O&M costs for Mercury and Air Toxics Standards (MATS) – Crystal River (CR) 4&5 were $129,326 or 66% lower than projected. This variance is primarily due to a change in timing of the MATS testing for Unit 5. This was originally

scheduled to be completed during an outage in Fall of 2023, but has been rescheduled to the Spring of 2024.

Q. Does this conclude your testimony?

A. Yes.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

PATRICIA Q. WEST

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20240007-EI

April 1, 2024

Q. Please state your name and business address.

A. My name is Patricia Q. West. My business address is 299 First Avenue North, St. Petersburg, FL 33701.

Q. By whom are you employed and in what capacity?

A. I am employed by Duke Energy Florida, LLC ("DEF" or the "Company") as Director Environmental Field Support – Florida.

Q. What are your responsibilities in that position?

A. My responsibilities include managing the work of environmental field professionals who are responsible for environmental, technical, and regulatory support during the development and implementation of environmental compliance strategies for regulated power generation facilities and electrical transmission and distribution facilities in Florida. This includes daily compliance activities in support of operations.

Q. Please describe your educational background and professional experience.

A. I obtained my Bachelor of Arts degree in Biology from New College of the University of South Florida in 1983. I was employed by the Polk County Health Department between 1983 and 1986 and by the Florida Department of Environmental Protection ("FDEP") from 1986 - 1990. At the FDEP, I was involved in compliance and enforcement efforts associated with petroleum storage facilities. I joined Florida Power Corporation in 1990 as an Environmental Project Manager and then held progressively more responsible positions through the merger with Carolina Power and Light, and more recently through the merger with Duke Energy in my role as the Director Environmental Field Support – FL.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain material variances between actual and actual/estimated project expenditures for environmental compliance costs associated with FPSC-approved programs under my responsibility. These programs include the T&D Substation Environmental Investigation, Remediation and Pollution Prevention Program (Projects 1 & 1a), Distribution Environmental Investigation, Remediation and Pollution Prevention Program (Project 2), Pipeline Integrity Management ("PIM") Program (Project 3), Above Ground Storage Tanks ("AST") Program (Project 4), Phase II Cooling Water Intake 316(b) Program (Project 6), CAIR/CAMR Continuous Mercury Monitoring System ("CMMS") Program (Projects 7.2 & 7.3), Best Available Retrofit

Technology ("BART") Program (Project 7.5), National Emission Standards for Hazardous Air Pollutants ("NESHAP") – Base (Project 7.6), Arsenic Groundwater Standard Program (Project 8), Sea Turtle – Coastal Street Lighting Program (Project 9), Underground Storage Tanks ("UST") Program (Project 10), Modular Cooling Towers (Project 11), Thermal Discharge Permanent Compliance (Project 11.1), Greenhouse Gas Inventory and Reporting (Project 12), Mercury Total Maximum Loads Monitoring ("TMDL") (Project 13), Hazardous Air Pollutants ("HAPs") Information Collection Request ("ICR") (Project 14), Effluent Limitation Guidelines CRN (Project 15.1), and National Pollutant Discharge Elimination System ("NPDES") Program (Project 16).

Q. How did actual O&M expenditures for January 2023 - December 2023 compare with DEF's actual/estimated projections for the Phase II Cooling Water Intake - 316(b) Project (Projects 6 & 6a)?

A. The Phase II Cooling Water Intake - 316(b) (Projects 6 & 6a) O&M variance is 26%, or $92,845 lower than projected. This variance is primarily due to Crystal River's reduced runtimes which reduced the number of cleanings the intake screens required for the year. Additional favorability is due to the delay in permit issuance for the Anclote Station. The draft Anclote NPDES permit was issued on February 5, 2024. The final permit is expected to be issued in spring 2024.

Q. How did actual Capital expenditures for January 2023 - December 2023 compare with DEF's actual/estimated projections for the Cooling Water Intake - 316(b) Bartow Project (Project 6.1)?

A. The Cooling Water Intake - 316(b) (Bartow) capital variance is 72% or $280,468 lower than projected. This variance is predominantly due to a delay in project commencement. Contracts were projected to be in place by July 2023, however, final contracts were not issued until September 2023 which delayed the start of the engineering and design phase of the project.

Q. How did actual O&M expenditures for January 2023 - December 2023 compare with DEF's actual/estimated projections for the National Emission Standards for Hazardous Air Pollutants (NESHAP) – Base Project (Project 7.6)?

A. The National Emission Standards for Hazardous Air Pollutants (NESHAP) - Base (Project 7.6) O&M variance is 31%, or $18,862 lower than projected.

This variance is primarily due to the permit updates being incorporated into the permit renewal process instead of a permit modification, which results in a cost savings.

Q. How did actual O&M expenditures for January 2023 - December 2023 compare with DEF's actual/estimated projections for the Arsenic Groundwater - Energy Project (Project 8)?

A. The Arsenic Groundwater - Energy (Project 8) O&M variance is 30% or $26,747 lower than projected. This variance is primarily due to delay in preparing the required Declaration of Restrictive Land Use Covenant which was dependent upon FDEP's approval of associated closure and institutional controls proposal. The Covenant is a legal document which outlines the restricted use of the property due to soil / groundwater impacts in FDEP's area of concern. Once finalized, this legal document will be appended to the property deed with the county property appraiser's office.

Q. In Order No. PSC-2010-0683-FOF-EI issued in Docket No. 20100007-EI on November 15, 2010, the Commission directed DEF to file as part of its ECRC true-up testimony a yearly review of the efficacy of its Plan D and the cost-effectiveness of DEF's retrofit options for each generating unit in relation to expected changes in environmental regulations. Has DEF conducted such a review?

A. Yes. DEF's yearly review of the Integrated Clean Air Compliance Plan is provided as Exhibit No. (PQW-1).

Q. What is the status of the Clean Water Rule?

A. On June 29, 2015, the Environmental Protection Agency ("EPA") and the Army Corps of Engineers ("Corps") published the final Clean Water Rule that significantly expanded the definition of the Waters of the United States ("WOTUS"). On October 9, 2015, the U.S. Court of Appeals for the Sixth Circuit

granted a nationwide stay of the rule effective through the conclusion of the judicial review process. On February 22, 2016 the Sixth Circuit issued an opinion that it has jurisdiction and is the appropriate venue to hear the merits of legal challenges to the rule; however, that decision was contested, and on January 22, 2018, the U.S. Supreme Court issued its decision stating federal district courts, instead of federal appellate courts, have jurisdiction over challenges to the rule defining waters of the United States Consistent with the U.S. Supreme Court decision, the U.S. Court of Appeals for the Sixth Circuit lifted its nationwide stay on February 28, 2018. The stay issued by the North Dakota District Court remains in effect, but only within the thirteen counties within the North Dakota District. On February 28, 2017, President Trump signed an executive order laying out a new policy direction for how "Waters of the United States" should be defined and directing the EPA and the Corps to initiate a rulemaking to either rescind or revise the 2015 Clean Water Rule developed by the Obama administration. Subsequently, the EPA Administrator signed a pre-publication notice reflecting the intent to move forward with rulemaking in response to this directive. In addition, the executive order seeks to have the Department of Justice determine the path forward on the Clean Water Rule litigation as a result of the new policy direction.

On January 31, 2018, the EPA and Corps announced a final rule adding an applicability date to the 2015 rule defining "Waters of the United States," thereby deferring implementation of the 2015 WOTUS Rule until early 2020. This rule

has no immediate impact to Duke Energy, and the agencies will continue to apply the pre-existing WOTUS definition in place prior to the 2015 rule until 2020.

On February 14, 2019, the EPA and the Corps published in the Federal Register, the "Revised Definition of 'Waters of the United States,'" which proposed to narrow the extent of the Clean Water Act jurisdiction as compared to the 2015 definition adopted by the Obama Administration (Proposed Rule). On January 23, 2020, the EPA and the Corps released a pre-publication version of *The Navigable Waters Protection Rule: Definition of "Waters of the United States." (NWPR Rule)*. On April 21, 2020, the EPA and the Corps published the modified definition of the WOTUS in the Federal Register. DEF has reviewed the final rule and determined there are no impacts associated with the 2020 WOTUS Rule with respect to the operation of our existing generation facilities.

On January 20, 2021, through Executive Order 13990, the Biden Administration directed the EPA and the Corps to review the NWPR Rule. The US District Court for the District of Arizona vacated and remanded the NWPR Rule on August 30, 2021, which vacated and remanded the rule nationwide. The EPA and the Corps announced on September 3, 2021, that efforts to implement the NWPR Rule had ceased and on December 7, 2021, the EPA published a proposed rule to officially repeal the NWPR Rule and replace it with the 1986 WOTUS rule. The public comment period for this proposed rule closed on February 7, 2022. On January 18, 2023, the EPA and Corps published in the Federal Register the final rule revising the definition of "Waters of the United States" (the "WOTUS Final

Rule"). The WOTUS Final Rule sets forth which surface waters and wetlands are jurisdictional for section 404 wetland permitting, NPDES, and other Clean Water Act ("CWA") regulatory programs. The WOTUS Final Rule became effective on March 20, 2023.

On May 25, 2023, the U.S. Supreme Court (the Court) unanimously rejected the significant nexus test as a basis for determining whether "adjacent" wetlands are considered waters of the United States (WOTUS). On June 26, 2023, EPA announced that they and the Corps would promulgate a new WOTUS rule based on the Court's decision. This final rule was published on September 8, 2023, was effective immediately and amended the previous 2023 definition of WOTUS. As a result of ongoing litigation on the January 2023 rule, the agencies are implementing the January 2023 rule. In Florida the agencies are interpreting WOTUS consistent with the pre-2015 definition and the Court's decision until further notice.

DEF will continue to monitor the status of the rule and any proposed changes to ascertain any further compliance steps that may be required.

Q. Please explain Rule 62-520.420 Florida Administrative Code (F.A.C.), and its impact to DEF.

A. Rule 62-520.420, Florida Administrative Code (F.A.C.), "Standards for Class G-I and G-II Ground Water," establishes standards for discharges into Class G-I and

G-II Ground Water. The rule includes the requirement to comply with the groundwater standard for manganese of 0.160 mg/L. In the case of the Citrus Combined Cycle Station, this requirement is implemented in Attachment H of Conditions of Certification PA 77-09, which authorizes discharge of the Industrial Wastewater ("IWW") generated by the station into a percolation pond system. The authorization includes groundwater monitoring required to comply with the rule.

On January 10, 2023, the Florida Department of Environmental Protection ("FDEP") issued Administrative Order AO-052SWD22 ("AO") to provide an interim limit and compliance schedule to address exceedances of the manganese groundwater standard following the February 7, 2023 amendment of the Attachment H which designated compliance wells and implemented a site-specific manganese ground water standard based on background conditions. The AO requires the station to be in compliance with the standard by January 10, 2026, 3 years from issuance of the AO. The 2nd Quarter 2023 Progress Report submitted to FDEP on July 13, 2023, as required by the AO, indicated that DEF would be pursuing the design of a permanent manganese reduction solution for the site and expected to have a concept design completed by the end of 3rd Quarter 2023. The concept design for the Citrus Combined Cycle Water Treatment System was completed as scheduled and a meeting was conducted with FDEP on November 13, 2023, to discuss permitting of the project by amending Attachment H of the Conditions of Certification.

Q. Which DEF generating units are impacted by the Administrative Order?

A. The Citrus Combined Cycle ("CCC") units are impacted by the AO. To comply, DEF will construct and operate a Water Treatment System to remove manganese from the station's filter backwash, with the treated water being reused in the service water system, and the solids being disposed of at the Crystal River Energy Complex landfill. The expected capital costs and O&M costs for 2024 through the compliance date of January 10, 2026, are yet to be determined. After the project goes in-service DEF will be required to perform annual maintenance and conduct annual compliance tests to demonstrate continued compliance with the regulation. DEF will include the 2024 and forward capital and O&M cost estimates for this project in the 2024 Actual/Estimated Filing and 2025 Projection Filing, to be filed with the Commission on July 26, 2024, and August 30, 2024, respectively.

Q. Do DEF's expected Citrus Combined Cycle Water Treatment System compliance activity costs meet the recovery criteria established by Order No. 94-044-FOF-EI?

A. Yes. The proposed Citrus Combined Cycle Water Treatment System compliance activities associated with the standard merit ECRC cost recovery under Order No. PSC-94-0044-FOF-EI. All costs associated with the project will be prudently incurred after April 13, 1993. This activity is legally required to comply with the requirements of Administrative Order AO-052SWD22 during its 3-year duration

and ultimately to comply with Rule 62-520.420. The need to engage in such activities has been triggered after the Company's last rate case and are not recovered through base rates or through any other mechanism.

Q. Does this conclude your testimony?

A. Yes.

Duke Energy Florida, LLC

Review of Integrated Clean Air Compliance Plan

Submitted to the
Florida Public Service Commission

April 1, 2024

Table of Contents

Acronyms

BART – Best Available Retrofit Technology

CAIR – Clean Air Interstate Rule

CAMR – Clean Air Mercury Rule

CAVR – Clean Air Visibility Rule

CCR - Coal Combustion Residuals

CO_2 – Carbon Dioxide

CPP – Clean Power Plan

CSAPR – Cross-State Air Pollution Rule

DEF – Duke Energy Florida

ECRC – Environmental Cost Recovery Clause

EPA – Environmental Protection Agency

EGU – Electric Generating Unit

ELG - Effluent Limitation Guidelines

ESP – Electrostatic Precipitator

FDEP – Florida Department of Environmental Protection

FGD – Flue Gas Desulfurization

GHG – Greenhouse Gas

LNB – Low NO_x Burner

MATS – Mercury and Air Toxic Standards

MWh – Megawatt Hour

NAAQS – National Ambient Air Quality Standards

NO_x – Nitrogen Oxides

NPDES – National Pollutant Discharge Elimination System

NSPS - New Source Performance Standards

PAC – Powdered Activated Carbon

Plan D – DEF Integrated Clean Air Compliance Plan

PM – Particulate Matter

ppb – Parts per billion

PSC – Public Service Commission
SCR – Selective Catalytic Reduction
SIP – Site Implementation Plan
SO_2 – Sulfur Dioxide

Executive Summary

In the 2007 Environmental Cost Recovery Clause ("ECRC") Docket (No. 20070007-EI), the Commission approved Duke Energy Florida's ("DEF") updated Integrated Clean Air Compliance Plan (Plan D) as a reasonable and prudent means to comply with the requirements of the Clean Air Interstate Rule ("CAIR") (subsequently replaced by the Cross-State Air Pollution Rule ("CSAPR"), Clean Air Mercury Rule ("CAMR") (subsequently replaced by the Mercury and Air Toxics Standards ("MATS" rule), Clean Air Visibility Rule ("CAVR"), and related regulatory requirements. In its 2007 final order, the Commission also directed DEF to file as part of its ECRC true-up testimony "a yearly review of the efficacy of its Plan D and the cost-effectiveness of DEF's retrofit options for each generating unit in relation to expected changes in environmental regulations." This report provides the required review for 2024.

The primary original components of DEF's 2006 Compliance Plan D included:

Sulfur Dioxide ("SO_2")

- Installation of flue gas desulfurization ("FGD") systems on Crystal River ("CR") Units 4 and 5
- Fuel switching at CR Units 1 and 2 to burn low sulfur coal
- Fuel switching at Anclote Units 1 and 2 to burn low sulfur oil and natural gas
- Purchases of SO_2 allowances

Nitrogen Oxides ("NO_x")

- Installation of low NO_x burners ("LNBs") and selective catalytic reduction ("SCR") systems on CR Units 4 and 5

- Installation of LNBs and separated over-fire air ("SOFA") or alternative NO_x controls at Anclote Units 1 and 2
- Purchase of annual and ozone season NO_x allowances

Mercury

- Installation of FGD and SCR systems at CR Units 4 and 5
- Installation of powdered activated carbon ("PAC") injection on CR Unit 2

As detailed in Docket No. 20070007-EI, DEF decided on Plan D based on a quantitative and qualitative evaluation of the ability of alternative plans to meet environmental requirements, while managing risks and controlling costs. That evaluation demonstrated that Plan D is DEF's most cost-effective alternative to meet applicable regulatory requirements. The Plan was designed to strike a balance between reducing emissions, primarily through the installation of controls on DEF's largest and newest coal units (CR Units 4 and 5) and making strategic use of emission allowance markets.

In accordance with the Commission's final order in Docket No. 20070007-EI, DEF has continued to review the efficacy of Plan D and the cost-effectiveness of retrofit options in relation to expected changes in environmental regulations. With regard to efficacy, Plan D remains the cornerstone of DEF's efforts to comply with applicable air quality regulations in a cost-effective manner.

As indicated in previous ECRC filings, the U.S. Court of Appeals for the District of Columbia ("D.C. Circuit") stayed the effect of CSAPR (proposed by the U.S. Environmental Protection Agency ("EPA") to replace CAIR) leaving CAIR in effect until the court completed its review of CSAPR. In August 2012, the D.C. Circuit vacated CSAPR in its entirety, and in January 2013, the court denied the EPA's petition for rehearing. On April 29, 2014, the U.S. Supreme Court reversed the D.C. Circuit's decision and upheld the CSAPR. The EPA subsequently petitioned the D.C. Circuit to reinstate CSAPR, making it effective January 1, 2015. The court agreed with the EPA and approved its petition. On September 7, 2016, the EPA finalized its CSAPR Update rule and eliminated Florida, South Carolina, and North Carolina from the CSAPR ozone season program based on modeling which shows that NO_x emissions from these states do

not significantly contribute to ozone nonattainment in any downwind state. Duke Energy sources in Florida are no longer subject to any CSAPR NO_x emission limitations, as of the beginning of 2017.

Additionally, on February 16, 2012, the EPA issued MATS to replace the vacated CAMR for emissions from coal- and oil-fired electric generating units ("EGUs"), including, DEF's Anclote Units 1 and 2, Suwannee Units 1, 2, and 3, and CR Units 1, 2, 4, and 5. The following summarizes the results of DEF's MATS compliance analyses for these units:

Anclote Units 1 & 2: DEF determined that the most cost-effective option for Anclote Units 1 and 2 was conversion to fire 100% natural gas rather than installation of emission controls to comply with MATS. The Commission approved DEF's petition for ECRC recovery of costs associated with the Anclote Conversion Project in Docket No. 20120103-EI.

Suwannee Units 1, 2 & 3: DEF determined that no further modifications were needed on Suwannee Units 1, 2 and 3 as these units were already capable of operating on 100% natural gas.

CR Units 4 & 5: DEF determined that the existing electrostatic precipitators ("ESPs"), FGDs, and SCRs at CR Units 4 and 5 would provide sufficient control for MATS compliance under typical conditions. DEF also determined that chemical injection systems would be required to mitigate mercury re-emissions from the FGDs. On December 15, 2014, DEF requested a one-year extension to allow time for installation of additional mercury control systems. On March 12, 2015, the Florida Department of Environmental Protection ("FDEP") authorized a one-year extension (to April 16, 2016) for all mercury-related MATS requirements on CR Units 4 and 5; the units have operated in compliance with the Standards since that time.

CR Units 1 & 2: DEF determined that the use of alternative coals (along with dry sorbent injection, PAC injection, and ESP enhancements) was a feasible and cost-effective strategy to allow these units to continue running for a limited period of time in compliance with MATS and Best Available Retrofit Technology ("BART") requirements until new generation could be built. This plan was approved by the Commission in Order No. PSC-2014-0173-PAA-EI (April 17, 2014). On February 6, 2014, the FDEP granted a one-year extension (to April 16, 2016) for all MATS requirements on CR Units 1 and 2; the units were operated in compliance with the Standards since that time. CR Units 1 and 2 were retired from service on December 31, 2018.

DEF is confident that the emission controls installed pursuant to Plan D, along with compliance strategies discussed further in this Plan, continue to enable the Company to achieve and maintain compliance with all applicable environmental regulations in a cost-effective manner.

I. Introduction

In its final order in the 2007 ECRC Docket (No. 20070007-EI), the Commission approved DEF's updated Integrated Clean Air Compliance Plan (Plan D) as a reasonable and prudent means to comply with the requirements of CAIR, CAMR, CAVR and related regulatory requirements. In *In re Environmental Cost Recovery Clause*, Order No. PSC-2007-0922-FOF-EI, p. 8 (Nov. 16, 2007), the Commission specifically found that "PEF's [now DEF's] updated Integrated Clean Air Compliance Plan represents the most cost-effective alternative for achieving and maintaining compliance with CAIR, CAMR, and CAVR, and related regulatory requirements, and it is reasonable and prudent for DEF to recover prudently incurred costs to implement the plan." *Id*. The Commission also directed DEF to file as part of its ECRC true-up testimony "a yearly review of the efficacy of its Plan D and the cost-effectiveness of [DEF's] retrofit options for each generating unit in relation to expected changes in environmental regulations." *Id*. The purpose of this report is to provide the required review for 2024.

II. Regulatory Background

No changes have occurred since previous filing of the Integrated Clean Air Compliance Plan, Docket No. 20230007.

A. Status of CAIR and CSAPR

No changes have occurred since previous filing of the Integrated Clean Air Compliance Plan, Docket No. 20230007.

B. Vacatur of CAMR and Adoption of MATS

In February 2008, the D.C. Circuit Court vacated CAMR and rejected the EPA's delisting of coal-fired EGUs from the list of emission sources that are subject to Section 112 of the Clean

Air Act. *See New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008). As a result, in lieu of CAMR, the EPA was required to adopt new emissions standards for control of various hazardous air pollutant emissions from coal-fired EGUs. *Id*. The EPA issued its proposed rule to replace CAMR on March 16, 2011, with publication following in the *Federal Register* on May 3, 2011. *See* 76 Fed. Reg. 24976 (May 3, 2011). On February 16, 2012, the EPA published the final rule which established new MATS limits for emissions of various metals and acid gases from both coal- and oil-fired EGUs. Compliance generally was required to be achieved within three years of the EPA's adoption of MATS (i.e., April 16, 2015), although the Clean Air Act authorizes permitting authorities to grant one-year compliance extensions in certain circumstances. On June 29, 2015, the U.S. Supreme Court remanded the MATS rule to the D.C. Circuit, finding that the EPA insufficiently considered costs in determining that it is "appropriate and necessary" to regulate mercury from power plants. On December 15, 2015, the D.C. Circuit remanded the MATS rule to the EPA without vacatur, and the EPA committed to completing its consideration of cost by April 16, 2016. On March 3, 2016, the U.S. Supreme Court denied a request for a stay of the MATS rule while the EPA completes it cost consideration, thus the MATS rule remained in effect pending the cost consideration process. On March 18, 2016, a coalition of 20 states led by Michigan petitioned the Court for a writ of certiorari asking the Court to declare whether an administrative rule promulgated without statutory authority may be left in effect by a reviewing court during the pendency of its review. *See State of Mich., et al. v. EPA*, Pet. for Writ of Cert. to U.S. Sup. Ct. (filed Mar. 18, 2016). On April 14, 2016 the EPA issued a final finding that it is appropriate and necessary to set standards for emissions of air toxics from coal and oil-fired power plants. This finding responded to the decision by the U.S. Supreme Court that the EPA must consider cost in the appropriate and necessary finding supporting MATS. This finding was challenged.

On February 7, 2019 the EPA proposed a revision to its response to the U.S. Supreme Court decision in *Michigan v. EPA* which held that the EPA erred by not considering cost in its determination that regulation under section 112 of the Clean Air Act of hazardous air pollutant emissions from coal- and oil-fired electric utility steam generating units is appropriate and necessary. On May 22, 2020, the EPA published a reconsideration of the appropriate and necessary

finding for the MATS, correcting flaws in the 2016 supplemental cost finding. However, the EPA is not removing coal- and oil-fired EGUs from the list of affected source categories for regulation under section 112 of the CAA, so the MATS rule remains in effect. On January 31, 2022, the EPA proposed revocation of the 2020 reconsideration noted above affirmed the previous Appropriate and Necessary finding. This proposal reaffirms the determination that it is appropriate and necessary to regulate hazardous air pollutants ("HAP"), including mercury, from power plants after considering cost and would revoke the 2020 finding that it is not appropriate and necessary to regulate coal- and oil-fired power plants under the Clean Air Act (CAA) section 112**.** EPA has reaffirmed that it remains appropriate and necessary to regulate HAP, including mercury, from power plants after considering cost. This action revokes a 2020 finding that it was not appropriate and necessary to regulate coal- and oil-fired power plants under Clean Air Act (CAA) section 112, which covers toxic air pollutants. On March 20, 2023, EPA reaffirmed that it remains appropriate and necessary to regulate HAP, including mercury, from power plants after considering cost. Additionally, on April 24, 2023, EPA published a proposal to amend the MATS rule, which included a significant reduction of the surrogate filterable particulate matter standard from current levels, among other proposed revisions. The final rule is expected by May 2024. Duke Energy will follow this rule as it develops.

In the 2011 ECRC docket, the Commission recognized that the EPA's adoption of MATS for EGUs would require the Company to modify its Integrated Clean Air Compliance Plan. See Order No. PSC-2011-0553-FOF-EI, at 11. Accordingly, consistent with the Commission's expectation that utilities "take steps to control the level of costs that must be incurred for environmental compliance," Order No. PSC-2008-0775-FOF-EI, at 7, the Commission approved the Company's request to recover costs incurred to assess the EPA's proposed rule, prepare comments to the EPA, and develop compliance strategies within the aggressive regulatory timeframes proposed by the EPA.

C. Greenhouse Gas Regulation

In 2007, then-Governor Crist issued Executive Order 07-127 directing the FDEP to promulgate regulations requiring reductions in utility CO_2 emissions. In addition, the 2008 Florida

Legislature enacted legislation authorizing the FDEP to adopt rules establishing a cap-and-trade program and requiring the FDEP to submit any such rules for legislative review and ratification. However, the FDEP did not adopt any cap-and-trade rules, and the Legislature subsequently repealed the 2008 law. Likewise, although a number of bills that would regulate GHG emissions have been introduced to Congress over the past several years, none have become law. In the meantime, the EPA began implementing a regulatory approach to reducing GHG emissions through the Clean Air Act. At this time, however, there are no GHG emission standards applicable to DEF's existing generating units.

On June 25, 2013, President Obama issued a Presidential Memorandum directing the EPA to establish GHG emission guidelines for existing power plants under Section 111(d) of the Clean Air Act. The Presidential Memorandum directed the EPA to issue proposed GHG standards, regulations, or guidelines, as appropriate, for existing power plants by no later than June 1, 2014, and issue final standards, regulations or guidelines, as appropriate, by no later than June 1, 2015. In addition, the Presidential Memorandum directed the EPA to include a requirement in the new regulations that states submit State Implementation Plans ("SIPs") to implement the new guidelines by no later than June 30, 2016.

On August 3, 2015, the EPA released the final New Source Performance Standards ("NSPS") for CO_2 emissions from existing fossil fuel-fired EGUs (also known as the Clean Power Plan or "CPP"). The final CPP established state-specific emission goals; for Florida, the goals would have begun a phased approach in 2022, ending with a rate goal of 919 lb. CO_2/MWh annual average for the period 2030 and beyond. Alternatively, the state was able adopt a mass emissions approach culminating in a 2030 target of 105,094,704 tons (existing units) or 106,641,595 tons (existing plus new units). The final CPP was challenged in the D.C. Circuit by 27 states and a number of industry groups. Oral argument occurred on September 27, 2016. The D.C. Circuit subsequently issued a stay of the litigation. Previously, on February 9, 2016, the U.S. Supreme Court had placed a stay on the CPP until such time that all litigation is completed.

On August 3, 2015, the EPA released the final NSPS for CO_2 emissions from new, modified and reconstructed fossil fuel-fired EGUs. The rule included emission limits of 1,400 lb. CO_2/MWh for new coal-fired units and 1,000 lb. CO_2/MWh for new natural gas combined-cycle

units. This rule was also challenged in the D.C. Circuit. The D.C. Circuit issued an order suspending this litigation pending a review of the rule by EPA.

On March 28, 2017, President Trump signed an Executive Order ("EO") entitled "Promoting Energy Independence and Economic Growth." The EO directed federal agencies to "immediately review existing regulations that potentially burden the development or use of domestically produced energy resources and appropriately suspend, revise, or rescind those that unduly burden the development of domestic energy resources." The EO specifically directed the EPA to review the following rules and determine whether to suspend, revise, or rescind those rules:

- The final CO_2 emission standards for existing power plants ("CPP")
- The final CO_2 emission standards for new power plants ("CO_2 NSPS")
- The proposed Federal Plan and Model Trading Rules that accompanied the CPP.

In response to the EO, the Department of Justice filed motions with the D.C. Circuit Court to stay the litigation of both the CPP and the CO_2 NSPS rules while each is reviewed by the EPA. The EO did not change the current status of the CPP which was under a legal hold by the U.S. Supreme Court. With regard to the CO_2 NSPS, that rule remained in effect pending the outcome of the EPA's review. On December 6, 2018, the EPA proposed to revise the New Source Performance Standards (NSPS) for greenhouse gas emissions from new, modified, and reconstructed fossil fuel-fired power plants. After further analysis and review, the EPA proposed to determine that the best system of emission reduction ("BSER") for newly constructed coal-fired units, is the most efficient demonstrated steam cycle in combination with the best operating practices. The EPA did not propose to amend the standards of performance for newly constructed or reconstructed stationary combustion turbines. In January 2021, EPA issued a clear framework for determining when standards are appropriate for GHG emissions from stationary source categories under the Clean Air Act (CAA) section 111(b)(1)(A). The EPA did not take final action to revise the BSER in the 2018 proposal.

On October 16, 2017, the EPA published a proposal to announce its intention to repeal the CPP. The proposal also requested public comment on the proposed rule. The EPA held public hearings on November 28 and 29, 2017, in Charleston, West Virginia, and extended the public

comment period until January 16, 2018. In response to numerous requests for additional opportunities for the public to provide oral testimony on the proposed rule in more than one location, the EPA conducted three listening sessions, and extended the public comment period until April 26, 2018.

On December 28, 2017, the EPA published an Advanced Notice of Proposed Rulemaking ("ANPR") to solicit information from the public as the agency considered proposing emission guidelines to limit GHG emissions from existing EGUs. The EPA also "solicited information on the proper respective roles of the state and federal governments in the process, as well as information on systems of emission reduction that are applicable at or to an existing EGU, information on compliance measures, and information on state planning requirements under the Clean Air Act."

On June 19, 2019, the EPA issued the Affordable Clean Energy rule ("ACE"), an effort to provide existing coal-fired electric utility generating units, or EGUs, with achievable and realistic standards for reducing greenhouse gas (GHG) emissions. This action was finalized in conjunction with two related, but separate and distinct rulemakings: (1) The repeal of the Clean Power Plan (CPP) and (2) Revised implementing regulations for ACE, ongoing emission guidelines, and all future emission guidelines for existing sources issued under the authority of the Clean Air Act (CAA) section 111(d). On January 19, 2021, the court vacated the ACE rule and remanded it back to the EPA. Vacatur means that the rule will no longer be in effect once the Mandate is issued; the Mandate is the court's directive to enforce its decision. On February 22, 2021, the court granted the EPA's motion to withhold issuance of the mandate with respect to the vacatur of the Clean Power Plan Repeal Rule until the EPA responds to the court's remand in a new rulemaking action. No party filed for Rehearing regarding the court's January 19th decision. Accordingly, on March 5, 2021, the court issued the Partial Mandate to the EPA, officially vacating the ACE rule, but withholding the mandate regarding the CPP repeal. Currently, neither the ACE rule nor Clean Power Plan rule are in effect. The parties have until April 19, 2021, to ask the Supreme Court to take the case. On October 29, 2021, the Supreme Court agreed to hear the appeal of ACE vacatur. The case was heard at the Supreme Court on February 28, 2022. On June 30, 2022, the United States Supreme Court ruled that the Clean Power Plan exceeded the powers granted to EPA by

Congress and issued a decision reversing and remanding the January 19, 2021 D.C. Circuit Court decision. Currently, neither the CPP nor the ACE rule are in effect, as the EPA is working on a replacement rule. On May 23, 2023, EPA proposed five separate actions, which include establishing GHG performance standards for fossil fuel-fired EGUs and combustion turbines as well as repealing the ACE rule. The EPA proposal aims to implement more protective GHG emission standards, which are potentially applicable to several DEF coal and natural gas combustion turbine units. DEF will continue to monitor the proposed rule, which is expected to be finalized by May 2024, and the potentially applicable requirements to the DEF emission units.

D. Status of BART Requirements under CAVR

No changes have occurred since previous filing of the Integrated Clean Air Compliance Plan, Docket No. 20230007.

E. Status of National Ambient Air Quality Standards (NAAQS)

No changes have occurred since previous filing of the Integrated Clean Air Compliance Plan, Docket No. 20230007.

F. Status of Combustion Turbine MACT

In March of 2004, the Environmental Protection Agency ("EPA") promulgated National Emission Standards for Hazardous Air Pollutants ("NESHAP") for stationary combustion turbines ("CTs") that are located at major sources of hazardous air pollutants ("HAPs") and are constructed after January 14, 2003. The NESHAP, subpart YYYY, implements section 112(d) of the Clean Air Act ("CAA") by requiring all major combustion turbine sources to meet HAP emission standards reflecting the application of the maximum achievable control technology ("MACT"). In April 2004, the EPA stayed the effectiveness of the rule for the lean premix and diffusion flame gas-fired sub-categories of stationary combustion turbines. The EPA concluded that a stay was necessary to avoid unnecessary expenditures on compliance as they evaluated a delisting petition for these two sub-categories of turbines.

On March 9, 2022, the EPA published in the *Federal Register*, at 87 Fed. Reg.13,183, a final rule to remove the stay for natural gas-fired stationary CTs. As a result of the final rule, lean premix and diffusion flame gas-fired turbines that were constructed or reconstructed at major sources of HAP emissions after January 14, 2003, must comply with emission and operating limitations beginning March 9, 2022, or upon startup of future affected units. Owners/operators will then have 180 days to demonstrate compliance with the formaldehyde standard, i.e., September 5, 2022. *See* 40 C.F.R. §63.6110(a).

Under the EPA's definition of major source, DEF's Citrus County Combined Cycle (Units 1A, 1B, 2A, 2B), are subject to the rule and associated compliance requirements. Hines Energy Complex and Bartow Combined Cycle were successfully reclassified as an Area Source and are therefore no longer subject to the rule.

Due to ongoing litigation, EPA is evaluating the potential to regulate additional units and pollutants under Section 112 of CAA. DEF will continue to monitor developments and update the Commission.

III. DEF's Integrated Clean Air Compliance Plan

No changes have occurred since previous filing of the Integrated Clean Air Compliance Plan, Docket No. 20230007.

A. Visibility Requirements

No changes have occurred since previous filing of the Integrated Clean Air Compliance Plan, Docket No. 20230007.

IV. Efficacy of DEF's Plan

A. Project Milestones

No changes have occurred since previous filing of the Integrated Clean Air Compliance Plan, Docket No. 20230007.

B. Projects

No changes have occurred since previous filing of the Integrated Clean Air Compliance Plan, Docket No. 20230007.

V. Conclusion

DEF has completed installation of the emission controls contemplated in its approved Plan D on time and within budget. The FGD and SCR systems at CR Units 4 and 5 have enabled DEF to comply with CAIR, and subsequently the CSAPR requirements and will continue to be the cornerstone of DEF's integrated air quality compliance strategy for years to come. DEF is confident that Plan D, along with the other compliance strategies discussed in the document, has enabled the Company to achieve and maintain compliance with applicable regulations, including MATS, in a cost-effective manner.