



Stephanie A. Cuello
SENIOR COUNSEL

July 29, 2022

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. 20220007-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 2022 Actual/Estimated True-Up Report. The filing includes the following:

- DEF's Petition for Approval of Environmental Cost Recovery Actual/Estimated True-Up for the period January 2022 to December 2022;
- Direct Testimony of Gary P. Dean, Exhibit No. ___ (GPD-3);
- Direct Testimony of Reginald Anderson;
- Direct Testimony of Eric Szkolnyj; and
- Direct Testimony of Kim Spence McDaniel.

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
Attachments

CERTIFICATE OF SERVICE

Docket No. 20220001-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 20th day of June, 2022.

s/ Stephanie A. Cuello

Stephanie A. Cuello

<p>Suzanne Brownless Ryan Sandy Office of General Counsel FL Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 sbrownle@psc.state.fl.us rsandy@psc.state.fl.us</p> <p>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</p> <p>Kenneth A. Hoffman Florida Power & Light Company 134 W. Jefferson Street Tallahassee, FL 32301-1713 kenhoffman@fpl.com</p> <p>Jon C. Moyle, Jr. Moyle Law Firm, P.A. FIPUG 118 North Gadsden Street Tallahassee, FL 32301 jmoyle@moylelaw.com mqualls@moylelaw.com</p> <p>Corey Allain Nucor Steel Florida, Inc. 22 Nucor Drive Frostproof, FL 33843 corey.allain@nucor.com</p>	<p>Anastacia Pirrello / Richard Gentry Office of Public Counsel 111 W. Madison St., Room 812 Tallahassee, FL 32399-1400 pirrello.anastacia@leg.state.fl.us gentry richard@leg.state.fl.us</p> <p>Paula K. Brown Regulatory Affairs Tampa Electric Company P.O. Box 111 Tampa, FL 33601-0111 regdept@tecoenergy.com</p> <p>Maria Moncada / David Lee Florida Power & Light Company 700 Universe Blvd. (LAW/JB) Juno Beach, FL 33408-0420 david.lee@fpl.com maria.moncada@fpl.com</p> <p>James Brew / Laura W. Baker Stone Mattheis Xenopoulos & Brew, P.C. White Springs/PCS Phosphate 1025 Thomas Jefferson St., N.W. Eighth Floor, West Tower Washington, DC 20007 jbrew@smxblaw.com lwb@smxblaw.com</p>	<p>Mike Cassel Florida Public Utilities Company 208 Wildlight Avenue Yulee, FL 32097 mcassel@fpuc.com</p> <p>Michelle D. Napier Florida Public Utilities Company 1635 Meathe Drive West Palm Beach, FL 33411 mnapier@fpuc.com</p> <p>Beth Keating Gunster, Yoakley & Stewart, P.A. FPUC 215 South Monroe Street, Suite 601 Tallahassee, FL 32301 bkeating@gunster.com</p> <p>Robert Scheffel Wright John T. LaVia, III Florida Retail Federation Gardner, Bist, Bowden, Dee, LaVia, Wright, Perry, & Harper, P.A. 1300 Thomaswood Drive Tallahassee, FL 32308 schef@gbwlegal.com jlavia@gbwlegal.com</p> <p>Peter J. Mattheis Michael K. Lavanga Joseph R. Briscar Stone, Mattheis, Xenopoulos, & Brew P.C. Nucor 1025 Thomas Jefferson Street, NW Eighth Floor, West Tower Washington, DC 20007 pjm@smxblaw.com mkl@smxblaw.com jrb@smxblaw.com</p>
---	---	--

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental Cost Recovery Clause

Docket No. 20220007-EI

Filed: July 29, 2022

DUKE ENERGY FLORIDA’S PETITION FOR APPROVAL OF 2022 ENVIRONMENTAL COST RECOVERY ACTUAL/ESTIMATED TRUE-UP

Duke Energy Florida, LLC (“the Company”), hereby petitions for approval of its Environmental Cost Recovery Clause (“ECRC”) actual/estimated true-up for the period January 2022 to December 2022. In support of this Petition, the Company states:

1. As discussed in the testimony of Gary P. Dean filed contemporaneously with this Petition, the Company’s total actual/estimated true-up for this period is an over-recovery, including interest, of \$1,250,853.

2. The amount will have added to it the final true-up over-recovery of \$447,153 for 2021 discussed in Mr. Dean’s April 1, 2022, Direct Testimony filed in this docket, resulting in a net over-recovery of \$1,698,006. Documentation supporting the actual/estimated and net true-up over-recovery is contained in Commission Schedules 42-1E through 42-9E, which are provided as Exhibit No. ___ (GPD-3) to Mr. Dean’s testimony of today’s date. Additional cost information for specific ECRC programs is presented in the testimonies of Reginald Anderson, Kim Spence McDaniel, and Eric Szkolnyj which also are being filed contemporaneously with this Petition.

2. The ECRC actual/estimated true-up presented in Mr. Dean’s testimony and exhibits are consistent with the provisions of Section 366.8255, Florida Statute, and with prior rulings by the Florida Public Service Commission (“the Commission”).

WHEREFORE, the Company, respectfully requests that the Commission approve the Company’s ECRC actual/estimated true-up over-recovery of \$1,698,006 for the period January

2022 through December 2022 as set forth herein and in the Direct Testimony and supporting Exhibits of Mr. Dean.

This 29th day of July, 2022.

Respectfully submitted,

s/ Stephanie A. Cuello

DIANNE M. TRIPLETT

Deputy General Counsel

299 1st Avenue North

St. Petersburg, Florida 33701

T: (727) 820-4692

F: (727) 820-5041

E: dianne.triplett@duke-energy.com

MATTHEW R. BERNIER

Associate General Counsel

T: (850) 521-1428

F: (727) 820-5041

E: matthew.bernier@duke-energy.com

STEPHANIE A. CUELLO

Senior Counsel

106 East College Avenue

Suite 800

Tallahassee, Florida 32301

T: 850.521.1425

F: 727.820.5041

E: Stephanie.Cuello@duke-energy.com

FLRegulatoryLegal@duke-energy.com

Attorneys for Duke Energy Florida, LLC

CERTIFICATE OF SERVICE

Docket No. 20220007-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 29th day of July, 2022.

/s/ Matthew R. Bernier

Attorney

<p>Jacob Imig Office of General Counsel Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850 jimig@psc.state.fl.us</p> <p>J. Wahlen / M. Means / V. Ponder Tampa Electric Company Ausley McMullen P.O. Box 391 Tallahassee, FL 32302 jwahlen@ausley.com mmeans@ausley.com vponder@ausley.com</p> <p>Jon C. Moyle, Jr. Florida Industrial Power Users Group Moyle Law Firm, P.A. 118 North Gadsden Street Tallahassee, FL 32301 jmoyle@moylelaw.com mqualls@moylelaw.com</p> <p>Corey Allain Nucor Steel Florida, Inc. 22 Nucor Drive Frostproof FL 33843 corey.allain@nucor.com</p> <p>Maria Jose Moncada 700 Universe Boulevard (LAW/JB) Juno Beach, FL 33408-0420 maria.moncada@fpl.com</p>	<p>Richard Gentry / P. Christensen / C. Rehwinkel / S. Morse / Steven Baird 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 gentry.richard@leg.state.fl.us morse.stephanie@leg.state.fl.us rehwinkel.charles@leg.state.fl.us baird.steven@leg.state.fl.us</p> <p>Paula K. Brown Tampa Electric Company Regulatory Affairs P.O. Box 111 Tampa, FL 33601 regdept@tecoenergy.com</p> <p>James W. Brew / Laura Wynn Baker / Peter J. Mattheis / Michael K. Lavanga / Joseph R. Briscar PCS Phosphate-White Springs c/o Stone Law Firm 1025 Thomas Jefferson Street, N.W. Eighth Floor, West Tower Washington, DC 20007 jbrew@smxblaw.com lwb@smxblaw.com jrb@smxblaw.com mkl@smxblaw.com pjm@smxblaw.com</p> <p>Kenneth Hoffman Florida Power & Light Company 134 W. Jefferson Street Tallahassee, FL 32301-1713 ken.hoffman@fpl.com</p>
--	---

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

GARY P. DEAN

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20220007-EI

July 29, 2022

1 **Q. Please state your name and business address.**

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

4

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

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

8

9 **Q. Have you previously filed testimony before this Commission in Docket No.**

10 **20220007-EI?**

11 A. Yes, I provided direct testimony on April 1, 2022.

12

13 **Q. Has your job description, education, background and professional**
14 **experience changed since that time?**

15 A. No.

16

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to present, for Commission review and approval,
3 Duke Energy Florida, LLC's ("DEF") actual/estimated true-up costs associated
4 with environmental compliance activities for the period January 2022 through
5 December 2022. I also explain the variance between 2022 actual/estimated cost
6 projections versus original 2022 cost projections for SO₂/NO_x Emission
7 Allowances (Project 5).

8

9 **Q. Have you prepared or caused to be prepared under your direction,**
10 **supervision or control any exhibits in this proceeding?**

11 A. Yes. I am sponsoring the following exhibit:

12 1. Exhibit No. __ (GPD-3), which consists of PSC Forms 42-1E through 42-
13 9E.

14 This exhibit provides detail on DEF's actual/estimated true-up capital and O&M
15 environmental costs and revenue requirements for the period January 2022
16 through December 2022.

17

18 **Q. What is the actual/estimated true-up amount for which DEF is requesting**
19 **recovery for the period of January 2022 through December 2022?**

20 A. The 2022 actual/estimated true-up is an over-recovery, including interest, of
21 \$1,250,853 as shown on Form 42-1E, line 4. The final 2021 true-up over-recovery
22 of \$447,153 as shown on Form 42-2E, Line 7a, is added to this total, resulting in
23 a net over-recovery of \$1,698,006 as shown on Form 42-2E, Line 11. The

1 calculations supporting the 2022 actual/estimated true-up are on Forms 42-1E
2 through 42-9E.

3

4 **Q. What capital structure, components and cost rates did DEF rely on to calculate**
5 **the revenue requirement rate of return for the period January 2022 through**
6 **December 2022?**

7 A. The capital structure, components and cost rates relied on to calculate the revenue
8 requirement rate of return for the period January 2022 through December 2022
9 are shown on Form 42-9E. This form includes the derivation of debt and equity
10 components used in the Return on Average Net Investment, lines 7 (a) and (b), on
11 Form 42-8E. Form 42-9E also cites the source and includes the rationale for using
12 the particular capital structure and cost rates.

13

14 **Q. How do actual/estimated O&M expenditures for January 2022 through**
15 **December 2022 compare with original projections?**

16 A. Form 42-4E shows that total O&M project costs are estimated to be \$7,993,851.
17 This is \$500k, or 6% lower than originally projected. This form also lists
18 individual O&M project variances. Explanations for these variances are included
19 in the Direct Testimonies of Reginald Anderson, Kim Spence McDaniel, and Eric
20 Szkolnyj.

21

22 **Q. How do estimated/actual capital recoverable costs for January 2022 through**
23 **December 2022 compare with DEF's original projections?**

1 A. Form 42-6E shows that total recoverable capital costs are estimated to be
2 \$4,404,485. This is \$45k or 1% lower than originally projected. This form also
3 lists individual project variances. The return on investment, depreciation expense
4 and property taxes for each project for the actual/estimated period are provided
5 on Form 42-8E, pages 1 through 18. Explanations for these variances are included
6 in the Direct Testimonies of Mr. Anderson, Ms. McDaniel, and Mr. Szkolnyj.

7
8 **Q. Please explain the O&M variance between actual project expenditures and**
9 **the Actual/Estimated projections for the SO₂/NO_x Emissions Allowance**
10 **(Project 5).**

11 A. The O&M variance is \$10,383, or 73% lower than projected, due to lower-than-
12 projected SO₂ allowance expense.

13
14 **Q. Does this conclude your testimony?**

15 A. Yes.

16

17

18

19

20

21

**DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Commission Forms 42-1E Through 42-9E**

**January 2022 - December 2022
Calculation for the Current Period Actual / Estimated Amount
Actuals for the Period January 2022 - June 2022
Estimates for the Period July 2022 - December 2022**

Docket No. 20220007-EI

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022
(in Dollars)

Form 42-1E

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. __ (GPD-3)
Page 2 of 18

<u>Line</u>	<u>Period Amount</u>
1 Over/(Under) Recovery for the Period (Form 42-2E, Line 5)	\$ 1,227,433
2 Interest Provision (Form 42-2E, Line 6)	23,420
3 Sum of Current Period Adjustments (Form 42-2E, Line 10)	<u>0</u>
4 Final True-Up Amount to be Refunded/(Recovered) in the Projection Period January 2023 to December 2023 (Lines 1 + 2 + 3)	<u>\$ 1,250,853</u>

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42-2E

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. __ (GPD-3)
Page 3 of 18

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

Line	Description	Actual Jan-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	End of Period Total
1	ECRC Revenues (net of Revenue Taxes)	\$849,098	\$788,076	\$823,978	\$782,706	\$879,649	\$1,045,131	\$1,088,774	\$1,053,664	\$981,877	\$869,823	\$761,224	\$804,202	\$10,728,203
2	True-Up Provision (Order No. PSC-2021-0426-FOF-EI)	152,353	152,353	152,353	152,353	152,353	152,353	152,353	152,353	152,353	152,353	152,353	152,353	1,828,238
3	ECRC Revenues Applicable to Period (Lines 1 + 2)	\$1,001,451	940,429	976,331	935,059	1,032,002	1,197,484	1,241,127	1,206,018	1,134,230	1,022,177	913,578	956,555	12,556,440
4	Jurisdictional ECRC Costs													
	a. O & M Activities (Form 42-5E, Line 9)	\$334,753	787,439	209,195	945,526	620,201	372,491	782,134	730,154	858,427	685,288	446,606	536,970	7,309,184
	b. Capital Investment Projects (Form 42-7E, Line 9)	306,414	308,320	309,048	346,812	343,169	341,466	344,631	343,676	343,877	341,810	346,333	344,267	4,019,823
	c. Other	0	0	0	0	0	0	0	0	0	0	0	0	0
	d. Total Jurisdictional ECRC Costs	\$641,167	\$1,095,759	\$518,243	\$1,292,338	\$963,370	\$713,957	\$1,126,765	\$1,073,830	\$1,202,304	\$1,027,098	\$792,939	\$881,237	\$11,329,007
5	Over/(Under) Recovery (Line 3 - Line 4d)	\$360,283	(155,330)	458,088	(357,279)	68,632	483,528	114,362	132,188	(68,074)	(4,922)	120,639	75,318	\$1,227,433
6	Interest Provision (Form 42-3E, Line 10)	214	373	699	936	1,314	2,469	3,243	3,205	3,033	2,760	2,625	2,549	23,420
7	Beginning Balance True-Up & Interest Provision	1,828,238	2,036,382	1,729,072	2,035,506	1,526,810	1,444,403	1,778,046	1,743,298	1,726,337	1,508,943	1,354,429	1,325,339	1,828,238
	a. Deferred True-Up - January 2021 to December 2021 (2021 TU filing dated April 1, 2022)	447,153	447,153	447,153	447,153	447,153	447,153	447,153	447,153	447,153	447,153	447,153	447,153	447,153
8	True-Up Collected/(Refunded) (Line 2)	(152,353)	(152,353)	(152,353)	(152,353)	(152,353)	(152,353)	(152,353)	(152,353)	(152,353)	(152,353)	(152,353)	(152,353)	(1,828,238)
9	End of Period Total True-Up (Lines 5+6+7+7a+8)	\$2,483,535	2,176,225	2,482,659	1,973,963	1,891,556	2,225,199	2,190,451	2,173,491	1,956,097	1,801,582	1,772,492	1,698,006	\$1,698,006
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)	\$2,483,535	\$2,176,225	\$2,482,659	\$1,973,963	\$1,891,556	\$2,225,199	2,190,451	\$2,173,491	\$1,956,097	\$1,801,582	\$1,772,492	\$1,698,006	\$1,698,006

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42-3E

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. ___ (GPD-3)
Page 4 of 18

Interest Provision
(in Dollars)

Line	Description	Actual Jan-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	End of Period Total
1	Beginning True-Up Amount (Form 42-2E, Lines 7 + 7a + 10)	\$2,275,391	\$2,483,535	\$2,176,225	\$2,482,659	\$1,973,963	\$1,891,556	\$2,225,199	\$2,190,451	\$2,173,491	\$1,956,097	\$1,801,582	\$1,772,492	
2	Ending True-Up Amount Before Interest (Line 1 + Form 42-2E, Lines 5 + 8)	2,483,321	2,175,852	2,481,960	1,973,027	1,890,242	2,222,730	2,187,208	2,170,286	1,953,064	1,798,822	1,769,867	1,695,457	
3	Total of Beginning & Ending True-Up (Lines 1 + 2)	4,758,712	4,659,387	4,658,185	4,455,686	3,864,205	4,114,286	4,412,407	4,360,736	4,126,554	3,754,918	3,571,449	3,467,950	
4	Average True-Up Amount (Line 3 x 1/2)	2,379,356	2,329,694	2,329,093	2,227,843	1,932,103	2,057,143	2,206,204	2,180,368	2,063,277	1,877,459	1,785,725	1,733,975	
5	Interest Rate (Last Business Day of Prior Month)	0.08%	0.14%	0.24%	0.49%	0.52%	1.12%	1.76%	1.76%	1.76%	1.76%	1.76%	1.76%	
6	Interest Rate (Last Business Day of Current Month)	0.14%	0.24%	0.49%	0.52%	1.12%	1.76%	1.76%	1.76%	1.76%	1.76%	1.76%	1.76%	
7	Total of Beginning & Ending Interest Rates (Lines 5 + 6)	0.22%	0.38%	0.73%	1.01%	1.64%	2.88%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	
8	Average Interest Rate (Line 7 x 1/2)	0.110%	0.190%	0.365%	0.505%	0.820%	1.440%	1.760%	1.760%	1.760%	1.760%	1.760%	1.760%	
9	Monthly Average Interest Rate (Line 8 x 1/12)	0.009%	0.016%	0.030%	0.042%	0.068%	0.120%	0.147%	0.147%	0.147%	0.147%	0.147%	0.147%	
10	Interest Provision for the Month (Line 4 x Line 9)	\$214	\$373	\$699	\$936	\$1,314	\$2,469	\$3,243	\$3,205	\$3,033	\$2,760	\$2,625	\$2,549	23,420

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Variance Report of O&M Activities
(In Dollars)

Form 42-4E

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. __ (GPD-3)
Page 5 of 18

Line	Description	(1) Actual / Estimated	(2) Projection Filing	(3) Variance Amount	(4) Percent
1	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	3,751	14,134	(10,383)	-73%
6	Phase II Cooling Water Intake 316(b) - Base	144,393	20,000	124,393	622%
6.a	Phase II Cooling Water Intake 316(b) - Intm	41,666	260,000	(218,334)	-84%
7.2	CAIR/CAMR - Peaking	0	0	0	0%
7.4	CAIR/CAMR Crystal River - Base	0	0	0	0%
7.4	CAIR/CAMR Crystal River - Energy	6,929,623	7,560,224	(630,601)	-8%
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	170,448	0	170,448	100%
8	Arsenic Groundwater Standard - Base	47,370	74,401	(27,031)	-36%
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	37,607	31,400	6,207	20%
17	Mercury & Air Toxic Standards (MATS) CR4 & CR5 - Energy	215,822	191,182	24,641	13%
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	403,171	342,830	60,340	18%
2	Total O&M Activities - Recoverable Costs	\$7,993,851	\$8,494,170	(\$500,319)	-6%
3	Recoverable Costs Allocated to Energy	7,589,974	8,139,770	(549,795)	-7%
4	Recoverable Costs Allocated to Demand	\$403,877	\$354,401	\$49,476	14%

Notes:

Column (1) End of Period Totals on Form 42-5E
Column (2) 2022 Projection Filing Form 42-2P
Column (3) = Column (1) - Column (2)
Column (4) = Column (3) / Column (2)

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42-5E

Docket No. 20220007-EI
 Duke Energy Florida
 Witness: G. P. Dean
 Exh. No. ___ (GPD-3)
 Page 6 of 18

O&M Activities
(in Dollars)

Line	Description	Actual Jan-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	End of Period Total
1	O&M Activities - System													
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	87	0	1,313	0	1,229	0	156	139	145	98	343	240	3,751
6	Phase II Cooling Water Intake 316(b) - Base	0	0	0	13,009	26,737	(15,353)	20,000	20,000	20,000	20,000	20,000	20,000	144,393
6a	Phase II Cooling Water Intake 316(b) - Intm	0	0	0	0	0	0	0	0	0	0	20,833	20,833	41,666
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	321,724	780,688	61,390	922,869	597,326	384,364	815,837	753,333	803,022	679,116	366,077	443,876	6,929,623
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	60,266	5,182	0	80,000	25,000	0	0	170,448
8	Arsenic Groundwater Standard - Base	2,228	3,121	5,719	5,497	900	4,234	1,176	3,980	2,480	3,235	9,000	5,800	47,370
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 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	0	0	6,115	6,629	0	0	0	11,023	6,641	7,199	0	37,607
17	Mercury & Air Toxic Standards (MATS) CR4 & CR5 - Energy	1,908	18,254	130,935	29,871	25,183	580	0	0	0	9,091	0	0	215,822
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	34,930	30,381	21,929	31,797	40,515	(1,497)	25,636	30,636	25,636	25,636	49,136	88,436	403,171
2	Total O&M Activities - Recoverable Costs	\$360,878	\$832,445	\$221,287	\$1,009,158	\$698,519	\$432,594	\$867,987	\$808,088	\$942,306	\$768,817	\$472,588	\$579,185	\$7,993,851
3	Recoverable Costs Allocated to Energy	358,650	829,324	215,568	990,652	670,883	383,447	841,629	784,108	839,826	720,582	422,755	532,552	7,589,974
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	2,228	3,121	5,719	18,506	27,637	49,147	26,358	23,980	102,480	48,235	29,000	25,800	362,211
	Recoverable Costs Allocated to Demand - Prod-Intm	0	0	0	0	0	0	0	0	0	0	20,833	20,833	41,666
	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	0.92760	0.94600	0.94580	0.93710	0.88620	0.85240	0.90023	0.90279	0.90883	0.88886	0.94919	0.92876	
6	Retail Transmission Demand Jurisdictional Factor	0.71994	0.71994	0.71994	0.71994	0.71994	0.71994	0.71994	0.71994	0.71994	0.71994	0.71994	0.71994	
	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	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	
	Retail Production Demand Jurisdictional Factor - Intm	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	
	Retail Production Demand Jurisdictional Factor - Peaking	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	
	Retail Production Demand Jurisdictional Factor - A&G	0.95415	0.95415	0.95415	0.95415	0.95415	0.95415	0.95415	0.95415	0.95415	0.95415	0.95415	0.95415	
7	Jurisdictional Energy Recoverable Costs (A)	332,684	784,540	203,884	928,340	594,536	326,851	757,657	707,885	763,259	640,495	401,275	494,611	6,936,017
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)	2,069	2,899	5,311	17,186	25,665	45,640	24,477	22,269	95,168	44,793	26,931	23,959	336,367
	Jurisdictional Demand Recoverable Costs - Prod-Intm (B)	0	0	0	0	0	0	0	0	0	0	18,400	18,400	36,800
	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 - O&M Activities (Lines 7 + 8)	\$334,753	\$787,439	\$209,195	\$945,526	\$620,201	\$372,491	\$782,134	\$730,154	\$858,427	\$685,288	\$446,606	\$536,970	\$7,309,184

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

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42-6E

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. ___ (GPD-3)
Page 7 of 18

Variance Report of Capital Investment Activities
(in Dollars)

Line	Description	(1) Actual / Estimated	(2) Projection Filing	(3) Variance Amount	(4) Percent
1	Capital Investment Activities - System				
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	241,519	242,867	(1,348)	-1%
6	Phase II Cooling Water Intake 316(b)	1,346,896	1,455,931	(109,035)	-7%
7.x	CAIR/CAMR	317,744	231,778	85,966	37%
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)	315,160	316,715	(1,555)	0%
16	National Pollutant Discharge Elimination System (NPDES)	1,236,832	1,250,955	(14,123)	-1%
17x	Mercury & Air Toxics Standards (MATS)	418,053	420,023	(1,970)	0%
18	Coal Combustion Residual (CCR) Rule	528,281	530,878	(2,597)	0%
2	Total Capital Investment Activities - Recoverable Costs	\$4,404,485	\$4,449,147	(\$44,662)	-1%
3	Recoverable Costs Allocated to Energy	\$977,316	\$894,668	\$82,648	9%
4	Recoverable Costs Allocated to Demand	\$3,427,169	\$3,554,479	(\$127,310)	-4%

Notes:

Column (1) End of Period Totals on Form 42-7E
Column (2) 2022 Projection Filing Form 42-3P
Column (3) = Column (1) - Column (2)
Column (4) = Column (3) / Column (2)

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42-7E

Docket No. 20220007-EI
 Duke Energy Florida
 Witness: G. P. Dean
 Exh. No. ___ (GPD-3)
 Page 8 of 18

Capital Investment Projects-Recoverable Costs
(in Dollars)

Line	Description	Actual Jan-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	End of Period Total
1	Investment Projects - System (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	20,140	20,140	20,135	20,131	20,127	20,123	20,123	20,122	20,121	20,121	20,119	20,117	241,519
6	Phase II Cooling Water Intake 316(b) - Base	80,832	80,781	80,716	121,983	121,833	121,727	122,316	123,164	123,333	123,183	122,961	122,701	1,345,530
6.1	Phase II Cooling Water Intake 316(b) - Base - Bartow	0	0	0	0	0	0	0	0	0	152	455	759	1,366
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	23,867	24,219	25,555	26,192	27,420	29,332	28,254	26,581	26,581	26,581	26,581	26,581	317,744
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
11.1	Crystal River Thermal Discharge Compliance Project - Base (Post 2012)	0	0	0	0	0	0	0	0	0	0	0	0	0
11.1	Crystal River Thermal Discharge Compliance Project - Base (2012)	0	0	0	0	0	0	0	0	0	0	0	0	0
15.1	Effluent Limitation Guidelines CRN (ELG) - Base	26,636	26,569	26,501	26,433	26,365	26,297	26,229	26,162	26,094	26,026	25,958	25,890	315,160
16	National Pollutant Discharge Elimination System (NPDES) - Intermediate	104,265	104,048	103,830	103,613	103,395	103,178	102,961	102,743	102,526	102,308	102,091	101,874	1,236,832
17	Mercury & Air Toxic Standards (MATS) CR4 & CR5 - Energy	35,365	35,269	35,173	35,078	34,982	34,885	34,789	34,694	34,598	34,502	34,407	34,311	418,053
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 - Base	44,044	44,586	44,470	44,358	44,246	44,133	44,021	43,909	43,797	43,685	43,572	43,460	528,281
2	Total Investment Projects - Recoverable Costs	\$335,149	\$335,612	\$336,380	\$377,788	\$378,368	\$379,675	\$378,693	\$377,375	\$377,050	\$376,558	\$376,144	\$375,693	\$4,404,485
3	Recoverable Costs Allocated to Energy	79,372	79,628	80,863	81,401	82,529	84,340	83,166	81,397	81,300	81,204	81,107	81,009	977,316
	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	151,512	151,936	151,687	192,774	192,444	192,157	192,566	193,235	193,224	193,046	192,946	192,810	2,190,337
	Recoverable Costs Allocated to Demand - Production - Intermediate	104,265	104,048	103,830	103,613	103,395	103,178	102,961	102,743	102,526	102,308	102,091	101,874	1,236,832
	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	0.92760	0.94600	0.94580	0.93710	0.88620	0.85240	0.90023	0.90279	0.90883	0.88886	0.94919	0.92876	
	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	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	
	Retail Demand Jurisdictional Factor - Production - Intermediate	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	
	Retail Demand Jurisdictional Factor - Production - Peaking	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	0.90678	
7	Jurisdictional Energy Recoverable Costs (B)	73,625	75,328	76,480	76,281	73,137	71,892	74,869	73,484	73,888	72,179	76,986	75,238	893,386
	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)	140,702	141,095	140,864	179,020	178,713	178,447	178,826	179,448	179,437	179,272	179,179	179,053	2,034,056
	Jurisdictional Demand Recoverable Costs - Production - Intermediate (C)	92,088	91,896	91,704	91,512	91,319	91,128	90,936	90,743	90,552	90,359	90,168	89,976	1,092,380
	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 - Investment Projects (Lines 7 + 8)	\$306,414	\$308,320	\$309,048	\$346,812	\$343,169	\$341,466	\$344,631	\$343,676	\$343,877	\$341,810	\$346,333	\$344,267	\$4,019,823

Notes:
 (A) Each project's Total System Recoverable Expenses on Form 42-8E, Line 9; Form 42-8E, 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
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42-8E
Page 1 of 9

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. __ (GPD-3)
Page 9 of 18

SO2 and NOx EMISSIONS ALLOWANCES - Energy (Project 5)
(in Dollars)

Line	Description	Beginning of Period Amount	Actual Jan-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	End of Period Total
1	Working Capital Dr (Cr)														
	a. 0158150 SO ₂ Emission Allowance Inventory	\$3,212,783	\$3,212,696	\$3,212,696	\$3,211,382	\$3,211,382	\$3,210,153	\$3,210,153	\$3,209,997	\$3,209,858	\$3,209,714	\$3,209,615	\$3,209,272	\$3,209,032	\$3,209,032
	b. 0254020 Auctioned SO ₂ 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	\$3,212,783	\$3,212,696	\$3,212,696	\$3,211,382	\$3,211,382	\$3,210,153	\$3,210,153	\$3,209,997	\$3,209,858	\$3,209,714	\$3,209,615	\$3,209,272	\$3,209,032	\$3,209,032
3	Average Net Investment		\$3,212,739	\$3,212,696	\$3,212,039	\$3,211,382	\$3,210,768	\$3,210,153	\$3,210,075	\$3,209,928	\$3,209,786	\$3,209,665	\$3,209,444	\$3,209,152	
4	Return on Average Net Working Capital Balance (B)														
	a. Debt Component		1.62%												
	b. Equity Component Grossed Up For Taxes		5.90%												
5	Total Return Component (C)		\$20,140	\$20,140	\$20,135	\$20,131	\$20,127	\$20,123	\$20,123	\$20,122	\$20,121	\$20,121	\$20,119	\$20,117	241,519
6	Expense Dr (Cr)														
	a. 0509030 SO ₂ Allowance Expense		\$87	\$0	\$1,313	\$0	\$1,229	\$0	\$156	\$139	\$145	\$98	\$343	\$240	3,751
	b. 0407426 Amortization Expense		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
	d. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
7	Net Expense (D)		87	0	1,313	0	1,229	0	156	139	145	98	343	240	3,751
8	Total System Recoverable Expenses (Lines 5 + 7)		\$20,227	\$20,140	\$21,448	\$20,131	\$21,356	\$20,123	\$20,279	\$20,261	\$20,266	\$20,219	\$20,462	\$20,357	245,270
	a. Recoverable Costs Allocated to Energy		20,227	20,140	21,448	20,131	21,356	20,123	20,279	20,261	20,266	20,219	20,462	20,357	245,270
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Energy Jurisdictional Factor		0.92760	0.94600	0.94580	0.93710	0.88620	0.85240	0.90023	0.90279	0.90883	0.88886	0.94919	0.92876	
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)		\$18,763	\$19,052	\$20,286	\$18,865	\$18,926	\$17,153	\$18,255	\$18,291	\$18,418	\$17,972	\$19,422	\$18,907	224,311
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 11 + 12)		\$ 18,763	\$ 19,052	\$ 20,286	\$ 18,865	\$ 18,926	\$ 17,153	\$ 18,255	\$ 18,291	\$ 18,418	\$ 17,972	\$ 19,422	\$ 18,907	224,311

Notes:

- (A) N/A
- (B) Line 3 x 7.52% x 1/12. Based on ROE of 9.85%, weighted cost of equity component of capital structure of 4.34% 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
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42 8E
Page 2 of 9

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. ___ (GPD-3)
Page 10 of 18

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-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	End of Period Total
1	Investments														
	a. Expenditures/Additions		(\$8,028)	(\$8,422)	(\$12,268)	\$17,825	\$17,047	\$31,889	\$238,983	\$114,000	\$23,000	\$11,798	\$0	\$0	\$425,824
	b. Clearings to Plant		0	0	12,869,957	0	0	0	0	0	0	0	0	0	0
	c. Retirements		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
2	Plant-in-Service/Depreciation Base	\$0	0	0	12,869,957	12,869,957	12,869,957	12,869,957	12,869,957	12,869,957	12,869,957	12,869,957	12,869,957	12,869,957	12,869,957
3	Less: Accumulated Depreciation	\$0	0	0	0	(41,379)	(82,758)	(124,137)	(165,516)	(206,895)	(248,274)	(289,653)	(331,032)	(372,411)	
4	CWIP - Non-Interest Bearing	\$12,898,675	12,890,647	12,882,225	0	17,825	34,872	66,761	305,744	419,744	442,744	454,542	454,542	454,542	
5	Net Investment (Lines 2 + 3 + 4)	\$12,898,675	\$12,890,647	\$12,882,225	\$12,869,957	\$12,846,403	\$12,822,071	\$12,812,581	\$13,010,185	\$13,082,806	\$13,064,427	\$13,034,846	\$12,993,467	\$12,952,088	
6	Average Net Investment		\$12,894,661	\$12,886,436	\$12,876,091	\$12,858,180	\$12,834,237	\$12,817,326	\$12,911,383	\$13,046,495	\$13,073,616	\$13,049,636	\$13,014,156	\$12,972,777	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.62%	17,450	17,439	17,425	17,401	17,369	17,346	17,473	17,656	17,692	17,660	17,612	17,556	210,079
	b. Equity Component Grossed Up For Taxes	5.90%	63,382	63,342	63,291	63,203	63,085	63,002	63,464	64,129	64,262	64,144	63,970	63,766	763,040
	c. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses														
	a. Depreciation (C)	3.8582%	0	0	0	41,379	41,379	41,379	41,379	41,379	41,379	41,379	41,379	41,379	372,411
	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)	0.000497	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)		\$80,832	\$80,781	\$80,716	\$121,983	\$121,833	\$121,727	\$122,316	\$123,164	\$123,333	\$123,183	\$122,961	\$122,701	1,345,530
	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		\$80,832	\$80,781	\$80,716	\$121,983	\$121,833	\$121,727	\$122,316	\$123,164	\$123,333	\$123,183	\$122,961	\$122,701	1,345,530
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)		0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	
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)		75,065	75,017	74,957	113,280	113,140	113,042	113,589	114,376	114,533	114,394	114,188	113,946	1,249,526
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$75,065	\$75,017	\$74,957	\$113,280	\$113,140	\$113,042	\$113,589	\$114,376	\$114,533	\$114,394	\$114,188	\$113,946	\$1,249,526

Notes:

- (A) N/A
- (B) Line 6 x 7.52% x 1/12. Based on ROE of 9.85%, weighted cost of equity component of capital structure of 4.34% 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 2021 Effective Tax Rate on original cost.
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42 8E
Page 3 of 9

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. ___ (GPD-3)
Page 11 of 18

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-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	End of Period Total
1	Investments														
	a. Expenditures/Additions		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$48,425	\$48,426	\$48,426	\$145,277
	b. Clearings to Plant		0	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	0
	d. Other (A)		0	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	0
3	Less: Accumulated Depreciation	0	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	48,425	96,851	145,277	
5	Net Investment (Lines 2 + 3 + 4)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$48,425	\$96,851	\$145,277	
6	Average Net Investment		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,213	\$72,638	\$121,064	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.62%	0	0	0	0	0	0	0	0	0	33	98	164	295
	b. Equity Component Grossed Up For Taxes	5.90%	0	0	0	0	0	0	0	0	0	119	357	595	1,071
	c. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses														
	a. Depreciation (C)	3.8582%	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)	0.000497	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	\$152	\$455	\$759	1,366
	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	\$152	\$455	\$759	1,366
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	N/A
11	Demand Jurisdictional Factor - Production (Base)		0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	
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	141	423	705	1,269
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$141	\$423	\$705	\$1,269

Notes:

- (A) N/A
- (B) Line 6 x 7.52% x 1/12. Based on ROE of 9.85%, weighted cost of equity component of capital structure of 4.34% 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 2021 Effective Tax Rate on original cost.
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42-8E
Page 4 of 9

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. ___ (GPD-3)
Page 12 of 18

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-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	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	0
	c. Retirements		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
2	Plant-in-Service/Depreciation Base	\$0	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	0
4	CWIP - Non-Interest Bearing	0	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	\$0
6	Average Net Investment		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	Return on Average Net Investment (B)														
	a. Debt Component														
	b. Equity Component Grossed Up For Taxes														
	c. Other														
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	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	N/A
11	Demand Jurisdictional Factor - Production (Intermediate)		0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	
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 7.52% x 1/12. Based on ROE of 9.85%, weighted cost of equity component of capital structure of 4.34% 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 2021 Effective Tax Rate on original cost.
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42-8E
Page 5 of 9

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. __ (GPD-3)
Page 13 of 18

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-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	End of Period Total
1	Working Capital Dr (Cr)														
	a. 0154401 Ammonia Inventory	\$2,286,125	\$2,289,545	\$2,461,640	\$2,526,032	\$2,622,687	\$2,899,988	\$3,049,960	\$2,641,642	\$2,641,642	\$2,641,642	\$2,641,642	\$2,641,642	\$2,641,642	\$2,641,642
	b. 0154200 Limestone Inventory	\$1,562,225	1,476,629	1,499,262	1,666,254	1,541,367	1,684,136	1,724,226	1,598,646	1,598,646	1,598,646	1,598,646	1,598,646	1,598,646	1,598,646
2	Total Working Capital	\$3,848,350	\$3,766,174	\$3,960,902	\$4,192,286	\$4,164,054	\$4,584,124	\$4,774,186	\$4,240,288	\$4,240,288	\$4,240,288	\$4,240,288	\$4,240,288	\$4,240,288	4,240,288
3	Average Net Investment		3,807,262	3,863,538	4,076,594	4,178,170	4,374,089	4,679,155	4,507,237	4,240,288	4,240,288	4,240,288	4,240,288	4,240,288	
4	Return on Average Net Working Capital Balance (A)														
	a. Debt Component		1.62%												
	b. Equity Component Grossed Up For Taxes		5.90%												
5	Total Return Component (B)		23,867	24,219	25,555	26,192	27,420	29,332	28,254	26,581	26,581	26,581	26,581	26,581	317,744
6	Expense Dr (Cr)														
	a. 0502030 Ammonia Expense		71,809	193,334	76,587	219,063	265,077	250,091	370,700	385,800	371,300	351,900	182,600	225,900	2,964,161
	b. 0502040 Limestone Expense		181,456	391,300	166,777	464,301	499,365	505,486	178,735	152,362	153,751	103,021	355,804	249,312	3,401,670
	c. 0502050 Dibasic Acid Expense		0	0	0	0	0	0	0	0	0	0	0	0	
	d. 0502070 Gypsum Disposal/Sale		(38,579)	(124,024)	(349,725)	0	(474,235)	(693,001)	(154,160)	(137,329)	(143,091)	(97,405)	(339,427)	(237,836)	(2,788,812)
	e. 0502040 Hydrated Lime Expense		107,038	238,071	85,890	239,505	224,965	239,635	338,700	352,500	339,200	321,600	167,100	206,500	2,860,704
	f. 0502300 Caustic Expense		0	82,008	81,862	0	82,153	82,153	81,862	0	81,862	0	0	0	491,899
7	Net Expense (C)		321,724	780,688	61,390	922,869	597,326	384,364	815,837	753,333	803,022	679,116	366,077	443,876	6,929,623
8	Total System Recoverable Expenses (Lines 5 + 7)		\$345,591	\$804,908	\$86,945	\$949,060	\$624,746	\$413,697	\$844,091	\$779,914	\$829,603	\$705,697	\$392,658	\$470,457	7,247,367
	a. Recoverable Costs Allocated to Energy		345,591	804,908	86,945	949,060	624,746	413,697	844,091	779,914	829,603	705,697	392,658	470,457	7,247,367
	b. Recoverable Costs Allocated to Demand		0	0	0	0	0	0	0	0	0	0	0	0	
9	Energy Jurisdictional Factor		0.92760	0.94600	0.94580	0.93710	0.88620	0.85240	0.90023	0.90279	0.90883	0.88886	0.94919	0.92876	
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)		320,570	761,443	82,233	889,365	553,650	352,635	759,874	704,099	753,969	627,264	372,708	436,940	6,614,748
12	Retail Demand-Related Recoverable Costs (E)		0	0	0	0	0	0	0	0	0	0	0	0	
13	Total Jurisdictional Recoverable Costs (Lines 11 + 12)		\$ 320,570	\$ 761,443	\$ 82,233	\$ 889,365	\$ 553,650	\$ 352,635	\$ 759,874	\$ 704,099	\$ 753,969	\$ 627,264	\$ 372,708	\$ 436,940	\$ 6,614,748

Notes:

- (A) Line 3 x 7.52% x 1/12. Based on ROE of 9.85%, weighted cost of equity component of capital structure of 4.34% 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 2022 - December 2022

Form 42 8E
Page 6 of 9

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. __ (GPD-3)
Page 14 of 18

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

Line	Description	Beginning of Period Amount	Actual Jan-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	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	0
	c. Retirements		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
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	2,612,979
3	Less: Accumulated Depreciation	(102,323)	(113,147)	(123,971)	(134,795)	(145,619)	(156,443)	(167,267)	(178,091)	(188,915)	(199,739)	(210,563)	(221,387)	(232,211)	
4	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Net Investment (Lines 2 + 3 + 4)	\$2,510,656	\$2,499,832	\$2,489,008	\$2,478,184	\$2,467,360	\$2,456,536	\$2,445,712	\$2,434,888	\$2,424,064	\$2,413,240	\$2,402,416	\$2,391,592	\$2,380,768	
6	Average Net Investment		\$2,505,244	\$2,494,420	\$2,483,596	\$2,472,772	\$2,461,948	\$2,451,124	\$2,440,300	\$2,429,476	\$2,418,652	\$2,407,828	\$2,397,004	\$2,386,180	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.62%	3,390	3,376	3,361	3,346	3,332	3,317	3,302	3,288	3,273	3,259	3,244	3,229	39,717
	b. Equity Component Grossed Up For Taxes	5.90%	12,314	12,261	12,208	12,155	12,101	12,048	11,995	11,942	11,889	11,835	11,782	11,729	144,259
	c. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses														
	a. Depreciation (C)	4.9707%	10,824	10,824	10,824	10,824	10,824	10,824	10,824	10,824	10,824	10,824	10,824	10,824	129,888
	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)	0.000497	108	108	108	108	108	108	108	108	108	108	108	108	1,296
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		\$26,636	\$26,569	\$26,501	\$26,433	\$26,365	\$26,297	\$26,229	\$26,162	\$26,094	\$26,026	\$25,958	\$25,890	315,160
	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		\$26,636	\$26,569	\$26,501	\$26,433	\$26,365	\$26,297	\$26,229	\$26,162	\$26,094	\$26,026	\$25,958	\$25,890	315,160
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)		0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	
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)		\$24,736	\$24,673	\$24,610	\$24,547	\$24,484	\$24,421	\$24,358	\$24,295	\$24,232	\$24,169	\$24,106	\$24,043	292,674
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$24,736	\$24,673	\$24,610	\$24,547	\$24,484	\$24,421	\$24,358	\$24,295	\$24,232	\$24,169	\$24,106	\$24,043	\$292,674

Notes:

- (A) N/A
- (B) Line 6 x 7.52% x 1/12. Based on ROE of 9.85%, weighted cost of equity component of capital structure of 4.34% 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 2021 Effective Tax Rate on original cost.
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42 8E
Page 7 of 9

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. ___ (GPD-3)
Page 15 of 18

Return on Capital Investments, Depreciation and Taxes
For Project: NPDES - Intermediate (Project 16)
(in Dollars)

Line	Description	Beginning of Period Amount	Actual Jan-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	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	0
	c. Retirements		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
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	(3,000,702)	(3,035,369)	(3,070,036)	(3,104,703)	(3,139,370)	(3,174,037)	(3,208,704)	(3,243,371)	(3,278,038)	(3,312,705)	(3,347,372)	(3,382,039)	(3,416,706)	
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)	\$9,841,168	\$9,806,501	\$9,771,834	\$9,737,167	\$9,702,500	\$9,667,833	\$9,633,166	\$9,598,499	\$9,563,832	\$9,529,165	\$9,494,498	\$9,459,831	\$9,425,164	
6	Average Net Investment		\$9,823,835	\$9,789,168	\$9,754,501	\$9,719,834	\$9,685,167	\$9,650,500	\$9,615,833	\$9,581,166	\$9,546,499	\$9,511,832	\$9,477,165	\$9,442,498	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.62%	13,295	13,248	13,201	13,154	13,107	13,060	13,013	12,966	12,919	12,872	12,825	12,778	156,438
	b. Equity Component Grossed Up For Taxes	5.90%	48,288	48,118	47,947	47,777	47,606	47,436	47,266	47,095	46,925	46,754	46,584	46,414	568,210
	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)	0.007490	8,015	8,015	8,015	8,015	8,015	8,015	8,015	8,015	8,015	8,015	8,015	8,015	96,180
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		\$104,265	\$104,048	\$103,830	\$103,613	\$103,395	\$103,178	\$102,961	\$102,743	\$102,526	\$102,308	\$102,091	\$101,874	1,236,832
	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		\$104,265	\$104,048	\$103,830	\$103,613	\$103,395	\$103,178	\$102,961	\$102,743	\$102,526	\$102,308	\$102,091	\$101,874	1,236,832
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)		0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	0.88321	
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)		92,088	91,896	91,704	91,512	91,319	91,128	90,936	90,743	90,552	90,359	90,168	89,976	1,092,380
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$92,088	\$91,896	\$91,704	\$91,512	\$91,319	\$91,128	\$90,936	\$90,743	\$90,552	\$90,359	\$90,168	\$89,976	\$1,092,380

Notes:

- (A) N/A
- (B) Line 6 x 7.52% x 1/12. Based on ROE of 9.85%, weighted cost of equity component of capital structure of 4.34% 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 2021 Effective Tax Rate on original cost.
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42 8E
Page 8 of 9

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. ___ (GPD-3)
Page 16 of 18

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-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	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	0
	c. Retirements		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
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	3,690,187
3	Less: Accumulated Depreciation	(503,933)	(519,219)	(534,505)	(549,791)	(565,077)	(580,363)	(595,649)	(610,935)	(626,221)	(641,507)	(656,793)	(672,079)	(687,365)	
4	CWIP - Non-Interest Bearing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Net Investment (Lines 2 + 3 + 4)	\$3,186,254	\$3,170,968	\$3,155,682	\$3,140,396	\$3,125,110	\$3,109,824	\$3,094,538	\$3,079,252	\$3,063,966	\$3,048,680	\$3,033,394	\$3,018,108	\$3,002,822	
6	Average Net Investment		\$3,178,611	\$3,163,325	\$3,148,039	\$3,132,753	\$3,117,467	\$3,102,181	\$3,086,895	\$3,071,609	\$3,056,323	\$3,041,037	\$3,025,751	\$3,010,465	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.62%	4,302	4,281	4,260	4,240	4,219	4,198	4,177	4,157	4,136	4,115	4,095	4,074	50,254
	b. Equity Component Grossed Up For Taxes	5.90%	15,624	15,549	15,474	15,399	15,324	15,248	15,173	15,098	15,023	14,948	14,873	14,798	182,531
	c. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses														
	a. Depreciation (C)	4.9707%	15,286	15,286	15,286	15,286	15,286	15,286	15,286	15,286	15,286	15,286	15,286	15,286	183,432
	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)	0.000497	153	153	153	153	153	153	153	153	153	153	153	153	1,836
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		\$35,365	\$35,269	\$35,173	\$35,078	\$34,982	\$34,885	\$34,789	\$34,694	\$34,598	\$34,502	\$34,407	\$34,311	418,053
	a. Recoverable Costs Allocated to Energy		35,365	35,269	35,173	35,078	34,982	34,885	34,789	34,694	34,598	34,502	34,407	34,311	418,053
	b. Recoverable Costs Allocated to Demand		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0
10	Energy Jurisdictional Factor		0.92760	0.94600	0.94580	0.93710	0.88620	0.85240	0.90023	0.90279	0.90883	0.88886	0.94919	0.92876	
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)		\$32,805	\$33,364	\$33,267	\$32,872	\$31,001	\$29,736	\$31,318	\$31,321	\$31,444	\$30,667	\$32,659	\$31,867	\$382,321
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)		\$32,805	\$33,364	\$33,267	\$32,872	\$31,001	\$29,736	\$31,318	\$31,321	\$31,444	\$30,667	\$32,659	\$31,867	\$382,321

Notes:

- (A) N/A
- (B) Line 6 x 7.52% x 1/12. Based on ROE of 9.85%, weighted cost of equity component of capital structure of 4.34% 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 2021 Effective Tax Rate on original cost.
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42 8E
Page 9 of 9

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. ___ (GPD-3)
Page 17 of 18

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-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Actual May-22	Actual Jun-22	Estimated Jul-22	Estimated Aug-22	Estimated Sep-22	Estimated Oct-22	Estimated Nov-22	Estimated Dec-22	End of Period Total
1	Investments														
	a. Expenditures/Additions		\$507	(\$507)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	b. Clearings to Plant		507	(507)	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	0
	d. Other (A)		0	0	0	0	0	0	0	0	0	0	0	0	0
2	Plant-in-Service/Depreciation Base	\$4,321,533	4,322,040	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	(66,960)	(84,861)	(102,764)	(120,665)	(138,566)	(156,467)	(174,368)	(192,269)	(210,170)	(228,071)	(245,972)	(263,873)	(281,774)	
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)	\$4,254,573	\$4,237,179	\$4,218,769	\$4,200,868	\$4,182,967	\$4,165,066	\$4,147,165	\$4,129,264	\$4,111,363	\$4,093,462	\$4,075,561	\$4,057,660	\$4,039,759	
6	Average Net Investment		\$4,245,876	\$4,227,974	\$4,209,818	\$4,191,917	\$4,174,016	\$4,156,115	\$4,138,214	\$4,120,313	\$4,102,412	\$4,084,511	\$4,066,610	\$4,048,709	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.62%	5,746	5,722	5,697	5,673	5,649	5,624	5,600	5,576	5,552	5,528	5,503	5,479	67,349
	b. Equity Component Grossed Up For Taxes	5.90%	20,870	20,782	20,693	20,605	20,517	20,429	20,341	20,253	20,165	20,077	19,989	19,901	244,622
	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	17,903	17,901	17,901	17,901	17,901	17,901	17,901	17,901	17,901	17,901	17,901	214,814
	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)	0.000497	(473)	179	179	179	179	179	179	179	179	179	179	179	1,496
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		\$44,044	\$44,586	\$44,470	\$44,358	\$44,246	\$44,133	\$44,021	\$43,909	\$43,797	\$43,685	\$43,572	\$43,460	528,281
	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		44,044	44,586	44,470	44,358	44,246	44,133	44,021	43,909	43,797	43,685	43,572	43,460	528,281
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)		0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	0.92865	
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)		40,901	41,405	41,297	41,193	41,089	40,984	40,880	40,776	40,672	40,568	40,463	40,359	490,587
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$40,901	\$41,405	\$41,297	\$41,193	\$41,089	\$40,984	\$40,880	\$40,776	\$40,672	\$40,568	\$40,463	\$40,359	\$490,587

Notes:

- (A) N/A
- (B) Line 6 x 7.52% x 1/12. Based on ROE of 9.85%, weighted cost of equity component of capital structure of 4.34% 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 2021 Effective Tax Rate on original cost. January includes a \$652 credit to reflect a 2021 adjustment based on the January 2021 Plant-In-Service.
- (E) Line 9a x Line 10
- (F) Line 9b x Line 11

DUKE ENERGY FLORIDA
Environmental Cost Recovery Clause
Calculation of Actual / Estimated Amount
January 2022 - December 2022

Form 42 9E

Docket No. 20220007-EI
Duke Energy Florida
Witness: G. P. Dean
Exh. No. ___ (GPD-3)
Page 18 of 18

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	\$ 7,191,027	44.08%	9.85%	4.34%	5.81%	0.4842%
2 Long Term Debt	6,202,596	38.02%	4.14%	1.57%	1.57%	0.1308%
3 Short Term Debt	173,823	1.07%	0.45%	0.00%	0.00%	0.0000%
4 Cust Dep Active	166,911	1.02%	2.47%	0.03%	0.03%	0.0025%
5 Cust Dep Inactive	1,519	0.01%			0.00%	0.0000%
6 Invest Tax Cr	200,576	1.23%	7.21%	0.09%	0.11%	0.0092%
7 Deferred Inc Tax	2,376,787	14.57%			0.00%	0.0000%
8 Total	\$ 16,313,240	100.00%		6.03%	7.52%	0.6267%

	ITC split between Debt and Equity**:	Ratio	Cost Rate	Ratio	Ratio	Deferred Inc Tax	Weighted ITC	After Gross-up
9 Common Equity	7,191,027	54%	9.85%	5.29%	73.4%	0.09%	0.066%	0.088%
10 Preferred Equity	-	0%				0.09%	0.000%	0.000%
11 Long Term Debt	6,202,596	46%	4.14%	1.92%	26.6%	0.09%	0.024%	0.024%
12	13,393,624	100%		7.21%			0.090%	0.112%

Breakdown of Revenue Requirement Rate of Return between Debt and Equity:

13	Total Equity Component (Lines 1 and 9)	5.898%
14	Total Debt Component (Lines 2, 3, 4, and 11)	1.624%
15	Total Revenue Requirement Rate of Return	7.522%

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
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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF
REGINALD ANDERSON

ON BEHALF OF
DUKE ENERGY FLORIDA, LLC
DOCKET NO. 20220007-EI

July 29, 2022

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. Have you previously filed testimony before this Commission in Docket No.
20220007-EI?**

A. Yes, I provided direct testimony on April 1, 2022.

**Q. Has your job description, education, background, and professional
experience changed since that time?**

A. No.

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to explain material variances between 2022
3 actual/estimated cost projections and original 2022 cost projections for
4 environmental compliance costs associated with FPSC-approved environmental
5 programs under my responsibility. These programs include the CAIR/CAMR
6 Crystal River (“CR”) Program (Project 7.4), and Mercury & Air Toxics Standards
7 (MATS) – Crystal River 1&2 Program (Project 17.2).

8

9 **Q. Please explain the variance between actual/estimated O&M expenditures**
10 **and the original projections for O&M expenditures for the CAIR/CAMR**
11 **CR-Energy (Reagents) Program (Project 7.4) for the period January 2022**
12 **through December 2022?**

13 A. O&M expenditures for the CAIR/CAMR CR-Energy (Reagents) Program are
14 forecasted to be \$630,601, or 8% lower than originally forecasted.

15 This variance is attributable to a forecasted \$901k decrease in Ammonia expense,
16 a \$2.52M decrease in Limestone expense, a \$38k decrease in Dibasic Acid
17 expense, and a \$671k decrease in Hydrated Lime expense. These were partially
18 offset by a \$3M decrease in the projected credit for Gypsum Sales and a \$492k
19 increase in Caustic expense.

20

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

22 A. Yes.

23

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

ERIC SZKOLNYJ

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20220007-EI

July 29, 2022

1 **Q. Please state your name and business address.**

2 A. My name is Eric Szkolnyj. My business address is 526 South Church Street, Charlotte, NC
3 28202.

4
5 **Q. By whom are you employed?**

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

9
10 **Q. Have you previously filed testimony before this Commission in Docket No. 20220007-
11 EI?**

12 A. Yes, I provided direct testimony on April 1, 2022.

13
14 **Q. Has your job description, education, background, and professional experience changed
15 since that time?**

16 A. No.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain material variances between 2022 actual/estimated cost projections and original 2022 cost projections for environmental compliance costs associated with DEF’s Coal Combustion Residual (“CCR”) Rule compliance project.

Q. Please explain the O&M variance between actual/estimated project expenditures and original projections for CCR (Project 18) O&M for the period January 2022 through December 2022.

A. O&M expenditures for CCR are expected to be \$60,340, or 18% higher than projected. This is primarily due to two additional rounds of groundwater samples being collected than originally forecasted, and landfill permit fees.

Q. Does this conclude your testimony?

A. Yes.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

KIM SPENCE McDANIEL

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20220007-EI

July 29, 2022

1 **Q. Please state your name and business address.**

2 A. My name is Kim S. McDaniel. My business address is 299 First Avenue North,
3 St. Petersburg, FL 33701.

4

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

6 A. I am employed by Duke Energy Florida, LLC (“DEF” or the “Company”) as
7 Manager of Environmental Services.

8

9 **Q. Have you previously filed testimony before this Commission in Docket No.**
10 **20220007-EI?**

11 A. Yes, I provided direct testimony on April 1, 2022.

12

13 **Q. Has your job description, education, background and professional**
14 **experience changed since that time?**

15 A. No.

16

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to explain material variances between 2022
3 actual/estimated cost projections and original 2022 cost projections for
4 environmental compliance costs associated with FPSC-approved programs under
5 my responsibility. These programs include the Substation Environmental
6 Investigation, Remediation and Pollution Prevention Program (Project 1 & 1a),
7 Distribution System Environmental Investigation, Remediation and Pollution
8 Prevention Program (Project 2), Pipeline Integrity Management (PIM) (Project
9 3), Above Ground Secondary Containment (Project 4), Phase II Cooling Water
10 Intake – 316(b) (Project 6), CAIR/CAMR - Peaking (Project 7.2), Best Available
11 Retrofit Technology (BART) (Project 7.5), Arsenic Groundwater Standard
12 (Project 8), Sea Turtle Coastal Street Lighting Program (Project 9), Underground
13 Storage Tanks (Project 10), Modular Cooling Towers (Project 11), Thermal
14 Discharge Permanent Cooling Tower (Project 11.1), Greenhouse Gas Inventory
15 and Reporting (Project 12), Mercury Total Daily Maximum Loads Monitoring
16 (Project 13), Hazardous Air Pollutants Information Collection Request (ICR)
17 Program (Project 14), Effluent Limitation Guidelines Program (Project 15.1),
18 National Pollutant Discharge Elimination System (NPDES) (Project 16), and
19 Mercury and Air Toxics Standards (MATS) – Crystal River (CR) 4&5 (Project
20 17), for the period January 2022 through December 2022.

21

22 **Q. Please explain the variance between actual/estimated O&M project**
23 **expenditures and original projections for Phase II Cooling Water Intake**

1 **316(b) (Projects 6 & 6a) for the period January 2022 through December**
2 **2022.**

3 A. O&M expenditures for Phase II Cooling Water Intake 316(b) are expected to be
4 \$93,941 (34%) lower than originally forecasted.

5 Project 6, 316(b) – Base, is forecasted to be \$124k higher than forecasted. This
6 variance is due to the fact that O&M expenditures for the Crystal River 316(b)
7 compliant screens were not included in previous projections. These O&M
8 expenditures are required for the periodic removal and cleaning of the screens to
9 ensure they continue functioning properly as designed.

10 Project 6a, 316(b) – Intermediate, is forecasted to be \$218k, or 84% lower than
11 originally forecasted. This variance is primarily due to the continued delay in
12 permit issuance from the Florida Department of Environmental Protection
13 (“FDEP”). While it is unclear when the FDEP will issue the National Pollutant
14 Discharge Elimination System (“NPDES”) permit renewal, permit issuance could
15 occur during the fourth quarter of 2022, in which case DEF currently proposes to
16 initiate development of a study plan to verify that impingement meets the
17 mortality standard in the 316(b) rule with a 24-month field monitoring effort to
18 begin during 2023 after FDEP approval of the study plan.

19
20 **Q. Please explain the variance between actual/estimated Capital project**
21 **expenditures and original projections for Phase II Cooling Water Intake**
22 **316(b) – Base (Project 6) for the period January 2022 through December**
23 **2022.**

1 A. Capital expenditures for Phase II Cooling Water Intake 316(b) Base are expected
2 to be \$425,824. This updated forecast is due to expenses associated with
3 constructing a steel structure to properly hold and store the newly installed 316(b)
4 compliant screens during cleaning. Unlike prior screens, the materials from which
5 these screens are constructed require construction of a steel structure to hold the
6 screens in the upright position to prevent damage to the screens during cleaning.

7
8 **Q. Please explain the variance between actual/estimated Capital project**
9 **expenditures and original projections for Phase II Cooling Water Intake**
10 **316(b) – Base, (Project 6.1) for the period January 2022 through December**
11 **2022.**

12 A. Capital expenditures for Phase II Cooling Water Intake 316(b) Base – Bartow, are
13 expected to be \$920,901 or 86% lower than originally forecasted. This variance
14 is primarily due to the continued delay in permit issuance from the FDEP. While
15 it is unclear when the FDEP will issue the NPDES permit renewal, permit
16 issuance could occur during the fourth quarter of 2022 in which case replacement
17 of travelling screens could commence by the end of 2022.

18
19 **Q. Please explain the variance between actual/estimated O&M project**
20 **expenditures and original projections for National Emission Standards for**
21 **Hazardous Air Pollutants (“NESHAP”) - Base (Project 7.6) for the period**
22 **January 2022 through December 2022.**

23 A. O&M expenditures for NESHAP are expected to be \$170,448. This project was
24 not originally forecasted for 2022.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

Q. Please provide an update on National Emission Standards for Hazardous Air Pollutants (“NESHAP”) project (Project 7.6).

As referenced in the April 1, 2022 testimony of Kim McDaniel, Docket No. 20220007-EI, DEF’s Bartow Combined Cycle, Hines Energy Complex, and Citrus Combined Cycle, units are subject to NESHAP for stationary combustion turbines (“CTs”) that are located at major sources of hazardous air pollutants (“HAPs”).

Bartow Combined Cycle Station (“BCC”) and Hines Energy Complex (“HEC”)

As previously stated in Ms. McDaniel’s April 1, 2022 testimony, applications requesting reclassification of HEC and BCC as an Area Source were sent to FDEP for review on March 15, 2022 and March 23, 2022, respectively. Title V permit revisions reclassifying HEC and BCC as Area Sources were issued May 4th and June 8th respectively. HEC and BCC are no longer subject to NESHAPS for stationary combustion turbines (“CTs”) subpart YYYY.

Citrus Combined Cycle Station (“CCC”)

During the week of May 16th, engineering testing was initiated at the CCC units to collect data that is supporting the development of an Alternate Monitoring Plan (AMP) that identifies the operating limitation(s) that will be used to ensure continuous compliance with the formaldehyde emissions limitation. DEF will also be exploring, through emissions testing of the Crystal River North coal units, the potential for reclassifying the Citrus Combined Cycle/Crystal River Site as an Area Source. Since the Crystal River North coal units and the Citrus Combined

1 Cycle units are contiguous and therefore share a Title V permit, emissions from
2 both sites factor into the Area Source determination. Should DEF be successful
3 in reclassifying the Citrus Combined Cycle/Crystal River site as an Area Source,
4 the site will no longer be subject to the NESHAP for stationary CTs, subpart
5 YYYYY, and the AMP will not be necessary. DEF will provide the Commission
6 an update on the status of the NESHAP strategy in the next available ECRC filing.
7

8 **Q. Please explain the variance between actual/estimated O&M project**
9 **expenditures and original projections for Arsenic Groundwater Standard -**
10 **Base (Project 8) for the period January 2022 through December 2022.**

11 A. O&M expenditures for Arsenic Groundwater Standard - Base are expected to be
12 \$27,031 or 36% lower than forecasted, due to the timing of the final site
13 rehabilitation report moving to 2023. The FDEP is requiring additional
14 groundwater monitoring and assessment before a final site rehabilitation report
15 and a No Further Action (“NFA”) request can be developed and submitted. This
16 will now occur in 2023.
17

18 **Q. Please explain the variance between actual/estimated O&M project**
19 **expenditures and original projections for National Pollutant Discharge**
20 **Elimination System (“NPDES”) (Project 16) for the period January 2022**
21 **through December 2022.**

22 A. O&M expenditures for NPDES are expected to be \$6,207 (20%) higher than
23 forecasted. This is primarily due to two supply chain related price increases from
24 contract laboratories that occurred in January and in June 2022.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

Q. Please explain the variance between actual/estimated O&M project expenditures and original projections for Mercury & Air Toxic Standards (“MATS”) CR4 & CR5 - Energy (Project 17) for the period January 2022 through December 2022.

A. O&M expenditures for NPDES are expected to be \$24,641 (13%) higher than forecasted. The original budget was for one unit only, however, Crystal River performed outages on both units, allowing for MATS testing to be completed on both units during the first half of this year.

Q. Please provide an update of 316(b) regulations.

A. The 316(b) rule became effective October 15, 2014, to minimize impingement and entrainment of fish and aquatic life drawn into cooling systems at power plants and factories. There are seven pre-approved impingement options. Entrainment compliance is site-specific (mesh screen or closed-cycle cooling). Legal challenges to the 316(b) rule have so far been unsuccessful. The U.S. Court of Appeals for the Second Circuit issued an opinion on the consolidated challenges to the 316(b) Rule for Existing Facilities. The court upheld the Rule, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service biological opinions, and the incidental take statement, concluding that each action was based on reasonable interpretations of the applicable statutes and sufficiently supported by the adequate record. The court also found the Environmental Protection Agency (“EPA”) complied with applicable procedures, including by giving adequate notice of the final rule’s provisions to the public.

1 The regulation primarily applies to facilities that commenced construction on or
2 before January 17, 2002, and to new units at existing facilities that are built to
3 increase the generating capacity of the facility. All facilities that withdraw greater
4 than 2 million gallons per day from waters of the U.S. and where twenty-five
5 percent (25%) of the withdrawn water is used for cooling purposes are subject to
6 the regulation.

7 Per the final rule, required 316(b) studies and information submittals will be tied
8 to NPDES permit renewals. For permits that expire within 45 months of the
9 effective date of the final rule, certain information must be submitted with the
10 renewal application. Other information, including field study results, are required
11 to be submitted pursuant to a schedule included in the re-issued NPDES permit.

12 Both the Anclote and Bartow stations are within this schedule and the NPDES
13 permit renewal applications, including the studies and information required under
14 40 CFR 122.21(r)(2-13) as required by the 316(b) rule of the Clean Water Act,
15 were submitted to FDEP for Anclote and Bartow in July and August 2020
16 respectively. A 316(b) Compliance Plan for Crystal River Units 4&5 utilizing the
17 cooling water blowdown from the Citrus Combined Cycle Station as the source
18 of make-up water for Crystal River Units 4&5 is being implemented as part of the
19 current permit renewal for those units.

20 For NPDES permits that expire more than 45 months from the effective date of
21 the rule, all information, including study results, is required to be submitted as
22 part of the renewal application.

23 The Bartow Station will require modifications to comply with the 316(b) Rule.
24 DEF is proposing that the Anclote station can meet 316(b) requirements with

1 existing infrastructure, but additional studies to demonstrate compliance will
2 likely be required by the permit. DEF has been conducting 316(b) studies at the
3 Anclote and Bartow stations, and study results along with proposed compliance
4 strategies were filed with the FDEP in July and August 2020, respectively as part
5 of the NPDES renewal process. Proposed compliance strategies for both are being
6 evaluated by FDEP as part of the NPDES permit renewal.

7 The full extent of compliance activities and associated expenditures cannot be
8 determined until review of the proposed options by FDEP has been completed and
9 the NPDES permit renewal issued with new compliance requirements and
10 schedules. While unlikely, it is possible preliminary studies could begin as early
11 as the fourth quarter of 2022 if the final NPDES renewal is issued by FDEP by
12 early fourth quarter of this year. Due to the complexity of the 316(b) studies and
13 proposals under review by the agency, it is difficult to assess the timing or the
14 outcome of the final NPDES permit renewal. DEF will provide the Commission
15 an update on the status of the 316(b) Rule compliance strategies for the Anclote
16 and Bartow stations in the next available ECRC filing following issuance of the
17 NPDES permit renewal.

18
19 **Q. Please provide an update on the Waters of the United States (“WOTUS”)**
20 **Rule.**

21 A. On June 29, 2015 the EPA and the Army Corps of Engineers (“Corps”) published
22 the final Clean Water Rule that significantly expanded the definition of the Waters
23 of the United States (“WOTUS”). On October 9, 2015 the U.S. Court of Appeals
24 for the Sixth Circuit granted a nationwide stay of the rule effective through the

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

19 On January 31, 2018, the EPA and Corps announced a final rule adding
20 an applicability date to the 2015 rule defining “waters of the United States,”
21 thereby deferring implementation of the 2015 WOTUS Rule until early 2020.
22 This rule has no immediate impact to Duke Energy, and the agencies will
23 continue to apply the pre-existing WOTUS definition in place prior to the 2015
24 rule until 2020.

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

11 On January 20, 2021, through Executive Order 13990, the Biden Administration
12 directed the EPA and the Corps to review the NWPR Rule. The US District
13 Court for the District of Arizona vacated and remanded the NWPR Rule on
14 August 30, 2021, which vacated and remanded the rule nationwide. The EPA
15 and Corps announced on September 3, 2021 that efforts to implement the
16 NWPR Rule had ceased and on December 7, 2021, the EPA published a
17 proposed rule to officially repeal the NWPR Rule and replace it with the 1986
18 WOTUS rule. The public comment period for this proposed rule closed on
19 February 7, 2022. The EPA currently plans to publish a final rule in August
20 2022.

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

23

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

1 A. Yes.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16