



Stephanie A. Cuello
SENIOR COUNSEL

August 25, 2023

VIA ELECTRONIC FILING

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

Environmental Cost Recovery Clause; Docket No. 20230007-EI

Dear Mr. Teitzman:

On behalf of Duke Energy Florida, LLC, please find enclosed for electronic filing in the above-referenced Docket:

- DEF's Petition for Approval of Environmental Cost Recovery True-Up and 2024 Environmental Cost Recovery Clause Factors;
- Direct Testimony of Gary P. Dean and Exhibit No. ___ (GPD-3);
- Direct Testimony of Patricia Q. West;
- Direct Testimony of Eric Szkolnyj; and
- Direct Testimony of Reginald Anderson.

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

BEFORE THE PUBLIC SERVICE COMMISSION

In re: Environmental Cost Recovery Clause

Docket No. 20230007-EI

Dated: August 25, 2023

**DUKE ENERGY FLORIDA, LLC'S PETITION FOR APPROVAL
OF ENVIRONMENTAL COST RECOVERY TRUE-UP AND 2024
ENVIRONMENTAL COST RECOVERY CLAUSE FACTORS**

Duke Energy Florida, LLC (“DEF” or the “Company”), hereby petitions for approval of its environmental cost recovery true-up, proposed Environmental Cost Recovery Clause (“ECRC”) factors for the period January 2024 to December 2024. In support of this Petition, the Company states:

1. The total true-up applicable for this period is an under-recovery of \$2,781,842. This consists of the final true-up over-recovery of \$309,443 for the period from January 2022 through December 2022 and an estimated true-up under-recovery of \$3,091,285 for the current period of January 2023 through December 2023. Documentation supporting the total true-up over-recovery is provided in the testimony of Gary P. Dean and Exhibit No. __ (GPD-2) submitted on July 28, 2023, and Mr. Dean’s testimony and Exhibit No. __ (GPD-3) submitted contemporaneously with this Petition. Additional cost information for specific ECRC programs for the period January 2023 through December 2023 are presented in the July 28, 2023, pre-filed testimonies of Reginald Anderson, Eric Szkolnyj, and Patricia West.

2. As explained in Mr. Dean’s testimony submitted with this Petition and shown on Form 42-1P Line 4 of Mr. Dean’s Exhibit No. __ (GPD-3), the total projected jurisdictional capital and O&M costs, including the total true-up under-recovery of \$2,781,842, for the period January

2024 through December 2024 are \$17,567,489. Projected costs for specific ECRC programs for the period January 2024 through December 2024 are presented in the pre-filed testimonies of Mr. Anderson, Mr. Dean, Mr. Szkolnyj, and Ms. West, submitted with this Petition.

3. Ms. West will provide an update on the Reclaimed Water Interconnection and Lead and Copper Rule, which was addressed in the Petition filed June 30, 2023 in this Docket.

4. DEF's proposed ECRC factors for the period January 2024 to December 2024, which are designed to recover the 2022 final true-up, 2023 actual/estimated true-up, and projected 2024 costs, and proposed cost allocations for the Reclaimed Water Interconnection and Lead and Copper Rule are presented for the Commission's review and approval in Mr. Dean's testimony and supporting exhibits submitted with this Petition.

5. The environmental cost recovery true-up and proposed ECRC factors presented in Mr. Dean's testimony and exhibits are consistent with the provisions of Section 366.8255, Florida Statutes, and with prior rulings by the Commission.

WHEREFORE, DEF respectfully requests that the Commission approve the Company's environmental cost recovery true-up, proposed ECRC factors for the period January 2024 through December 2024, proposed cost allocations for the Reclaimed Water Interconnection and Lead and Copper Rule, as set forth in the testimony and supporting exhibits of Mr. Dean filed

contemporaneously with this Petition and the new Reclaimed Water Interconnection and Lead and Copper Rule for ECRC Recovery.

RESPECTFULLY SUBMITTED this 25th day of August, 2023.

/s/ Stephanie A. Cuello

DIANNE 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
106 East College Avenue, Suite 800
Tallahassee, Florida 32301
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

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 25th day of August, 2023.

/s/ Stephanie A. Cuello
Attorney

<p>Adria Harper / Jacob Imig 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</p> <p>J. Wahlen / M. Means / V. Ponder Ausley McMullen P.O. Box 391 Tallahassee, FL 32302 jwahlen@ausley.com mmeans@ausley.com vponder@ausley.com</p> <p>Jon C. Moyle, Jr. Moyle Law Firm, P.A. 118 North Gadsden Street Tallahassee, FL 32301 jmoyle@moylelaw.com mqualls@moylelaw.com</p> <p>Maria Jose Moncada / Joel Baker 700 Universe Boulevard Juno Beach, FL 33408-0420 maria.moncada@fpl.com joel.baker@fpl.com</p> <p>James W. Brew / Laura Wynn Baker Stone Mattheis Xenopoulos & Brew, P.C. 1025 Thomas Jefferson Street, NW Eighth Floor, West Tower Washington, DC 20007 jbrew@smxblaw.com lwb@smxblaw.com</p>	<p>M. Wessling/ P. Christensen / C. Rehwinkel Office of Public Counsel 111 West Madison Street, Room 812 Tallahassee, FL 32399-1400 wessling.mary@leg.state.fl.us christensen.patty@leg.state.fl.us rehwinkel.charles@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>Kenneth Hoffman Florida Power & Light Company 134 W. Jefferson Street Tallahassee, FL 32301-1713 ken.hoffman@fpl.com</p> <p>Peter J. Mattheis / Michael K. Lavanga / Joseph R. Briscar Nucor c/o Stone Law Firm 1025 Thomas Jefferson Street, N.W. Eighth Floor, West Tower Washington, DC 20007 pjm@smxblaw.com mkl@smxblaw.com jrb@smxblaw.com</p>
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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

GARY P. DEAN

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20230007-EI

August 25, 2023

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. Have you previously filed testimony before this Commission in Docket No.**
6 **20230007-EI?**

7 A. Yes. I provided direct testimony on March 31, 2023, and July 28, 2023.

8

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

11 A. No.

12

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

14 A. The purpose of my testimony is to present, for Commission review and approval,
15 Duke Energy Florida, LLC's ("DEF" or "Company") calculation of revenue

1 requirements and Environmental Cost Recovery Clause (“ECRC”) factors for
2 customer billings for the period January 2024 through December 2024. My
3 testimony also addresses capital and O&M expenses for DEF’s environmental
4 compliance activities for the year 2024.

5
6 **Q. Have you prepared or caused to be prepared under your direction,
7 supervision, or control any exhibits in this proceeding?**

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

9 Exhibit No. __ (GPD-3), which consists of PSC Forms 42-1P through 42-8P
10 The individuals listed below are co-sponsors of Forms 42-5P pages 1-4 and 6-25
11 as indicated in their direct testimony. I am sponsoring Form 42-5P page 5.

- 12 • Mr. Anderson and Ms. West will co-sponsor Form 42-5P page 7.
- 13 • Mr. Anderson will co-sponsor Form 42-5P pages 20-22.
- 14 • Mr. Szkolnyj will co-sponsor Form 42-5P page 23.
- 15 • Ms. West will co-sponsor Forms 42-5P pages 1-4, 6, 8-19, and 24-25.

16
17 **Q. Please summarize your testimony.**

18 A. My testimony supports the approval of an average ECRC billing factor of 0.044
19 cents per kWh which includes projected jurisdictional capital and O&M revenue
20 requirements for the period January 2024 through December 2024 of
21 approximately \$14.8 million, and a net true-up under-recovery provision of
22 approximately \$2.8 million from prior periods. My testimony also supports that

1 projected environmental expenditures for 2024 are appropriate for recovery
2 through the ECRC.

3

4 **Q. What is the total recoverable revenue requirement for the period January
5 2024 through December 2024?**

6 A. The total recoverable revenue requirement including true-up amounts is
7 approximately \$17.6 million as shown on Form 42-1P line 4 of Exhibit No.
8 __ (GPD-3).

9

10 **Q. What is the total true-up to be applied for the period January 2024 through
11 December 2024?**

12 A. The total true-up applicable to this period is a net under-recovery of
13 approximately \$2.8 million. This amount consists of the final true-up over-
14 recovery of approximately \$309 thousand for the period January 2022 through
15 December 2022, and an estimated true-up under-recovery of approximately \$3.1
16 million for the current period of January 2023 through December 2023. The
17 detailed calculation supporting the 2023 estimated true-up was provided on Forms
18 42-1E through 42-9E of Exhibit No. __ (GPD-2) filed with the Commission on
19 July 28, 2023.

20

21 **Q. Are all the costs listed on Forms 42-1P through 42-7P attributable to
22 environmental compliance programs previously approved by the
23 Commission?**

1 A. Yes, with the exception of Projects 19 (Reclaimed Water Interconnection) and 20
2 (Lead and Copper Rule), which were submitted for approval on June 30, 2023 in
3 this Docket. All other costs listed on Forms 42-1P through 42-7P were previously
4 approved by the Commission and are listed below:

5
6 The Substation and Distribution System Programs (Project 1 & 2) were previously
7 approved in Order No. PSC-2002-1735-FOF-EI.

8
9 The Pipeline Integrity Management Program (Project 3) and the Above Ground
10 Tank Secondary Containment Program (Project 4) were previously approved in
11 Order No. PSC-2003-1348-FOF-EI.

12
13 The recovery of sulfur dioxide (SO₂) Emission Allowances (Project 5) was
14 previously approved in Order No. PSC-1995-0450-FOF-EI, however, the costs
15 were moved to the ECRC docket from the Fuel docket beginning January 1, 2004
16 at the request of Staff to be consistent with the other Florida investor owned
17 utilities.

18
19 CAIR was replaced by the Cross-State Air Pollution Rule on January 1, 2015.
20 Consistent with Order No. PSC-2011-0553-FOF-EI, DEF treated the costs
21 associated with unusable NO_x emission allowances as a regulatory asset and
22 amortized it over three (3) years, beginning January 1, 2015, until fully recovered
23 December 31, 2017, with a return on the unamortized investment.

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The Phase II Cooling Water Intake 316(b) Program (Project 6) was previously approved in Order No. PSC-2004-0990-PAA-EI, PSC-2018-0014-FOF-EI, and PSC-2020-0433-FOF-EI.

DEF’s Integrated Clean Air Compliance Plan (Project 7) was approved by the Commission as a prudent and reasonable means of complying with the Clean Air Interstate Rule and related regulatory requirements in Order No. PSC-2007-0922-FOF-EI. The NESHAP provision was approved in Order No. PSC-2022-0424-FOF-EI.

The Arsenic Groundwater Standard Program (Project 8), Sea Turtle Lighting Program (Project 9) and Underground Storage Tanks Program (Project 10) were previously approved in Order No. PSC-2005-1251-FOF-EI.

The Modular Cooling Tower Project (Project 11) was previously approved in Order No. PSC-2007-0722-FOF-EI.

The Crystal River Thermal Discharge Compliance Project (Project 11.1) and Greenhouse Gas Inventory and Reporting Project (Project 12) were previously approved in Order No. PSC-2008-0775-FOF-EI.

1 The Mercury Total Maximum Loads Monitoring Program (Project 13) was
2 previously approved in Order No. PSC-2009-0759-FOF-EI.

3

4 The Hazardous Air Pollutants (HAPs) ICR Program (Project 14) was previously
5 approved in Order No. PSC-2010-0099-PAA-EI.

6

7 The Effluent Limitations Guidelines ICR Program (Project 15) was previously
8 approved in Order No. PSC-2010-0683-PAA-EI.

9

10 The Effluent Limitations Guidelines Program (Project 15.1) was previously
11 approved in Order No. PSC-2013-0606-FOF-EI.

12

13 The National Pollutant Discharge Elimination System (NPDES) Program (Project
14 16) was previously approved in Order No. PSC-2011-0553-FOF-EI.

15

16 The Mercury & Air Toxic Standards (MATS) Program (Project 17) which
17 replaces Maximum Achievable Control Technology (MACT) was previously
18 approved in Order Nos. PSC-2011-0553-FOF-EI, PSC-2012-0432-PAA-EI and
19 PSC-2014-0173-PAA-EI.

20

21 The Coal Combustion Residual (CCR) Rule (Project 18) was previously approved
22 in Order No. PSC-2015-0536-FOF-EI, Order No. PSC-2018-0594-FOF-EI, and
23 Order No. PSC-2019-0500-FOF-EI.

1

2 **Q. How will Reclaimed Water Interconnection costs (Reclaimed Water**
3 **Interconnection (Project 19) be allocated to rate classes?**

4 A: DEF proposes that O&M costs associated with the Reclaimed Water
5 Interconnection be allocated to rate classes on an Energy basis, and Capital be
6 allocated to rate classes on a Demand basis.

7

8 **Q. How will Lead & Copper Rule (Lead & Copper Rule (Project 20) be allocated**
9 **to rate classes?**

10 A: DEF proposes that O&M and capital costs associated with the Lead and Copper
11 Rule be allocated to rate classes on a Demand basis.

12

13 **Q. Have you prepared schedules showing the calculation of the recoverable**
14 **O&M project costs for 2024?**

15 A. Yes. Form 42-2P of Exhibit No. ___ (GPD-3) summarizes recoverable
16 jurisdictional O&M cost estimates for these projects of approximately \$10.3
17 million.

18

19 **Q. Have you prepared schedules showing the calculation of the recoverable**
20 **capital project costs for 2024?**

21 A. Yes. Form 42-3P of Exhibit No. ___ (GPD-3) summarizes recoverable
22 jurisdictional capital cost estimates for these projects of approximately \$4.5
23 million. Form 42-4P pages 1 through 10 show detailed calculations of these costs.

1

2 **Q. Have you prepared schedules providing progress reports for all**
3 **environmental compliance projects?**

4 A. Yes. Form 42-5P pages 1 through 25 of Exhibit No. __ (GPD-3) provide a
5 description, progress summary and recoverable cost estimates for each project.

6

7 **Q. What are the total projected recoverable jurisdictional costs for**
8 **environmental compliance projects for the year 2024?**

9 A. The total jurisdictional capital and O&M costs to be recovered through the ECRC
10 are approximately \$14.8 million. The costs are calculated on Form 42-1P line 1c
11 of Exhibit No. __ (GPD-3).

12

13 **Q. Please describe how the proposed ECRC factors are developed.**

14 A. The ECRC factors are calculated on Forms 42-6P and 42-7P of Exhibit No. __ (GPD-
15 3). The demand component of class allocation factors is calculated by determining
16 the percentage each rate class contributes to monthly system peaks adjusted for
17 losses for each rate class which is obtained from DEF's load research study filed
18 with the Commission on April 28, 2023. The energy allocation factors are
19 calculated by determining the percentage each rate class contributes to total
20 kilowatt-hour sales adjusted for losses for each rate class. Form 42-7P presents the
21 calculation of the proposed ECRC billing factors by rate class.

22

23 **Q. What are DEF's proposed 2024 ECRC billing factors by the various rate**

1 **classes and delivery voltages?**

2 A. The calculation of DEF's proposed ECRC factors for 2024 customer billings is
3 shown on Form 42-7P in Exhibit No. __ (GPD-3) as follows:

4
5

RATE CLASS	ECRC FACTORS
Residential	0.046 cents/kWh
General Service Non-Demand @ Secondary Voltage @ Primary Voltage @ Transmission Voltage	0.044 cents/kWh 0.044 cents/kWh 0.043 cents/kWh
General Service 100% Load Factor	0.042 cents/kWh
General Service Demand @ Secondary Voltage @ Primary Voltage @ Transmission Voltage	0.043 cents/kWh 0.043 cents/kWh 0.042 cents/kWh
Curtable @ Secondary Voltage @ Primary Voltage @ Transmission Voltage	0.041 cents/kWh 0.041 cents/kWh 0.040 cents/kWh
Interruptible @ Secondary Voltage @ Primary Voltage @ Transmission Voltage	0.041 cents/kWh 0.041 cents/kWh 0.040 cents/kWh
Lighting	0.037 cents/kWh

24

1

2 **Q. When is DEF requesting that the proposed ECRC billing factors be**
3 **effective?**

4 A. DEF is requesting that its proposed ECRC billing factors be effective with the
5 first billing cycle of January 2024 and continue through the last billing cycle of
6 December 2024.

7

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

9 A. Yes.

Docket No. 20230007-EI

Duke Energy Florida, LLC

Witness: G. P. Dean

Exh. No. __ (GPD-3)

Page 1 of 42

**DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Commission Forms 42-1P Through 42-8P**

**January 2024 - December 2024
Calculation of Projected Period Amount**

Docket No. 20230007-EI

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Calculation of Projection Amount
January 2024 - December 2024

Form 42-1P

Docket No. 20230007-EI
Duke Energy Florida, LLC
Witness: G. P. Dean
Exh. No. __ (GPD-3)
Page 2 of 42

Line	Energy (\$)	Transmission Demand (\$)	Distribution Demand (\$)	Production Demand (\$)	Total (\$)
1 Total Jurisdictional Rev Req for the Projected Period					
a Projected O&M Activities (Form 42-2P, Lines 7 through 9)	\$9,673,754	\$0	\$0	\$629,825	\$10,303,579
b Projected Capital Projects (Form 42-3P, Lines 7 through 9)	1,060,418	0	0	3,421,649	4,482,068
c Total Jurisdictional Rev Req for the Projected Period (Lines 1a + 1b)	<u>10,734,172</u>	<u>0</u>	<u>0</u>	<u>4,051,474</u>	<u>14,785,647</u>
2 True-up for Estimated Over/(Under) Recovery for the Current Period January 2023 - December 2023 (Form 42-2E, Line 5 + 6 + 10)	(3,262,492)	0	0	171,207	(3,091,285)
3 Final True-up Over/(Under) for the Period January 2022 - December 2022 (Form 42-1A, Line 3)	<u>290,287</u>	<u>0</u>	<u>0</u>	<u>19,156</u>	<u>309,443</u>
4 Total Jurisdictional Amount to Be Recovered/(Refunded) in the Projection Period January 2024 - December 2024 (Line 1 - Line 2 - Line 3)	<u><u>\$13,706,378</u></u>	<u><u>\$0</u></u>	<u><u>\$0</u></u>	<u><u>\$3,861,111</u></u>	<u><u>\$17,567,489</u></u>

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Calculation of Projection Amount
January 2024 - December 2024

Form 42-2P

Docket No. 20230007-EI

Duke Energy Florida, LLC

Witness: G. P. Dean

Exh. No. ____ (GPD-3)

Page 3 of 42

O&M Activities
(in Dollars)

Line	Description	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	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/Anclocte 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	384	292	139	142	343	359	234	241	215	241	248	221	3,059
6	Phase II Cooling Water Intake 316(b) - Base	20,000	20,000	28,000	20,000	20,000	28,000	20,000	20,000	28,000	20,000	28,000	20,000	272,000
6a	Phase II Cooling Water Intake 316(b) - Intm	20,834	20,833	20,833	20,834	3,000	7,000	85,000	20,000	20,000	20,000	20,000	20,000	278,334
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	835,529	710,356	585,764	594,888	888,279	903,396	771,463	781,162	746,596	783,190	793,204	756,528	9,150,355
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	40,000	0	0	0	0	0	0	0	0	0	0	40,000
8	Arsenic Groundwater Standard - Base	2,492	2,492	7,492	2,492	2,492	2,492	2,492	2,492	2,492	2,492	2,492	7,492	39,904
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	0	12,125	0	0	0	0	23,925	0	0	36,050
17	Mercury & Air Toxic Standards (MATS) CR4 & CR5 - Energy	0	0	0	0	0	0	0	0	50,000	100,000	50,000	0	200,000
17.1	Mercury & Air Toxic Standards (MATS) Anclocte 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	43,388	43,388	43,388	43,388	43,388	43,388	43,388	43,388	43,388	43,388	43,388	43,388	520,656
19	Reclaimed Water Interconnection - Energy	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Lead and Copper Rule - Base	0	0	0	0	30,000	0	0	0	0	0	0	0	30,000
2	Total O&M Activities - Recoverable Costs	\$922,627	\$837,361	\$685,616	\$681,744	\$969,627	\$984,635	\$922,578	\$867,283	\$890,691	\$993,235	\$937,332	\$847,629	\$10,540,358
3	Recoverable Costs Allocated to Energy	879,301	754,036	629,291	638,418	944,135	947,143	815,086	824,791	840,199	950,743	886,840	800,137	9,910,120
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	22,492	62,492	35,492	22,492	52,492	30,492	22,492	22,492	30,492	22,492	30,492	27,492	381,904
	Recoverable Costs Allocated to Demand - Prod-Intm	20,834	20,833	20,833	20,834	3,000	7,000	85,000	20,000	20,000	20,000	20,000	20,000	278,334
	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	0.98579	0.98377	0.97959	0.97618	0.97899	0.97525	0.97144	0.97585	0.97930	0.97390	0.97520	0.95887	
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)	866,805	741,800	616,450	623,210	924,296	923,701	791,808	804,876	822,806	925,933	864,844	767,225	9,673,754
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)	21,908	60,869	34,570	21,908	51,129	29,700	21,908	21,908	29,700	21,908	29,700	26,778	371,986
	Jurisdictional Demand Recoverable Costs - Prod-Intm (B)	19,300	19,299	19,299	19,300	2,779	6,485	78,742	18,527	18,527	18,527	18,527	18,527	257,839
	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)	\$908,013	\$821,968	\$670,319	\$664,418	\$978,204	\$959,886	\$892,458	\$845,311	\$871,033	\$966,368	\$913,071	\$812,530	\$10,303,579

Notes:

(A) Line 3 x Line 5

(B) Line 4 x Line 6

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Calculation of Projection Amount
January 2024 - December 2024

Form 42-3P

Docket No. 20230007-EI
 Duke Energy Florida, LLC
 Witness: G. P. Dean
 Exh. No. ___ (GPD-3)
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Capital Investment Projects-Recoverable Costs
(in Dollars)

Line	Description	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	End of Period Total
1	Investment Projects - System (A)													
3.1	Pipeline Integrity Management - Bartow/Anclote Pipeline - Intm	\$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 - Intm	0	0	0	0	0	0	0	0	0	0	0	0	0
5	SO2/NOX Emissions Allowances - Energy	21,520	21,517	21,516	21,515	21,513	21,511	21,509	21,508	21,506	21,504	21,503	21,501	258,123
6	Phase II Cooling Water Intake 316(b) - Base	124,911	124,627	124,343	124,057	123,773	123,488	123,204	122,919	122,634	122,350	122,065	121,781	1,480,152
6.1	Phase II Cooling Water Intake 316(b) - Base - Bartow	2,773	3,109	3,443	3,779	4,114	4,450	4,785	5,121	5,456	5,792	6,127	6,463	55,412
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- 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
7.3	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	35,424	35,424	35,424	35,424	35,424	35,424	35,424	35,424	35,424	35,424	35,424	35,424	425,093
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	0	0	0	0	0	0	0	0
9	Sea Turtle - Coastal Street Lighting -Distrib	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 - Intm	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	25,890	25,818	25,746	25,673	25,600	25,527	25,455	25,382	25,310	25,236	25,164	25,092	305,893
16	National Pollutant Discharge Elimination System (NPDES) - Intm	101,912	101,679	101,446	101,214	100,981	100,748	100,516	100,283	100,052	99,819	99,586	99,354	1,207,590
17	Mercury & Air Toxic Standards (MATS) CR4 & CR5 - Energy	34,152	34,050	33,947	33,845	33,742	33,639	33,537	33,435	33,331	33,229	33,127	33,024	403,058
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	43,505	43,385	43,265	43,144	43,025	42,905	42,785	42,665	42,545	42,424	42,304	42,184	514,136
19	Reclaimed Water Interconnection - Peaking	10	31	239	447	469	677	884	906	1,114	1,321	1,344	1,551	8,993
20	Lead and Copper Rule - Base	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Total Investment Projects - Recoverable Costs	\$390,097	\$389,640	\$389,369	\$389,098	\$388,641	\$388,369	\$388,099	\$387,643	\$387,372	\$387,099	\$386,644	\$386,374	\$4,658,450
3	Recoverable Costs Allocated to Energy	91,096	90,991	90,887	90,784	90,679	90,574	90,470	90,367	90,261	90,157	90,054	89,949	1,086,274
	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	197,079	196,939	196,797	196,653	196,512	196,370	196,229	196,087	195,945	195,802	195,660	195,520	2,355,593
	Recoverable Costs Allocated to Demand - Production - Intermediate	101,912	101,679	101,446	101,214	100,981	100,748	100,516	100,283	100,052	99,819	99,586	99,354	1,207,590
	Recoverable Costs Allocated to Demand - Production - Peaking	10	31	239	447	469	677	884	906	1,114	1,321	1,344	1,551	8,993
5	Retail Energy Jurisdictional Factor	0.98579	0.98377	0.97959	0.97618	0.97899	0.97525	0.97144	0.97585	0.97930	0.97390	0.97520	0.95887	
	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	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	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	0.95110
7	Jurisdictional Energy Recoverable Costs (B)	89,802	89,515	89,033	88,622	88,774	88,333	87,887	88,185	88,393	87,805	87,821	86,250	1,060,418
	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)	191,961	191,824	191,686	191,546	191,409	191,270	191,133	190,995	190,856	190,717	190,579	190,442	2,294,418
	Jurisdictional Demand Recoverable Costs - Production - Intermediate (C)	94,408	94,193	93,977	93,762	93,546	93,330	93,115	92,899	92,685	92,470	92,254	92,039	1,118,678
	Jurisdictional Demand Recoverable Costs - Production - Peaking (C)	10	29	227	425	446	644	841	862	1,060	1,256	1,278	1,475	8,553
9	Total Jurisdictional Recoverable Costs - Investment Projects (Lines 7 + 8)	\$376,181	\$375,561	\$374,923	\$374,355	\$374,175	\$373,577	\$372,976	\$372,941	\$372,994	\$372,248	\$371,932	\$370,206	\$4,482,068

Notes:
 (A) Each project's Total System Recoverable Expenses on Form 42-4P, Line 9; Form 42-4P, 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
Environmental Cost Recovery Clause
Calculation of Projection Amount
January 2024 - December 2024

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

Line	Description	Beginning of Period Amount	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	End of Period Total
1	Working Capital Dr (Cr)														
	a. 0158150 SO ₂ Emission Allowance Inventory	\$3,208,084	\$3,207,700	\$3,207,409	\$3,207,270	\$3,207,128	\$3,206,785	\$3,206,426	\$3,206,192	\$3,205,950	\$3,205,736	\$3,205,495	\$3,205,247	\$3,205,026	\$3,205,026
	b. 0254020 Auctioned SO ₂ Allowance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	c. 0158170 NO _x 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	<u>\$3,208,084</u>	<u>\$3,207,700</u>	<u>\$3,207,409</u>	<u>\$3,207,270</u>	<u>\$3,207,128</u>	<u>\$3,206,785</u>	<u>\$3,206,426</u>	<u>\$3,206,192</u>	<u>\$3,205,950</u>	<u>\$3,205,736</u>	<u>\$3,205,495</u>	<u>\$3,205,247</u>	<u>\$3,205,026</u>	<u>\$3,205,026</u>
3	Average Net Investment		\$3,207,892	\$3,207,555	\$3,207,339	\$3,207,199	\$3,206,957	\$3,206,606	\$3,206,309	\$3,206,071	\$3,205,843	\$3,205,615	\$3,205,371	\$3,205,136	
4	Return on Average Net Working Capital Balance (B)														
	a. Debt Component 1.82%		4,871	4,870	4,870	4,870	4,869	4,869	4,868	4,868	4,868	4,867	4,867	4,866	58,423
	b. Equity Component Grossed Up For Taxes 6.23%		16,649	16,647	16,646	16,645	16,644	16,642	16,641	16,640	16,638	16,637	16,636	16,635	199,700
5	Total Return Component (C)		<u>\$21,520</u>	<u>\$21,517</u>	<u>\$21,516</u>	<u>\$21,515</u>	<u>\$21,513</u>	<u>\$21,511</u>	<u>\$21,509</u>	<u>\$21,508</u>	<u>\$21,506</u>	<u>\$21,504</u>	<u>\$21,503</u>	<u>\$21,501</u>	<u>258,123</u>
6	Expense Dr (Cr)														
	a. 0509030 SO ₂ Allowance Expense		\$384	\$292	\$139	\$142	\$343	\$359	\$234	\$241	\$215	\$241	\$248	\$221	3,059
	b. 0407426 Amortization Expense		0	0	0	0	0	0	0	0	0	0	0	0	0
	c. 0509212 NO _x 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)		<u>384</u>	<u>292</u>	<u>139</u>	<u>142</u>	<u>343</u>	<u>359</u>	<u>234</u>	<u>241</u>	<u>215</u>	<u>241</u>	<u>248</u>	<u>221</u>	<u>3,059</u>
8	Total System Recoverable Expenses (Lines 5 + 7)		\$21,904	\$21,809	\$21,655	\$21,657	\$21,856	\$21,870	\$21,743	\$21,749	\$21,721	\$21,745	\$21,751	\$21,722	261,182
	a. Recoverable costs allocated to Energy		\$21,904	\$21,809	\$21,655	\$21,657	\$21,856	\$21,870	\$21,743	\$21,749	\$21,721	\$21,745	\$21,751	\$21,722	261,182
	b. Recoverable costs allocated to Demand		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0
9	Energy Jurisdictional Factor		0.98579	0.98377	0.97959	0.97618	0.97899	0.97525	0.97144	0.97585	0.97930	0.97390	0.97520	0.95887	
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)		\$21,593	\$21,455	\$21,213	\$21,141	\$21,396	\$21,329	\$21,122	\$21,224	\$21,271	\$21,177	\$21,212	\$20,828	254,962
12	Retail Demand-Related Recoverable Costs (F)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
13	Total Jurisdictional Recoverable Costs (Lines 11 + 12)		<u>\$ 21,593</u>	<u>\$ 21,455</u>	<u>\$ 21,213</u>	<u>\$ 21,141</u>	<u>\$ 21,396</u>	<u>\$ 21,329</u>	<u>\$ 21,122</u>	<u>\$ 21,224</u>	<u>\$ 21,271</u>	<u>\$ 21,177</u>	<u>\$ 21,212</u>	<u>\$ 20,828</u>	<u>\$ 254,962</u>

Notes:

- (A) N/A
- (B) Line 3 x 8.05% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.59% 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
Environmental Cost Recovery Clause
Calculation of Projection Amount
January 2024 - December 2024

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	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	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	\$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	13,196,239	13,196,239	13,196,239	13,196,239
3	Less: Accumulated Depreciation	(881,683)	(924,111)	(966,539)	(1,008,967)	(1,051,395)	(1,093,823)	(1,136,251)	(1,178,679)	(1,221,107)	(1,263,535)	(1,305,963)	(1,348,391)	(1,390,819)	
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)	\$12,314,556	\$12,272,128	\$12,229,700	\$12,187,272	\$12,144,844	\$12,102,416	\$12,059,988	\$12,017,560	\$11,975,132	\$11,932,704	\$11,890,276	\$11,847,848	\$11,805,420	
6	Average Net Investment		\$12,293,342	\$12,250,914	\$12,208,486	\$12,166,058	\$12,123,630	\$12,081,202	\$12,038,774	\$11,996,346	\$11,953,918	\$11,911,490	\$11,869,062	\$11,826,634	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.82%	18,665	18,601	18,537	18,472	18,408	18,343	18,279	18,214	18,150	18,086	18,021	17,957	219,733
	b. Equity Component Grossed Up For Taxes	6.23%	63,803	63,583	63,363	63,142	62,922	62,702	62,482	62,262	62,041	61,821	61,601	61,381	751,103
	c. Other (A)		0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses														
	a. Depreciation (C)	3.8582%	42,428	42,428	42,428	42,428	42,428	42,428	42,428	42,428	42,428	42,428	42,428	42,428	509,136
	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)	0.000014	15	15	15	15	15	15	15	15	15	15	15	15	180
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		\$124,911	\$124,627	\$124,343	\$124,057	\$123,773	\$123,488	\$123,204	\$122,919	\$122,634	\$122,350	\$122,065	\$121,781	1,480,152
	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		124,911	124,627	124,343	124,057	123,773	123,488	123,204	122,919	122,634	122,350	122,065	121,781	1,480,152
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		0.97403	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)		121,667	121,390	121,114	120,835	120,559	120,281	120,004	119,727	119,449	119,173	118,895	118,618	1,441,712
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$121,667	\$121,390	\$121,114	\$120,835	\$120,559	\$120,281	\$120,004	\$119,727	\$119,449	\$119,173	\$118,895	\$118,618	\$1,441,712

Notes:

- (A) N/A
- (B) Line 6 x 8.05% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.59% 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 2022 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
Calculation of Projection Amount
January 2024 - December 2024

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	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	End of Period Total
1	Investments														
	a. Expenditures/Additions		\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$600,000
	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	388,360	438,360	488,360	538,360	588,360	638,360	688,360	738,360	788,360	838,360	888,360	938,360	988,360	
5	Net Investment (Lines 2 + 3 + 4)	\$388,360	\$438,360	\$488,360	\$538,360	\$588,360	\$638,360	\$688,360	\$738,360	\$788,360	\$838,360	\$888,360	\$938,360	\$988,360	
6	Average Net Investment		\$413,360	\$463,360	\$513,360	\$563,360	\$613,360	\$663,360	\$713,360	\$763,360	\$813,360	\$863,360	\$913,360	\$963,360	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.82%	628	704	779	855	931	1,007	1,083	1,159	1,235	1,311	1,387	1,463	12,542
	b. Equity Component Grossed Up For Taxes	6.23%	2,145	2,405	2,664	2,924	3,183	3,443	3,702	3,962	4,221	4,481	4,740	5,000	42,870
	c. Other (A)		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)	0.000014	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)		\$2,773	\$3,109	\$3,443	\$3,779	\$4,114	\$4,450	\$4,785	\$5,121	\$5,456	\$5,792	\$6,127	\$6,463	55,412
	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		2,773	3,109	3,443	3,779	4,114	4,450	4,785	5,121	5,456	5,792	6,127	6,463	55,412
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)		0.97403	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)		2,701	3,028	3,354	3,681	4,007	4,334	4,661	4,988	5,314	5,642	5,968	6,295	53,973
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$2,701	\$3,028	\$3,354	\$3,681	\$4,007	\$4,334	\$4,661	\$4,988	\$5,314	\$5,642	\$5,968	\$6,295	\$53,973

Notes:

- (A) N/A
- (B) Line 6 x 8.05% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.59% 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 2022 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
Calculation of Projection Amount
January 2024 - December 2024

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	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	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		1.82%	0	0	0	0	0	0	0	0	0	0	0	0
	b. Equity Component Grossed Up For Taxes		6.23%	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
8	Investment Expenses														
	a. Depreciation (C)		10.3694%	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
	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
	d. Property Taxes (D)		0.000014	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
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)		0.92637	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 8.05% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.59% 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 2022 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
Calculation of Projection Amount
January 2024 - December 2024

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	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	End of Period Total
1	Working Capital Dr (Cr)														
	a. 0154401 Ammonia Inventory	\$3,708,049	\$3,708,049	\$3,708,049	\$3,708,049	\$3,708,049	\$3,708,049	\$3,708,049	\$3,708,049	\$3,708,049	\$3,708,049	\$3,708,049	\$3,708,049	\$3,708,049	3,708,049
	b. 0154200 Limestone Inventory	\$1,572,578	1,572,578	1,572,578	1,572,578	1,572,578	1,572,578	1,572,578	1,572,578	1,572,578	1,572,578	1,572,578	1,572,578	1,572,578	1,572,578
2	Total Working Capital	\$5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628
3	Average Net Investment		5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628	5,280,628
4	Return on Average Net Working Capital Balance (A)														
	a. Debt Component	1.82%	8,018	8,018	8,018	8,018	8,018	8,018	8,018	8,018	8,018	8,018	8,018	8,018	\$96,213
	b. Equity Component Grossed Up For Taxes	6.23%	27,407	27,407	27,407	27,407	27,407	27,407	27,407	27,407	27,407	27,407	27,407	27,407	328,880
5	Total Return Component (B)		35,424	35,424	35,424	35,424	35,424	35,424	35,424	35,424	35,424	35,424	35,424	35,424	425,093
6															
	a. 0502010 Ammonia Expense		87,000	87,000	162,000	162,000	168,053	168,053	202,753	202,753	202,753	202,753	202,753	202,753	2,050,627
	b. 0502040 Limestone Expense		503,938	381,454	184,311	189,359	460,837	475,470	312,476	322,971	289,185	325,021	334,810	298,941	4,078,773
	c. 0502050 Dibasic Acid Expense		0	0	0	0	0	0	0	0	0	0	0	0	
	d. 0502070 Gypsum Disposal/Sale		11,191	8,502	4,053	4,128	9,988	10,472	6,834	7,038	6,258	7,016	7,240	6,434	89,155
	e. 0502040 Hydrated Lime Expense		152,400	152,400	154,400	154,400	164,400	164,400	164,400	164,400	164,400	164,400	164,400	164,400	1,928,800
	f. 0502300 Caustic Expense		81,000	81,000	81,000	85,000	85,000	85,000	84,000	84,000	84,000	84,000	84,000	84,000	1,003,000
7	Net Expense (C)		835,529	710,356	585,764	594,888	888,279	903,396	771,463	781,162	746,596	783,190	793,204	756,528	9,150,355
8	Total System Recoverable Expenses (Lines 5 + 7)		\$870,953	\$745,781	\$621,189	\$630,312	\$923,703	\$938,820	\$806,888	\$816,586	\$782,020	\$818,614	\$828,628	\$791,952	\$9,575,448
	a. Recoverable Costs Allocated to Energy		870,953	745,781	621,189	630,312	923,703	938,820	806,888	816,586	782,020	818,614	828,628	791,952	9,575,448
	b. Recoverable Costs Allocated to Demand		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
9	Energy Jurisdictional Factor		0.98579	0.98377	0.97959	0.97618	0.97899	0.97525	0.97144	0.97585	0.97930	0.97390	0.97520	0.95887	
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)		858,576	733,679	608,513	615,298	904,294	915,584	783,844	796,869	765,832	797,252	808,076	759,377	9,347,194
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)		\$ 858,576	\$ 733,679	\$ 608,513	\$ 615,298	\$ 904,294	\$ 915,584	\$ 783,844	\$ 796,869	\$ 765,832	\$ 797,252	\$ 808,076	\$ 759,377	\$ 9,347,194

Notes:

- (A) Line 3 x 8.05% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.59% 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, LLC
Environmental Cost Recovery Clause
Calculation of Projection Amount
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Duke Energy Florida, LLC
Witness: G. P. Dean
Exh. No. ___ (GPD-3)
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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	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	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	
3	Less: Accumulated Depreciation	(362,099)	(372,923)	(383,747)	(394,571)	(405,395)	(416,219)	(427,043)	(437,867)	(448,691)	(459,515)	(470,339)	(481,163)	(491,987)	
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)	\$2,250,880	\$2,240,056	\$2,229,232	\$2,218,408	\$2,207,584	\$2,196,760	\$2,185,936	\$2,175,112	\$2,164,288	\$2,153,464	\$2,142,640	\$2,131,816	\$2,120,992	
6	Average Net Investment		\$2,245,468	\$2,234,644	\$2,223,820	\$2,212,996	\$2,202,172	\$2,191,348	\$2,180,524	\$2,169,700	\$2,158,876	\$2,148,052	\$2,137,228	\$2,126,404	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.82%	3,409	3,393	3,377	3,360	3,344	3,327	3,311	3,294	3,278	3,261	3,245	3,229	39,828
	b. Equity Component Grossed Up For Taxes	6.23%	11,654	11,598	11,542	11,486	11,429	11,373	11,317	11,261	11,205	11,148	11,092	11,036	136,141
	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)	0.000014	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)		\$25,890	\$25,818	\$25,746	\$25,673	\$25,600	\$25,527	\$25,455	\$25,382	\$25,310	\$25,236	\$25,164	\$25,092	305,893
	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		25,890	25,818	25,746	25,673	25,600	25,527	25,455	25,382	25,310	25,236	25,164	25,092	305,893
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)		25,218	25,148	25,077	25,006	24,935	24,864	24,794	24,723	24,653	24,581	24,510	24,440	297,949
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$25,218	\$25,148	\$25,077	\$25,006	\$24,935	\$24,864	\$24,794	\$24,723	\$24,653	\$24,581	\$24,510	\$24,440	\$297,949

Notes:

- (A) N/A
- (B) Line 6 x 8.05% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.59% 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 2022 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
Calculation of Projection Amount
January 2024 - December 2024**

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Duke Energy Florida, LLC
Witness: G. P. Dean
Exh. No. ___ (GPD-3)
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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	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	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	(3,832,710)	(3,867,377)	(3,902,044)	(3,936,711)	(3,971,378)	(4,006,045)	(4,040,712)	(4,075,379)	(4,110,046)	(4,144,713)	(4,179,380)	(4,214,047)	(4,248,714)	
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)	\$9,009,160	\$8,974,493	\$8,939,826	\$8,905,159	\$8,870,492	\$8,835,825	\$8,801,158	\$8,766,491	\$8,731,824	\$8,697,157	\$8,662,490	\$8,627,823	\$8,593,156	
6	Average Net Investment		\$8,991,827	\$8,957,160	\$8,922,493	\$8,887,826	\$8,853,159	\$8,818,492	\$8,783,825	\$8,749,158	\$8,714,491	\$8,679,824	\$8,645,157	\$8,610,490	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.82%	13,653	13,600	13,547	13,495	13,442	13,389	13,337	13,284	13,232	13,179	13,126	13,074	160,358
	b. Equity Component Grossed Up For Taxes	6.23%	46,668	46,488	46,308	46,128	45,948	45,768	45,588	45,408	45,229	45,049	44,869	44,689	548,140
	c. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses														
	a. Depreciation (C)	3.239%	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)	0.006470	6,924	6,924	6,924	6,924	6,924	6,924	6,924	6,924	6,924	6,924	6,924	6,924	83,088
	e. Other		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		\$101,912	\$101,679	\$101,446	\$101,214	\$100,981	\$100,748	\$100,516	\$100,283	\$100,052	\$99,819	\$99,586	\$99,354	1,207,590
	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		\$101,912	\$101,679	\$101,446	\$101,214	\$100,981	\$100,748	\$100,516	\$100,283	\$100,052	\$99,819	\$99,586	\$99,354	1,207,590
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)		94,408	94,193	93,977	93,762	93,546	93,330	93,115	92,899	92,685	92,470	92,254	92,039	1,118,678
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$94,408	\$94,193	\$93,977	\$93,762	\$93,546	\$93,330	\$93,115	\$92,899	\$92,685	\$92,470	\$92,254	\$92,039	\$1,118,678

Notes:

- (A) N/A
- (B) Line 6 x 8.05% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.59% 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 2022 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
Calculation of Projection Amount
January 2024 - December 2024

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	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	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	Less: Accumulated Depreciation	(870,797)	(886,083)	(901,369)	(916,655)	(931,941)	(947,227)	(962,513)	(977,799)	(993,085)	(1,008,371)	(1,023,657)	(1,038,943)	(1,054,229)	
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)	\$2,819,390	\$2,804,104	\$2,788,818	\$2,773,532	\$2,758,246	\$2,742,960	\$2,727,674	\$2,712,388	\$2,697,102	\$2,681,816	\$2,666,530	\$2,651,244	\$2,635,958	
6	Average Net Investment		\$2,811,747	\$2,796,461	\$2,781,175	\$2,765,889	\$2,750,603	\$2,735,317	\$2,720,031	\$2,704,745	\$2,689,459	\$2,674,173	\$2,658,887	\$2,643,601	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.82%	4,269	4,246	4,223	4,200	4,176	4,153	4,130	4,107	4,083	4,060	4,037	4,014	49,698
	b. Equity Component Grossed Up For Taxes	6.23%	14,593	14,514	14,434	14,355	14,276	14,196	14,117	14,038	13,958	13,879	13,800	13,720	169,880
	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)	0.000014	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)		\$34,152	\$34,050	\$33,947	\$33,845	\$33,742	\$33,639	\$33,537	\$33,435	\$33,331	\$33,229	\$33,127	\$33,024	403,058
	a. Recoverable Costs Allocated to Energy		34,152	34,050	33,947	33,845	33,742	33,639	33,537	33,435	33,331	33,229	33,127	33,024	403,058
	b. Recoverable Costs Allocated to Demand		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0
10	Energy Jurisdictional Factor		0.98579	0.98377	0.97959	0.97618	0.97899	0.97525	0.97144	0.97585	0.97930	0.97390	0.97520	0.95887	
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)		\$33,667	\$33,497	\$33,254	\$33,039	\$33,033	\$32,806	\$32,579	\$32,628	\$32,641	\$32,362	\$32,305	\$31,666	\$393,477
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)		\$33,667	\$33,497	\$33,254	\$33,039	\$33,033	\$32,806	\$32,579	\$32,628	\$32,641	\$32,362	\$32,305	\$31,666	\$393,477

Notes:

- (A) N/A
- (B) Line 6 x 8.05% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.59% 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 2022 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
Calculation of Projection Amount
January 2024 - December 2024

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	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	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	\$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 (A)	(\$496,583)	(514,484)	(532,385)	(550,286)	(568,187)	(586,088)	(603,989)	(621,890)	(639,791)	(657,692)	(675,593)	(693,494)	(711,395)	
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)	\$3,824,950	\$3,807,049	\$3,789,148	\$3,771,247	\$3,753,346	\$3,735,445	\$3,717,544	\$3,699,643	\$3,681,742	\$3,663,841	\$3,645,940	\$3,628,039	\$3,610,138	
6	Average Net Investment		\$3,815,999	\$3,798,098	\$3,780,197	\$3,762,296	\$3,744,395	\$3,726,494	\$3,708,593	\$3,690,692	\$3,672,791	\$3,654,890	\$3,636,989	\$3,619,088	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.82%	5,794	5,767	5,740	5,712	5,685	5,658	5,631	5,604	5,577	5,549	5,522	5,495	67,734
	b. Equity Component Grossed Up For Taxes	6.23%	19,805	19,712	19,619	19,526	19,434	19,341	19,248	19,155	19,062	18,969	18,876	18,783	231,530
	c. Other (A)		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	214,812
	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)	0.000014	5	5	5	5	5	5	5	5	5	5	5	5	60
	e. Other (A)		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		\$43,505	\$43,385	\$43,265	\$43,144	\$43,025	\$42,905	\$42,785	\$42,665	\$42,545	\$42,424	\$42,304	\$42,184	514,136
	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		43,505	43,385	43,265	43,144	43,025	42,905	42,785	42,665	42,545	42,424	42,304	42,184	514,136
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)		42,375	42,258	42,141	42,024	41,908	41,791	41,674	41,557	41,440	41,322	41,205	41,088	500,784
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$42,375	\$42,258	\$42,141	\$42,024	\$41,908	\$41,791	\$41,674	\$41,557	\$41,440	\$41,322	\$41,205	\$41,088	\$500,784

Notes:

- (A) N/A
- (B) Line 6 x 8.05% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.59% 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 2022 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
Calculation of Projection Amount
January 2024 - December 2024

Return on Capital Investments, Depreciation and Taxes
For Project: RECLAIMED WATER INTERCONNECTION - Peaking (Project 19)
(in Dollars)

Line	Description	Beginning of Period Amount	Estimated Jan-24	Estimated Feb-24	Estimated Mar-24	Estimated Apr-24	Estimated May-24	Estimated Jun-24	Estimated Jul-24	Estimated Aug-24	Estimated Sep-24	Estimated Oct-24	Estimated Nov-24	Estimated Dec-24	End of Period Total
1	Investments														
	a. Expenditures/Additions		\$3,000	\$3,200	\$58,820	\$3,200	\$3,400	\$58,600	\$3,000	\$3,800	\$58,200	\$3,400	\$3,600	\$57,800	\$260,020
	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 (A)	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	CWIP - Non-Interest Bearing	0	3,000	6,200	65,020	68,220	71,620	130,220	133,220	137,020	195,220	198,620	202,220	260,020	
5	Net Investment (Lines 2 + 3 + 4)	\$0	\$3,000	\$6,200	\$65,020	\$68,220	\$71,620	\$130,220	\$133,220	\$137,020	\$195,220	\$198,620	\$202,220	\$260,020	
6	Average Net Investment		\$1,500	\$4,600	\$35,610	\$66,620	\$69,920	\$100,920	\$131,720	\$135,120	\$166,120	\$196,920	\$200,420	\$231,120	
7	Return on Average Net Investment (B)														
	a. Debt Component	1.82%	2	7	54	101	106	153	200	205	252	299	304	351	2,034
	b. Equity Component Grossed Up For Taxes	6.23%	8	24	185	346	363	524	684	701	862	1,022	1,040	1,200	6,959
	c. Other (A)		0	0	0	0	0	0	0	0	0	0	0	0	0
8	Investment Expenses														
	a. Depreciation (C)	2.1843%	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)	0.015431	0	0	0	0	0	0	0	0	0	0	0	0	0
	e. Other (A)		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Total System Recoverable Expenses (Lines 7 + 8)		\$10	\$31	\$239	\$447	\$469	\$677	\$884	\$906	\$1,114	\$1,321	\$1,344	\$1,551	8,993
	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		10	31	239	447	469	677	884	906	1,114	1,321	1,344	1,551	8,993
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		0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110	0.95110
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)		10	29	227	425	446	644	841	862	1,060	1,256	1,278	1,475	8,553
14	Total Jurisdictional Recoverable Costs (Lines 12 + 13)		\$10	\$29	\$227	\$425	\$446	\$644	\$841	\$862	\$1,060	\$1,256	\$1,278	\$1,475	\$8,553

Notes:

- (A) N/A
- (B) Line 6 x 8.05% x 1/12. Based on ROE of 10.10%, weighted cost of equity component of capital structure of 4.59% 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 2022 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
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Docket No. 20230007-EI
Duke Energy Florida, LLC
Witness: G. P. Dean
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Project Title: Substation Environmental Investigation, Remediation and Pollution Prevention
Project No. 1

Project Description:

Chapter 376 Florida Statutes requires that any person discharging a prohibited pollutant shall undertake to contain, remove and abate the discharge to the satisfaction of the FDEP. Similarly, Chapter 403 Florida Statutes provides that it is prohibited to cause pollution so as to harm or injure human health or welfare, animal, plant, or aquatic life or property. For DEF to comply with these statutes, it is actively conducting remediation and pollution prevention activities at its substation sites to remove the existence of pollutant discharges. Activities also include development and implementation of best management and pollution prevention measures at these sites.

Project Accomplishments:

The remediation portion of the Substation Assessment and Remedial Action Plan has been completed for all of the 279 SARAP substation sites. The Amended Deed Restrictive Covenant ("DRC") for West Lake Wales Substation has been approved by FDEP. The proposed DRC for Central Florida Substation submitted for approval to FDEP in July 2020. Project is complete as of first quarter 2021.

Project Fiscal Expenditures:

This project is complete, no further charges are expected.

Project Progress Summary:

This project is complete as of 1st quarter 2021.

Project Projections:

No further charges are expected to hit this project.

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
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Docket No. 20230007-EI
Duke Energy Florida, LLC
Witness: G. P. Dean
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Project Title: Distribution System Environmental Investigation, Remediation and Pollution Prevention
Project No. 2

Project Description:

Chapter 376 Florida Statutes requires that any person discharging a prohibited pollutant shall undertake to contain, remove and abate the discharge to the satisfaction of the FDEP. Similarly, Chapter 403 Florida Statutes provides that it is prohibited to cause pollution so as to harm or injure human health or welfare, animal, plant, or aquatic life or property. For DEF to comply with these statutes, it is actively conducting remediation and pollution prevention activities at its distribution sites to remove the existence of pollutant discharges. Activities also include development and implementation of best management and pollution prevention measures at these sites.

Project Accomplishments:

All TRIP sites source removals are completed. The Final TRIP has been completed and the NAM report submitted to FDEP 4-4-19.

Project Fiscal Expenditures:

No further charges are expected to hit this project.

Project Progress Summary:

This project is complete.

Project Projections:

No further charges are expected to hit this project.

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
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Docket No. 20230007-EI
Duke Energy Florida, LLC
Witness: G. P. Dean
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Project Title: Pipeline Integrity Management (PIM) - Bartow/Anclote Pipeline
Project No. 3

Project Description:

The U.S. Department of Transportation (USDOT) Regulation 49 CFR Part 195, as amended effective 2/15/02, and the new regulation published at 67 Federal Register 2136 on 1/16/02, requires DEF to implement a PIM program. Prior to the 2/15/02 amendments, the USDOT's PIM regulations applied only to operators with 500 miles or more of hazardous liquid and carbon dioxide pipelines that could affect high consequence areas. The amendments which became effective on 2/15/02, extended the requirements for implementing integrity management to operators who have less than 500 miles of regulated pipelines. As such, DEF must maintain the integrity of pipeline systems in order to protect public safety and the environment, and comply with continual assessment and evaluation of pipeline systems integrity through inspection or testing, data integration and analysis, and follow up with remedial, preventative, and mitigative actions. DEF owns one hazardous liquid pipeline, Bartow/Anclote 14-inch hot oil pipeline, extending 33.3 miles from the Company's Bartow Plant north of St. Petersburg to the Anclote Plant in Holiday, that is subject to PIM regulations.

Effective 2/2010, amendments to 49 CFR 195 were finalized to improve opportunities to reduce risk through more effective control of pipelines. Compliance with these amendments will enhance pipeline safety by coupling strengthened control room management with improved controller training and fatigue management. On 6/16/11, the USDOT published in the Federal Register (Vol. 76, 35130-35136), a final rule effective 8/15/11, that expedites the program implementation deadlines in the Control Room Management/Human Factors regulations in order to realize the safety benefits sooner than established in the original rule. This final rule amends the program implementation deadlines for different procedures to no later than 10/21/11 and 8/1/12.

Project Accomplishments:

Since the Bartow Anclote Pipeline (BAP) contained a small quantity of #6 fuel oil, the PIM program under 49CFR195 continues to be maintained. Third party projects by Florida Department of Transportation (FDOT), Florida Gas Transmission, Pinellas County, The City of Pinellas Park, and others have been evaluated for their risk to BAP integrity. Risk mitigation measures have been completed per 49CFR195.450. The BAP Risk Analysis has been updated. The Annual Report and National Pipeline Mapping System (NPMS) annual review have been completed. Reviews and evaluations are also being completed for Advisory Bulletins 11-04, 13-02, 15-01, and 15-02, relating to flooding and hurricanes. BAP personnel have participated in US Department of Transportation Pipeline and Hazardous Material Safety Administration (PHMSA), utility owners groups, damage prevention groups, and FDOT workshops and training. Pipeline accidents and PHMSA enforcement actions have been reviewed for conditions that are applicable to the BAP and appropriate changes to BAP practices and procedures have been implemented. Pipeline records are being organized and stored with the conversion to electronic storage now essentially complete.

In 2016, pipeline ownership was transferred from the Fossil Hydro Operations group to Plant Retirement and Demolition, in preparation for pipeline retirement that is expected to occur in 2016. Once retired, the pipeline will be cleaned to remove any remaining oil. Once cleaned, the requirements described above in the PIM program will no longer be required. Cleaning is expected to occur in 2016, with any required demolition activities in 2017. As of the end of 2016, three of the four sub-projects were retired and approved to be amortized over three years - Project 3.1b Pipeline Leak Detection, Project 3.1c Pipeline Controls Upgrade, and Project 3.1d Control Room Management.

The final sub-project 3.1a - Alderman Road Fence was retired June 2017 and approved as a regulatory asset. This was amortized over 26 months, and all four parts of this project are fully amortized as of September 2019.

Project Fiscal Expenditures:

No capital or O&M expenditures are estimated for this project.

Project Progress Summary:

Projects 3.1b (Pipeline leak Detection), 3.1c (Pipeline Controls Upgrade), and 3.1d (Control Room Management) were retired August 2016. Project 3.1a (Alderman Road Fence) retired June 2017. All are fully amortized as of September 2019.

Project Projections:

No capital or O&M expenditures are estimated for this project.

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Project Title: Above Ground Storage Tank Secondary Containment
Project No. 4

Project Description:

FDEP Rule 62-761.510(3) states that DEF is required to make improvements to its above ground petroleum storage tanks in order to comply with those provisions. Subsection (d) of the rule requires all internally lined single bottom above ground storage tanks to be upgraded with secondary containment, including secondary containment for piping in contact with the soil. Rule 62-761.500(1)(e) also requires that dike field area containment for pre-1998 tanks be upgraded, if needed, to comply with the requirement.

Project Accomplishments:

DEF has completed work at Debary 1 and 2, Turner 7, Turner 8, Higgins 1, and Bartow 6 as well as Turner P-1 and P-2 piping work.

Project Fiscal Expenditures:

No ECRC project expenditures are expected for this project.

Project Progress Summary:

DEF continually evaluates its compliance program, including project prioritization, schedule and technology applications. Project 4.1a (Turner CTs) retired in March 2016.

Project was moved to base rates as of January 2022, per Order No. PSC-2021-0202-AS-EI.

Project Projections:

No ECRC project expenditures are expected for this project.

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Project Title: SO₂ and NO_x Emissions Allowances
Project No. 5

Project Description:

In accordance with the Acid Rain Program in Title IV of the Clean Air Act, CFR 40 Part 73 and Part 76, Florida Administrative Code Rule 62-214 and the Clean Air Interstate Rule (CAIR), DEF manages sulfur dioxide (SO₂) and nitrogen oxide (NO_x) allowance inventory to offset emissions. On 7/6/11, the EPA issued the Cross-State Air Pollution Rule (CSAPR) to replace the CAIR. The CSAPR significantly alters SO₂ and NO_x allowance programs. Under the CAIR, Florida has to comply with annual SO₂ and NO_x emission requirements, and seasonal NO_x emission requirements. Under the CSAPR, Florida is no longer required to comply with annual emissions requirements, only ozone seasonal limits. On 8/8/11, the final CSAPR was published in the Federal Register. The CSAPR sets state-level annual and seasonal SO₂ and NO_x emission allowance requirements effective 1/1/12.

On 8/21/12, the D.C. Circuit Court vacated the CSAPR. It also directed the EPA to continue administering the CAIR which requires additional reductions in SO₂ and NO_x emissions beginning in 2015. On 4/29/14, the U.S. Supreme Court reversed the D.C. Circuit Court decision finding that with CSAPR the EPA reasonably interpreted the good neighbor provision of the Clean Air Act. The case was then remanded to the D.C. Circuit Court for further proceedings, and the EPA requested the court lift the CSAPR stay and direct it to take effect on 1/1/15. On 10/23/14 the D.C. Circuit Court lifted the CSAPR stay. On 1/1/15, the CSAPR replaced the CAIR. The CSAPR took effect in Florida on 5/1/15. Consequently, CAIR NO_x emission allowances have no value; however, SO₂ emission allowances can continue to be used to comply with the Acid Rain Program. DEF treated its unused NO_x costs as a regulatory asset amortizing it over 3 years, as approved by the Commission in Order No. PSC-2011-0553-FOF-EI. These are fully recovered as of December 2017.

Project Accomplishments:

Air quality compliance costs are administered by an authorized account representative who evaluates a variety of resources and options. Activities performed include purchases of SO₂ and NO_x emissions allowances as well as auctions and transfers of SO₂ emissions allowances.

Project Fiscal Expenditures:

2023 O&M is forecasted to be \$2k.

Project Progress Summary:

DEF continually evaluates the status of emission rules to maximize the cost effectiveness of its compliance strategy.

Project Projections:

2024 O&M expenditures are projected to be \$3k.

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Project Title: Phase II Cooling Water Intake
Project No. 6

Project Description:

Section 316(b) of the Federal Clean Water Act requires that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact. 33 U.S.C. Section 1326. On 5/19/14, the EPA Administrator signed a final 316(b) rule to protect fish and aquatic life drawn into cooling systems at power plant and factories. The rule aims to minimize impingement (aquatic life pinned against cooling water intake structures) and entrainment (aquatic life drawn into cooling water systems). The regulation became effective on October 14, 2014, 60 days after publication in the Federal Register which was 8/15/14.

EPA's regulation implementing §316(b) of the Clean Water Act for existing facilities was published on August 15, 2014. The regulation aims to minimize adverse environmental impacts to fish and other aquatic organisms from the operation of cooling water intake structures. The regulation became effective October 14, 2014, 60 days after publication in the Federal Register. The regulation primarily applies to existing power generating facilities that commenced construction prior to or on January 17, 2002 and to new units at existing facilities that are built to increase the generating capacity of the facility.

According to the current 316(b) rule, required studies and information submittals will be due with the renewal of the NPDES permit application for permits that expire after July 18, 2018. Permittees with a current NPDES permit that expires before July 18, 2018 may request the FDEP establish an alternative schedule for submitting the required information. This rule is applicable to Anclote, Bartow, Suwannee, and Crystal River North stations.

Project Accomplishments:

DEF is currently evaluating the 316(b) rule to determine potential study requirements, operating and cost impacts to its generating stations. Site specific strategic plans, studies, and implementation plans are under development to ensure compliance with all applicable requirements of the rule.

Project 6, 316(b) - Crystal River is in-service as of December 2022.

Project Fiscal Expenditures:

2023 O&M expenditures are estimated to be \$357k. 2023 Capital expenditures are estimated to be \$388k for Project 6.1 (Bartow Base).

Project Progress Summary:

Required 316(b) reports have been finalized and with the NPDES permit renewal applications to FDEP for review and approval. Anclote & Bartow are currently being evaluated.

Project Projections:

2024 estimated O&M expenditures are \$550k, and capital \$600k.

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Project Title: Integrated Clean Air Compliance Plan - Clean Air Interstate Rule (CAIR)
Project Nos. (7.2, 7.3 7.4 & 7.6)

Project Description:

The Clean Air Interstate Rule (CAIR), 40 CFR 24, 262, imposes significant restrictions on emissions of SO₂ and NO_x from power plants in 28 eastern states, including Florida and the District of Columbia. The CAIR rule apportions region-wide SO₂ and NO_x emission reduction requirements to the individual states, and further requires each affected state to revise its State Implementation Plans (SIPs) to include measures necessary to achieve its emission reduction budget within prescribed deadlines.

The Cross-State air pollution Rule (CSAPR) replaced CAIR on 1/1/15. Under the CSAPR, the State of Florida is no longer required to comply with annual emission requirements, only NO_x ozone seasonal limits. The CSAPR requirements took effect in Florida on 5/1/15, the beginning of the ozone season. NO_x emission allowances under CAIR have no value; however, DEF will continue to use its SO₂ emission allowances to comply with the Acid Rain Program. (see Project No. 5 - SO₂ and NO_x Emission Allowances Project Sheet for more information).

The Florida Department of Environmental Protection ("FDEP") Conditions of Certification, dated August 1, 2012, require DEF to evaluate an alternative disposal method of FGD Blowdown wastewater based on results of groundwater monitoring near percolation ponds. DEF is installing a physical/chemical treatment system to treat FGD Blowdown wastewater with discharge to surface water or percolation ponds.

In March of 2004, the 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 YYY, 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 August 2004, EPA stayed the effectiveness of the rule for the lean premix and diffusion flame gas-fired sub-categories of stationary combustion turbines. 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).

Project Accomplishments:

The FGD Wastewater treatment (WWT) system went in-service February 2019.

All projects except 7.4 CAIR/CAMR Crystal River - Energy (Reagents) have been moved to base rates as of January 2022, as approved in Order No. PSC-2021-0202-AS-EI.

Project Fiscal Expenditures:

For 2023, the CAIR/CAMR Crystal River Program (Project 7.4), O&M is forecasted be \$8M. Project 7.6 NESHAP O&M is forecasted to be \$61k.

Project Progress Summary:

DEF continues to comply with the CAIR, CSAPR and the Acid Rain Program.

Project Projections:

2024 estimated O&M expenditures are \$9.2M for Reagents, and \$40k O&M for NESHAP.

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Project Title: Best Available Retrofit Technology (BART)
Project No. 7.5

Project Description:

On 5/25/12, the EPA proposed a partial disapproval of Florida's proposed Regional Haze State Implementation Plan (SIP) because the proposed SIP relies on CAIR to satisfy BART requirements for SO₂ and NO_x emissions. CAIR remained in effect while litigation against the Cross State Air Pollution Rule (CSAPR) proceeded, and the EPA incorporated the CSAPR in place of CAIR into Regional Haze SIPs, including Florida. DEF worked with the FDEP to develop specific BART and Reasonable Progress permits for affected units that were incorporated into Florida's revised SIP submittal, which was filed with EPA on 9/17/12. The final BART permit applications for Crystal River fossil units were submitted to EPA on 10/15/12 as a supplement to the 9/17/12 submittal. Permitting was finalized in 2013 with an effective date of January 1, 2014.

Project Accomplishments:

DEF performed required emissions modeling and associated BART analysis for Crystal River 1&2 (CR1&2) and Anclote plants, developed and submitted a Reasonable Progress evaluation for Crystal River 4&5, developed and submitted necessary BART Implementation Plans and air construction permit applications in support of the FDEP's work to amend its SIP as directed by the EPA. Permitting actions were completed in 2013 with the effective date of the CR 1& 2 permit being January 1, 2014.

Project Fiscal Expenditures:

This project is complete, no further charges are expected.

Project Progress Summary:

DEF performed required emissions modeling and associated BART analysis for CR1&2 and Anclote, developed and submitted a Reasonable Progress evaluation for Crystal River 4&5, developed and submitted necessary BART Implementation Plans and air construction permit applications needed in support of the FDEP ongoing work to amend its State Implementation Plan as directed by the EPA. Based on the revised Regional Haze SIP incorporating the provisions of Crystal River's BART permits for SO₂ and NO_x, EPA on 12/10/12 proposed approval of the SIP. In August 2013, EPA finalized the full approval of the SIP. The Crystal River South BART permit became effective on January 1, 2014 and DEF is now operating under the terms of that permit.

Project Projections:

This project is complete, no further charges are expected.

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Project Title: Arsenic Groundwater Standard
Project No. 8

Project Description:

On 12/22/01, the EPA adopted a new maximum contaminant level (MCL) for arsenic in drinking water replacing the previous standard of 0.050 mg/L (50 ppb) with a new MCL of 0.010 mg/L (10 ppb). Effective 1/1/05, the FDEP established the USEPA MCL as Florida's drinking water standard. See Rule 62-550 F.A.C. The new standard has compliance implications for land application and water reuse projects in Florida with arsenic ground water monitoring levels above 10 ppb because the drinking water standard has been established as the groundwater standard by Rule 62-520-420(1), F.A.C.

Project Accomplishments:

A Plan of Study (POS) to evaluate the source of arsenic at the site was implemented on November 2011. A POS Addendum that included a leachability study and proposed abandoning one well and installing 3 new wells was implemented in February 2012. An additional Flue Gas Desulfurization (FGD) Wastewater Treatment Study was conducted in May 2013. The results of these studies indicated that Arsenic is naturally occurring in some areas but there is also a contribution from the FGD discharge from the lined treatment pond to the percolation ponds, and from the industrial wastewater from Crystal River Units 1 & 2. These sources are being addressed by the construction of a new FGD wastewater treatment system and retirement of Units 1 & 2, both scheduled to be completed by December 31, 2018.

Additional assessment was initiated in 2016 around the area of ground water wells still exceeding the Arsenic standard of 10 ppb with no clear source of Arsenic identified (MWC-1, MWC-31 and MWC-32). This additional assessment indicated that the source of Arsenic around MWC-31 is related to the former North Ash Pond that was located in that area. Based on that finding, the Consent Order was amended to address that area under 62-780, F.A.C. Remedial Actions, which included additional assessment and submittal of a final assessment report to FDEP in 2018. Results from MWC-1 assessment indicate that the well is not measuring impacts from the industrial wastewater activities at the site and DEF requested to FDEP that the well be replaced by one of the Plan of Study wells. FDEP requested the sampling of all the wells around MWC-1 for a year prior to approval of the change.

Project Fiscal Expenditures:

2023 O&M expenditures are expected to be \$90k.

Project Progress Summary:

Continuation of groundwater monitoring, analysis and reporting of results to FDEP.

Project Projections:

2024 O&M expenditures are forecasted to be \$40k.

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Project Title: Sea Turtle - Coastal Street Lighting
Project No. 9

Project Description:

DEF owns and leases high pressure sodium streetlights throughout its service territory, including areas along the Florida coast. Pursuant to Section 161.163, Florida Statutes, the FDEP, in collaboration with the Florida Fish and Wildlife Conservation Commission (FFWCC) and the U.S. Fish & Wildlife Service (USFWS), has developed a model Sea Turtle lighting ordinance. The model ordinance is used by the local governments to develop and implement ordinances within its jurisdiction. To date, Sea Turtle lighting ordinances have been adopted in Franklin County, Gulf County, City of Mexico Beach in Bay County and Pinellas County, all of which are within DEF's service territory. Since 2004, officials from the various local governments, as well as the FDEP, FFWC, and USFWS, have advised DEF that lighting it owns and leases is affecting turtle nesting areas that fall within the scope of these ordinances. As a result, local governments require DEF to take additional measures to satisfy new criteria being applied to ensure compliance with the sea turtle ordinances.

Project Accomplishments:

DEF continues to work with Franklin County, Gulf County, City of Mexico Beach in Bay County, and Pinellas County to mitigate any potential sea turtle nesting issues by retrofitting existing street lights, placing amber shields on existing HPS street lights and monitoring street lights for effectiveness in complying with sea turtle ordinances.

Project Fiscal Expenditures:

No further ECRC project expenditures are expected for this project.

Project Progress Summary:

DEF is on schedule with activities identified for this program.

This project was moved to base rates as of January 2022, as approved in Order No. PSC-2021-0202-AS-EI.

Project Projections:

No further ECRC project expenditures are expected for this project.

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Project Title: **Underground Storage Tanks**
Project No. 10

Project Description:

FDEP regulations require that underground pollutant storage tanks and small diameter piping be upgraded with secondary containment by 12/31/09. See Rule 62-761.510(5), F.A.C. DEF identified four tanks that must comply with this rule: two at Crystal River Plant and two at Bartow Plant.

Project Accomplishments:

Work on Crystal River and Bartow USTs was completed in 4th Qtr 2006.

Project Fiscal Expenditures:

No ECRC project expenditures are expected for this project.

Project Progress Summary:

DEF continually evaluates its compliance program, including project prioritization, schedule and technology applications.

This project was moved to base rates as of January 2022, as approved in Order No. PSC-2021-0202-AS-EI.

Project Projections:

No ECRC project expenditures are expected for this project.

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Project Title: **Modular Cooling Towers**
Project No. 11

Project Description:

This project involves installation and operation of modular cooling towers in the summer months to minimize de-rates of Crystal River 1&2 (CR1&2) necessary to comply with the NPDES permit limit for the temperature of cooling water discharged from the units.

Project Accomplishments:

Vendors of modular cooling towers were evaluated regarding cost of installation and operation. The FDEP reviewed the project and approved operation. A vendor was selected and the towers were installed during the 2nd Qtr 2006.

Project Fiscal Expenditures:

This project is complete, no further charges are expected.

Project Progress Summary:

The modular cooling towers began operation in June 2006 and successfully minimized de-rates of CR 1&2. The towers were removed during the first half of 2012. This project is complete.

Project Projections:

This project is complete, no further charges are expected.

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Project Title: Crystal River Thermal Discharge Compliance Project
Project No. 11.1

Project Description:

This project was to evaluate and implement the best long term solution to maintain compliance with the thermal discharge limit in the FDEP industrial wastewater permit for Crystal River Units 1,2&3 that was being addressed in the short term by the Modular Cooling Towers approved in Docket No. 20060162-EI. Due to DEF's decision to retire CR3, this project is no longer necessary and will not be implemented.

Project Accomplishments:

The study phase of the project was completed with a recommendation to replace the leased modular cooling towers in coordination with the cooling solution for the CR3 Extended Power Uprate (EPU) discharge canal cooling solution. The new cooling tower associated with the CR3 EPU was to be sized to mitigate both increased temperatures from the EPU as well as replace the modular cooling towers, which were removed in 2012. The design contract for the CR3 EPU cooling tower was awarded and a vendor selected. In February 2013, DEF decided to retire CR3; therefore, the project will not proceed.

Project Fiscal Expenditures:

This project is complete, no further charges are expected.

Project Progress Summary:

Crystal River Units 1,2&3 utilize a once-through cooling water process to cool and condense turbine exhaust steam back to water. The cooling water is removed from the Gulf of Mexico via an intake canal and discharged to a common discharge canal shared by all of the generating units. DEF has a NPDES industrial wastewater permit from the FDEP to discharge this cooling water from CR 1,2&3 into the Gulf of Mexico. The FDEP NPDES permit includes a limit on the temperature of the cooling water discharge (96.5 degrees Fahrenheit on a three-hour rolling average) measured at the point of discharge to the Gulf of Mexico. The new cooling towers were being added as a long term solution to the issue of higher ambient water temperatures previously being addressed by the modular cooling towers and added heat rejection due to the estimated 180MW Uprate of CR3. With the retirement of CR3, the heat rejection associated with the entire unit is removed and therefore the new cooling tower is not necessary for the continued operation of CR 1&2 within the NPDES permit limits.

Project Projections:

This project is complete, no further charges are expected.

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Project Title: Greenhouse Gas (GHG) Inventory and Reporting
Project No. 12

Project Description:

The GHG Inventory and Reporting Program was created in response to Chapter 2008-277, Florida Laws, which established the Florida Climate Protection Act to be codified at section 403.44, Florida Statutes. Among other things, this legislation authorizes the FDEP to establish a cap and trade program for GHG emissions from power plants. Utilities subject to the program, including DEF, will be required to use The Climate Registry for purposes of GHG emission registration and reporting. The requirement to report to The Climate Registry was repealed during the 2010 legislative session; however, the EPA GHG Reporting Rule (40 CFR 98) does require DEF to submit 2010 GHG data to the EPA no later than 9/30/2011.

Project Accomplishments:

In 2009, DEF joined The Climate Registry and submitted 2008 GHG inventory data. 2009 data was submitted during the third quarter of 2010. Both 2008 and 2009 data was validated by a third party as required by The Climate Registry. 2010 GHG inventory data was submitted to EPA on 9/30/11 and EPA does not require data validation by a third party. DEF has discontinued its membership with The Climate Registry. Since third party validation is not required by the EPA, no future expenditures will be incurred by DEF, resulting in the completion of this project.

Project Fiscal Expenditures:

This project is complete, no further charges are expected.

Project Progress Summary:

DEF submits GHG inventory data directly to EPA which does not require third party validation. Membership with The Climate Registry has been discontinued.

Project Projections:

This project is complete, no further charges are expected.

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Project Title: Mercury Total Daily Maximum Loads Monitoring (TMDL)
Project No. 13

Project Description:

Section 303(d) of the Federal Clean Water Act requires each state to identify state waters not meeting water quality standards and establish a TMDL for the pollutant or pollutants causing the failure to meet standards. Under a 1999 federal consent decree, TMDLs for over 100 Florida water bodies listed as impaired for mercury must be established by 9/12/12. The FDEP has initiated a research program to provide necessary information for setting appropriate TMDLs for mercury. Among other things, the study will assess the relative contributions of mercury-emitting sources, such as coal-fired power plants, to mercury levels in surface waters.

Project Accomplishments:

Atmospheric & Environmental Research, Inc (AER) completed the literature review on mercury deposition in Florida. This document was sent to the FDEP Division of Air Resource Management and the TMDL team for review in February 2009. In addition, the Florida Electric Power Coordinating Group (FCG) Mercury Task Force met with FDEP Division of Air Resource Management to discuss the review in January 2010. AER performed Florida mercury deposition modeling for the Division of Air Resource Management. The FCG Mercury Task Force contracted with Tetra Tech to conduct aquatic field sampling, including an aquatics modeling report, to develop a "Conceptual Model for the Florida Mercury TMDL." This document was finalized and submitted to the FDEP in December 2010. Key personnel from AER were employed by Environ in 2011 and FCG established a contract with Environ to ensure continuity of the project. FCG used Environ and Tetra Tech to review and critique FDEP's aquatic cycling and atmospheric modeling analyses. The FDEP developed a mercury TMDL report in the spring and summer of 2012, and it proposed a TMDL in September 2012. The EPA approved Florida's statewide mercury TMDL in a letter dated October 18, 2013. Florida's mercury TMDL covers 441 waters listed as impaired for mercury based on fish tissue mercury levels. EPA's approval letter states that if FDEP identifies any new waters to be listed as impaired for mercury, a new TMDL will not be required if the listing is caused by the factors addressed in the approved TMDL. Conversely, a new TMDL, addressing the newly listed water body, would be required if "local emission or effluent sources" are determined to be the cause of the elevated fish tissue levels that required the new listing.

Project Fiscal Expenditures:

This project is complete, no further charges are expected.

Project Progress Summary:

The mercury TMDL study concluded in 2012.

Project Projections:

This project is complete, no further charges are expected.

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Project Title: Hazardous Air Pollutants (HAPs) ICR Program
Project No. 14

Project Description:

In 2009, the EPA initiated efforts to develop an Information Collection Request (ICR), which requires that owners/operators of all coal- and oil-fired electric utility steam generating units provide information that will allow the EPA to assess emissions of hazardous air pollutants from each such unit. The intention of the ICR is to assist the Administrator of the EPA in developing national emission standards for hazardous air pollutants under Section 112(d) of the Clean Air Act, 42 U.S.C. 7412. Pursuant to those efforts, by letter dated 12/24/09, the EPA formally requested DEF comply with certain data collection and emissions testing requirements for several of its steam electric generating units. The EPA letter states that initial submittal of existing information must be made within 90 days, and that the remaining data must be submitted within 8 months. Collection and submittal of the requested information is mandatory under Section 114 of the Clean Air Act, 42 U.S.C. 7414.

Project Accomplishments:

DEF completed and submitted the ICR to EPA during 2010. The HAPS ICR project is complete.

Project Fiscal Expenditures:

This project is complete, no further charges are expected.

Project Progress Summary:

DEF completed and submitted the ICR to EPA during 2010.

Project Projections:

This project is complete, no further charges are expected.

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Project Title: Effluent Limitation Guidelines ICR Program
Project No. 15

Project Description:

The Effluent Limitation Guidelines ICR Program was created in response to Section 304 of the Federal Clean Water Act which directs the EPA to develop and periodically review regulations, called effluent guidelines, to limit the amount of pollutants that are discharged to surface waters from various point source categories. 33 U.S.C. §13 14(b). In October 2009, the EPA announced that it intended to update the effluent guidelines for the steam electric power generating point source category, which were last updated in 1982. DEF is required to complete the ICR and submit responses to the EPA within 90 days. Collection and submittal of the requested information is mandatory under Section 308 of the Clean Water Act.

Project Accomplishments:

DEF completed and submitted the ICR to the EPA in September 2010. The Effluent Limitation Guidelines ICR Program is complete.

Project Fiscal Expenditures:

This project is complete, no further charges are expected.

Project Progress Summary:

DEF completed and submitted the ICR to EPA in September 2010.

Project Projections:

This project is complete, no further charges are expected.

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Project Title: Effluent Limitation Guidelines CRN Program
Project No. 15.1

Project Description:

On September 30th, 2015, U.S. Environmental Protection Agency finalized the Steam Electric Power Generating Effluent Guidelines, 40 CFR Part 423, imposing federal standards on several power plant streams that are discharged to surface water. In the final regulation, closed-loop systems or dry handling have been identified as the Best Available Technology ("BAT") for bottom ash transport water. Crystal River North Units 4 & 5 have a dry bottom ash system that utilizes dewatering bins for separation of bottom ash and water. However, the current configuration has the potential for bottom ash transport water to leave via overflows and drain into an NPDES internal outfall. Achieving the closed loop bottom ash compliance requirement is as soon as possible beginning November 1, 2018 but no later than December 31, 2023. Renewal of the Crystal River Units 4 & 5 NPDES permit is in progress and addresses this requirement.

Project Accomplishments:

DEF Initiated the first phase of ELG compliance activities necessary to comply with NPDES permit renewal. The remaining project scope is still on hold pending EPA Administrative Stay final decision.

Project Fiscal Expenditures:

There are no 2023 estimated expenditures for this project.

Project Progress Summary:

This project was placed in-service June 2020.

Project Projections:

No capital or O&M expenditures are forecasted for 2024.

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Project Title: National Pollutant Discharge Elimination System (NPDES)
Project No. 16

Project Description:

Pursuant to the Federal Clean Water Act, 33 U.S.C. § 1342, all point source discharges to navigable waters from industrial facilities must obtain permits under the NPDES Program. The FDEP administers the NPDES program in Florida. DEF's Anclote, Bartow, and Crystal River North, Crystal River South, and Suwannee NPDES permits were issued on 11/25/2015, 1/5/2016, 7/18/11, 4/7/2014, and 10/6/2016, respectively. Crystal River North NPDES permit is in the renewal process. All facilities are required to meet new permitting conditions. In Docket No. 20110007-EI, the Commission approved recovery of costs associated with new requirements included or expected to be included in the new renewal permits, including: thermal studies, aquatic organism return studies and implementation, whole effluent toxicity (WET) testing, dissolved oxygen (DO) studies (Bartow only), and freeboard limitation related studies (Bartow only). As noted in DEF's 2/8/12 program update, on 12/14/11, the FDEP issued a final NPDES renewal permit and associated Administrative Order (AO) for the Suwannee Plant. The AO includes a new requirement to assess copper discharges that DEF did not anticipate when it filed its petition in 2011.

Project Accomplishments:

DEF continues to perform whole effluent toxicity testing, implementing initial 316(b) rule requirements based on NPDES permit schedules at affected facilities which includes literature review and analysis, additional field study, and reporting requirements in accordance to NPDES permit requirements. Bartow freeboard limitation study was completed in May 2011 and submitted to FDEP on 6/23/11. The FDEP approved DEF's corrective action plan and Bartow is in compliance with Administrative Order as of December 2014. The copper discharge study at the Suwannee plant has been completed and a final report was submitted to the FDEP in June 2014 resulting in a corrective action of retiring the steam units. The Suwannee plant retired Units 1, 2 and 3 in December 2016.

Project Fiscal Expenditures:

2023 O&M expenditures are estimated to be \$46k. No new capital expenditures are forecasted for 2023.

Project Progress Summary:

DEF has begun complying with the requirements of the NPDES permits. Aquatic organism return study requirements have been postponed to align with the final EPA 316(b) rule requirements (Bartow/Anclote Plants) which was published 8/15/14. The aquatic organism return requirement is not a requirement in the Crystal River North NPDES permit. The dissolved oxygen study of cooling water intake and discharge at the Bartow plant was completed and the results of the study demonstrated there is no negative impact on DO due to the plant's operation. The final DO report was submitted to the FDEP on November 20, 2012, and the Department has not required any additional action. The Suwannee Steam station was retired and removed from service; therefore, WET testing is no longer required.

Project Projections:

2024 estimated O&M expenditures are \$36k. No capital expenditures are expected in 2024.

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Project Title: Mercury & Air Toxic Standards (MATS) CR4 & CR5
Project No. 17

Project Description:

The Commission approved ECRC recovery of DEF's costs for compliance with new hazardous air pollutant standards at Crystal River Units 4 & 5 (CR4&5) in Order No. PSC-2011-0553-FOF-EI. The final MATS rule was issued by the EPA on 12/21/11. The FDEP granted a limited, one-year extension for the mercury-related requirements on 3/12/15. DEF will utilize the co-benefits of existing FGD and SCR systems as the primary MATS emission controls. CR4&5 have demonstrated compliance with all MATS requirements as of 4/16/16.

Project Accomplishments:

DEF installed oxidation-reduction potential (ORP) probes and mercury re-emission control systems for MATS emissions control. In addition, continuous emissions monitoring systems (CEMS) were installed for compliance demonstration with particulate matter (PM) and mercury emissions. Appendix K sorbent traps have been certified and maintained to serve as backup monitors for mercury CEMS.

Project Fiscal Expenditures:

2023 O&M expenditures are estimated to be \$195K.

Project Progress Summary:

Initial implementation of the CR4&5 MATS compliance plan is complete.

Project Projections:

2024 estimated O&M is \$200k. No capital expenditures are forecasted.

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Project Title: Mercury & Air Toxic Standards (MATS) Anclote Gas Conversion
Project No. 17.1

Project Description:

Convert existing Anclote Units to use 100% natural gas to be in compliance with MATS as approved by the Commission in Order No. PSC-2012-0432-PAA-EI.

Project Accomplishments:

Unit 1 and Unit 2 gas conversions were completed 7/13/13 and 12/2/13, respectively. Unit 1 and Unit 2 Forced Draft (FD) fan modification work was completed 5/22/14 and 11/17/14, respectively.

Project Fiscal Expenditures:

No further ECRC expenditures are forecasted for this project.

Project Progress Summary:

This project is in-service.

This project was moved to base rates as of January 2022 per Order No. PSC-2021-0202-AS-EI.

Project Projections:

No further ECRC expenditures are forecasted for this project.

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Project Title: Mercury & Air Toxic Standards (MATS) CR1 & CR2
Project No. 17.2

Project Description:

DEF implemented its CR1&2 MATS Compliance Plan as approved by the Commission in Order No. PSC-2014-0173-PAA-EI. CR1&2 have demonstrated compliance with all MATS requirements as of 4/16/2016.

Project Accomplishments:

DEF finalized its CR1&2 MATS Compliance Plan in December 2013 and began implementation in early 2014. Modifications were made to the electrostatic precipitators (ESPs) to improve particulate collection efficiency, and reagent injection systems were installed to reduce hydrogen chloride (HCl) and mercury emissions. Appendix K sorbent traps were installed for compliance demonstration with mercury emissions.

Project Fiscal Expenditures:

No further Capital or O&M expenses are forecasted.

Project Progress Summary:

CR1&2 have been retired as of December 2020.

Project Projections:

No further Capital or O&M expenses are forecasted.

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Project Title: Coal Combustion Residual (CCR) Rule
Project No. 18

Project Description:

The Coal Combustion Residual (CCR) Rule was published in the Federal Register on 4/17/15 and became effective 10/19/15. This rule regulates the disposal of CCR as non-hazardous solid waste, and contains new requirements for CCR landfills and CCR surface impoundments. It also specifies implementation guidelines for compliance. The CCR compliance deadlines vary, with compliance obligations that were required as early as 10/19/15. The rule has specific impacts on the ash landfill and temporary gypsum pad at the Crystal River North site. The Flue Gas Desulfurization (FGD) blowdown ponds were removed in 2020 and no longer subject to the rule requirements. No other DEF operating facilities are impacted by the CCR rule.

A Florida Department of Environmental Protection (FDEP) regulation (Rules 62-701.804 and 62-701-805 of the Florida Administrative Code) to adopt the federal CCR Rule became effective 3/11/22 and required Coal Combustion Residual landfills in Florida such as the ash landfill at Crystal River North to submit an operation permit application.

Project Accomplishments:

DEF has remained in compliance with the federal CCR rule requirements, including but not limited to inspections, groundwater quality monitoring, groundwater corrective actions, and engineering reviews of stormwater management controls, ground stability, and fugitive dust controls.

Project Fiscal Expenditures:

2023 estimated O&M expenditures are \$425k. No capital expenditures are forecasted.

Project Progress Summary:

Maintenance, vegetation management, fugitive dust control, and weekly inspections for the Ash Landfill and Temporary Gypsum Pad continue. More frequent mowing and inspection work continues to be performed to comply with the CCR Rule. Annual inspection and semi-annual engineering reviews were completed for the Ash Landfill and its stormwater management ponds and ditches.

The groundwater assessment project for the Ash Landfill continued per the requirements of the rule. Required tasks included sample collection and analysis, data validation, statistical analysis, and reporting. The lined basin / ditch area project was completed and placed in service in 2021. O&M work to remove accumulated CCR material from the lined basin / ditch area is ongoing

Project Projections:

2024 estimated O&M expenditures are \$521k. No capital expenditures are forecasted.

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Project Title: Reclaimed Water Interconnection
Project No. 19

Project Description:

DEF's DeBary Station is governed by the Saint Johns River Water Management District ("SJRWMD") Consumptive Use Permit ("CUP") and Section 373.250 Florida Statute. DEF must comply with the District's CUP, which requires DEF to use the lowest quality of water possible. To comply with the CUP, DEF will be required to design and construct a new Reverse Osmosis ("RO") system along with associated pumps and piping to pre-treat the reclaimed water. Full project scope and design is expected to start mid-2024, and equipment procurement, construction and testing expected to occur in 2025. The estimated in-service date of this project is fourth quarter 2025.

Project Accomplishments:

Project Fiscal Expenditures:

No forecasted O&M or Capital for 2023.

Project Progress Summary:

Notified Commission of new project on June 30, 2023.

Project Projections:

Forecasted 2024 Capital is \$260k.

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Project Title: **Lead and Copper Rule**
Project No. 20

Project Description:

The EPA Lead and Copper Rule 40 CFR 141 Subpart I Revisions (“LCRR”) was published in the national register January 15, 2021 and has an effective date of March 16, 2021. The State of Florida adopted Federal requirements for lead and copper regulation in potable water systems under section 62-550.800, F.A.C. Included with the revision is a requirement for all community and non-transient non-community (“NTNC”) water systems to conduct an initial lead service line (“LSL”) inventory and submit the results to the regulatory agency by October 16, 2024. DEF sites subject to this requirement are Citrus Combined Cycle, Crystal River, and Hines. The EPA intends to amend the LCRR with the promulgation of the Lead and Copper Rule Improvements (“LCRI”) before Oct. 16, 2024. The EPA’s intent is to keep the LCRR requirements for initial LSL inventories even after the LCRR is amended by the LCRI, including the compliance date of Oct. 16, 2024, for completion of the initial LSL inventories.

Project Accomplishments:

Project Fiscal Expenditures:

No forecasted O&M or Capital for 2023.

Project Progress Summary:

Notified Commission of new project on June 30, 2023.

Project Projections:

Forecasted 2024 O&M is \$30k.

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Calculation of the Energy & Demand Allocation % by Rate Class
January 2024 - December 2024

Form 42-6P

Docket No. 20230007-EI
 Duke Energy Florida, LLC
 Witness: G. P. Dean
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Rate Class	(1) Average 12CP Load Factor at Meter (%)	(2) Sales at Meter (mWh)	(3) Avg 12 CP at Meter (MW) (2)/(8784hrs*(1))	(4) NCP Class Max Load Factor	(5) Delivery Efficiency Factor	(6) Sales at Source (Generation) (mWh) (2)/(5)	(7) Avg 12 CP at Source (MW) (3)/(5)	7(a) Sales at Source (Distrib Svc Only) (mWh)	(8) Class Max MW at Source Level (Distrib Svc) (7a)/(8784hrs/(4))	(9) mWh Sales at Source Energy Allocator (%)	(10) 12CP Demand Transmission Allocator (%)	(11) NCP Distribution Allocator (%)	(12) 12CP & 25% AD Demand Allocator (%)
Residential													
RS-1, RST-1, RSL-1, RSL-2													
Secondary	0.534	20,955,189	4,465.39	0.423	0.9500866	22,056,083	4,699.98	22,056,083	5,929.1	53.068%	62.942%	64.231%	60.474%
General Service Non-Demand													
GS-1, GST-1													
Secondary	0.651	2,158,371	377.25	0.483	0.9500866	2,271,762	397.07	2,271,762	535.8	5.466%	5.318%	5.805%	5.355%
Primary	0.651	26,874	4.70	0.483	0.9752373	27,557	4.82	27,557	6.5	0.066%	0.065%	0.070%	0.065%
Sec Del/Primary Mtr	0.651	0	0.00	0.483	0.9752373	0	0.00	0	0.0	0.000%	0.000%	0.000%	0.000%
Transmission	0.651	3,183	0.56	0.483	0.9852373	3,231	0.56	0	0.0	0.008%	0.008%	0.000%	0.008%
										5.540%	5.390%	5.875%	5.427%
General Service													
GS-2 Secondary	1.000	208,022	23.68	1.000	0.9500866	218,950	24.93	218,950	24.9	0.527%	0.334%	0.270%	0.382%
General Service Demand													
GSD-1, GSDT-1													
Secondary	0.777	10,868,384	1,592.48	0.634	0.9500866	11,439,361	1,676.15	11,439,361	2,055.1	27.524%	22.447%	22.263%	23.716%
Primary	0.777	1,745,199	255.71	0.634	0.9752373	1,789,512	262.21	1,789,512	321.5	4.306%	3.511%	3.483%	3.710%
Secondary Del/ Primary Mtr	0.777	0	0.00	0.634	0.9752373	0	0.00	0	0.0	0.000%	0.000%	0.000%	0.000%
Primary Del/Secondary Mtr	0.777	4,243	0.62	0.634	0.9500866	4,466	0.65	4,466	0.8	0.011%	0.009%	0.009%	0.009%
Transm Del/ Primary Mtr	0.777	0	0.00	0.634	0.9752373	0	0.00	0	0.0	0.000%	0.000%	0.000%	0.000%
Transmission	0.777	480,935	70.47	0.634	0.9852373	488,142	71.52	0	0.0	1.175%	0.958%	0.000%	1.012%
SS-1 Primary	0.985	55,818	6.45	0.345	0.9752373	57,235	6.61	57,235	18.9	0.138%	0.089%	0.205%	0.101%
Transm Del/ Transm Mtr	0.985	5,650	0.65	0.345	0.9852373	5,735	0.66	0	0.0	0.014%	0.009%	0.000%	0.010%
Transm Del/ Primary Mtr	0.985	2,870	0.33	0.345	0.9752373	2,943	0.34	0	0.0	0.007%	0.005%	0.000%	0.005%
										33.173%	27.027%	25.959%	28.564%
Curtable													
CS-2, CST-2, CS-3, CST-3													
Secondary	1.002	(0)	(0.00)	0.778	0.9500866	(0)	(0.00)	(0)	(0.0)	0.000%	0.000%	0.000%	0.000%
Primary	1.002	65,512	7.45	0.778	0.9752373	67,176	7.64	67,176	9.8	0.162%	0.102%	0.107%	0.117%
SS-3 Primary	1.207	139,893	13.20	0.576	0.9752373	143,445	13.53	143,445	28.3	0.345%	0.181%	0.307%	0.222%
										0.507%	0.283%	0.414%	0.339%
Interruptible													
IS-2, IST-2													
Secondary	1.012	366,440	41.21	0.740	0.9500866	385,691	43.38	385,691	59.3	0.928%	0.581%	0.643%	0.668%
Sec Del/Primary Mtr	1.012	-	0.00	0.740	0.9752373	0	0.00	0	0.0	0.000%	0.000%	0.000%	0.000%
Primary Del / Primary Mtr	1.012	969,647	109.05	0.740	0.9752373	994,268	111.82	994,268	152.9	2.392%	1.498%	1.656%	1.721%
Primary Del / Transm Mtr	1.012	-	0.00	0.740	0.9852373	0	0.00	0	0.0	0.000%	0.000%	0.000%	0.000%
Transm Del/ Transm Mtr	1.012	960,084	107.98	0.740	0.9852373	974,470	109.60	0	0.0	2.345%	1.468%	0.000%	1.687%
Transm Del/ Primary Mtr	1.012	220,214	24.77	0.740	0.9752373	225,806	25.40	0	0.0	0.543%	0.340%	0.000%	0.391%
SS-2 Primary	0.838	9,645	1.31	0.237	0.9752373	9,889	1.34	9,889	4.7	0.024%	0.018%	0.051%	0.019%
Transm Del/ Transm Mtr	0.838	2,255	0.31	0.237	0.9852373	2,289	0.31	0	0.0	0.006%	0.004%	0.000%	0.005%
Transm Del/ Primary Mtr	0.838	42,586	5.79	0.237	0.9752373	43,668	5.94	0	0.0	0.105%	0.079%	0.000%	0.086%
										6.343%	3.988%	2.350%	4.577%
Lighting													
LS-1 (Secondary)	14.969	332,423	2.53	0.479	0.9500866	349,887	2.66	349,887	83.2	0.842%	0.036%	0.901%	0.237%
		39,623,435	7,111.88			41,561,563	7,467.12	39,815,282	9,231.0	100.000%	100.000%	100.000%	100.000%

Notes:

(1)	Average 12CP load factor based on load research study filed April 28, 2023	(7)	Column 3 / Column 5
(2)	Projected kWh sales for the period January 2024 to December 2024	(7a)	Column 6 excluding transmission service
(3)	Calculated: Column 2 / (8,784 hours x Column 1)	(8)	Calculated: Column 7a / (8,784 hours/ Column 4)
(4)	NCP load factor based on load research study filed April 28, 2023	(9)	Column 6/ Total Column 6
(5)	Based on system average line loss analysis for 2022	(10)	Column 7/ Total Column 7
(6)	Column 2 / Column 5	(11)	Column 8/ Total Column 8
		(12)	(Column 9 x .25) + (Column 10 x .75)

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Calculation of Environmental Cost Recovery Clause Rate Factors by Rate Class
January 2024 - December 2024

Form 42-7P

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Duke Energy Florida, LLC
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Rate Class	(1) mWh Sales at Source Energy Allocator (%)	(2) 12CP Transmission Demand Allocator (%)	(3) NCP Distribution Allocator (%)	(4) 12CP & 25% AD Demand Allocator (%)	(5) Energy- Related Costs (\$)	(6) Transmission Demand Costs (\$)	(7) Distribution Demand Costs (\$)	(8) Production Demand Costs (\$)	(9) Total Environmental Costs (\$)	(10) Projected Effective Sales at Meter Level (mWh)	(11) Environmental Cost Recovery Factors (cents/kWh)
Residential											
RS-1, RST-1, RSL-1, RSL-2											
Secondary	53.068%	62.942%	64.231%	60.474%	\$7,273,764	\$0	\$0	\$2,334,965	\$9,608,729	20,955,189	0.046
General Service Non-Demand											
GS-1, GST-1											
Secondary										2,158,371	0.044
Primary										26,606	0.044
Transmission										3,119	0.043
TOTAL GS	5.540%	5.390%	5.875%	5.427%	\$759,346	\$0	\$0	\$209,551	\$968,897	2,188,096	
General Service											
GS-2 Secondary	0.527%	0.334%	0.270%	0.382%	\$72,207	\$0	\$0.00	\$14,751.79	\$86,958	208,022	0.042
General Service Demand											
GSD-1, GSDT-1, SS-1											
Secondary										10,872,627	0.043
Primary										1,785,848	0.043
Transmission										476,853	0.042
TOTAL GSD	33.173%	27.027%	25.959%	28.564%	\$4,546,875	\$0	\$0	\$1,102,877	\$5,649,751	13,135,328	
Curtable											
CS-2, CST-2, CS-3, CST-3, SS-3											
Secondary										(0)	0.041
Primary										203,351	0.041
Transmission										-	0.040
TOTAL CS	0.507%	0.283%	0.414%	0.339%	\$69,459	\$0	\$0	\$13,101	\$82,561	203,351	
Interruptible											
IS-2, IST-2, SS-2											
Secondary										366,440	0.041
Primary										1,229,671	0.041
Transmission										943,092	0.040
TOTAL IS	6.343%	3.988%	2.350%	4.577%	\$869,339	\$0	\$0	\$176,708	\$1,046,047	2,539,203	
Lighting											
LS-1 Secondary	0.842%	0.036%	0.901%	0.237%	\$115,387	\$0	\$0.00	\$9,158.17	\$124,546	332,423	0.037
	100.000%	100.000%	100.000%	100.000%	\$13,706,378	\$0	\$0	\$3,861,111	\$17,567,489	39,561,611	0.044

- Notes:
- (1) From Form 42-6P, Column 9
 - (2) From Form 42-6P, Column 10
 - (3) From Form 42-6P, Column 11
 - (4) From Form 42-6P, Column 12
 - (5) Column 1 x Total Energy Jurisdictional Dollars from Form 42-1P, line 5
 - (6) Column 2 x Total Transmission Demand Jurisdictional Dollars from Form 42-1P, line 5
 - (7) Column 3 x Total Distribution Demand Jurisdictional Dollars from Form 42-1P, line 5
 - (8) Column 4 x Total Production Demand Jurisdictional Dollars from Form 42-1P, line 5
 - (9) Column 5 + Column 6 + Column 7 + Column 8
 - (10) Projected kWh sales at secondary voltage level for the period January 2024 to December 2024
 - (11) (Column 9 / Column 10)/10

DUKE ENERGY FLORIDA, LLC
Environmental Cost Recovery Clause
Calculation of Projected Period Amount
January 2024 - December 2024

Form 42 8P

Docket No. 20230007-EI
Duke Energy Florida, LLC
Witness: G. P. Dean
Exh. No. __ (GPD-3)
Page 42 of 42

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	\$ 8,671,796	45.42%	10.10%	4.590%	6.15%	0.5125%
2 Long Term Debt	7,378,491	38.64%	4.43%	1.710%	1.71%	0.1425%
3 Short Term Debt	299,791	1.57%	4.19%	0.070%	0.07%	0.0058%
4 Cust Dep Active	154,823	0.81%	2.50%	0.020%	0.02%	0.0017%
5 Cust Dep Inactive	1,488	0.01%			0.00%	0.0000%
6 Invest Tax Cr	193,483	1.01%	7.46%	0.080%	0.10%	0.0083%
7 Deferred Inc Tax	2,394,306	12.54%			0.00%	0.0000%
8 Total	\$ 19,094,178	100.00%		6.47%	8.05%	0.6708%

	ITC split between Debt and Equity**:	Ratio	Cost Rate	Ratio	Ratio	Deferred Inc Tax	Weighted ITC	After Gross-up
9 Common Equity	8,671,796	54%	10.10%	5.46%	72.8%	0.08%	0.058%	0.078%
10 Preferred Equity	-	0%				0.08%	0.000%	0.000%
11 Long Term Debt	7,378,491	46%	4.43%	2.04%	27.2%	0.08%	0.022%	0.022%
12 ITC Cost Rate	16,050,287	100%		7.49%			0.080%	0.100%

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

13	Total Equity Component (Lines 1 and 9)	6.228%	Total Pre-Tax Equity
14	Total Debt Component (Lines 2, 3, 4, and 11)	1.822%	Total Debt
15	Total Revenue Requirement Rate of Return	8.050%	WACC

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

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

PATRICIA Q. WEST

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20230007-EI

August 25, 2023

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

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

4

5 **Q. Have you previously filed testimony before this Commission in Docket No.**
6 **20230007-EI?**

7 A. Yes. I provided direct testimony on July 28, 2023.

8

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

11 A. No.

12

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

14 A. The purpose of my testimony is to provide estimates of the costs that will be
15 incurred in 2024 for Duke Energy Florida, LLC's ("DEF" or "Company")
16 Substation Environmental Investigation, Remediation and Pollution Prevention

1 Program (Projects 1 & 1a), Distribution Environmental Investigation,
2 Remediation and Pollution Prevention Program (Project 2), Pipeline Integrity
3 Management (“PIM”) Program (Project 3), Above Ground Storage Tanks
4 (“AST”) Program (Project 4), Phase II Cooling Water Intake 316(b) Program
5 (Project 6), CAIR/CAMR Continuous Mercury Monitoring System (“CMMS”) Program
6 (Projects 7.2 & 7.3), Best Available Retrofit Technology (“BART”) Program
7 (Project 7.5), National Emission Standards for Hazardous Air Pollutants
8 (NESHAP – Base (Project 7.6), Arsenic Groundwater Standard Program (Project
9 8), Sea Turtle – Coastal Street Lighting Program (Project 9), Underground Storage
10 Tanks (“UST”) Program (Project 10), Modular Cooling Towers (Project 11),
11 Thermal Discharge Permanent Compliance (Project 11.1), Greenhouse Gas
12 Inventory and Reporting (Project 12), Mercury Total Maximum Loads
13 Monitoring (“TMDL”) (Project 13), Hazardous Air Pollutants (“HAPs”) Information
14 Collection Request (“ICR”) (Project 14), Effluent Limitation Guidelines CRN
15 (Project 15.1), National Pollutant Discharge Elimination System (“NPDES”) Program
16 (Project 16), Reclaimed Water Interconnection (Project 19), and Lead and Copper Rule
17 (Project 20).

18

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

21 **A.** Yes. I am co-sponsoring the following portions of Exhibit No. __ (GPD-3) to Gary
22 P. Dean’s direct testimony:

- 23 • 42-5P page 1 of 25 – Substation Environmental Investigation,
24 Remediation and Pollution Prevention Program

- 1 • 42-5P page 2 of 25 - Distribution System Environmental Investigation,
- 2 Remediation and Pollution Prevention Program
- 3 • 42-5P page 3 of 25 – PIM
- 4 • 42-5P page 4 of 25 - AST
- 5 • 42-5P page 6 of 25 - Phase II Cooling Water Intake
- 6 • 42-5P page 7 of 25 – Clean Air Interstate Rule (“CAIR”)
- 7 • 42-5P page 8 of 25 – BART
- 8 • 42-5P page 9 of 25 - Arsenic Groundwater Standard
- 9 • 42-5P page 10 of 25 – Sea Turtle – Coastal Street Lighting Program
- 10 • 42-5P page 11 of 25 - UST
- 11 • 42-5P page 12 of 25 - Modular Cooling Towers
- 12 • 42-5P page 13 of 25 - Thermal Discharge Permanent Cooling Tower
- 13 • 42-5P page 14 of 25 - Greenhouse Gas Inventory and Reporting
- 14 • 42-5P page 15 of 25 - Mercury TMDL
- 15 • 42-5P page 16 of 25 - HAPs ICR
- 16 • 42-5P page 17 of 25 - Effluent Limitation Guidelines ICR Program
- 17 • 42-5P page 18 of 25 - Effluent Limitation Guidelines CRN Program
- 18 • 42-5P page 19 of 25 – NPDES
- 19 • 42-5P Page 24 of 25 – Reclaimed Water Interconnection
- 20 • 42-5P Page 25 of 25 – Lead and Copper Rule

21

22 **Q. What O&M costs does DEF expect to incur in 2024 for the Phase II Cooling**
23 **Water Intake 316(b) Program (Projects 6 and 6a)?**

1 A. DEF is forecasting a total of \$550k in O&M costs for the Phase II Cooling Water
2 Intake Program 316(b) projects in 2024.

3 DEF estimates approximately \$272k of O&M for Crystal River North, Project 6
4 - Base, for the routine inspection and cleaning of the 316(b) compliant screens.

5 DEF estimates approximately \$278k of O&M costs for the Anclote Station,
6 Project 6a – Intermediate, for the development and implementation of the
7 impingement mortality study plan.

8

9 **Q. What Capital costs does DEF expect to incur in 2024 for the Phase II Cooling
10 Water Intake 316(b) Program for Bartow CC station (Project 6.1)?**

11 A. DEF estimates approximately \$600k of capital costs in 2024 for Bartow station
12 316(b) (Project 6.1).

13 These costs are for the preliminary engineering and design of modified traveling
14 screens and an organism return system.

15

16 **Q. What costs does DEF expect to incur in 2024 for the National Emission
17 Standards for Hazardous Air Pollutants (“NESHAP”) – Base (Project 7.6)?**

18 A. DEF is forecasting \$40k in O&M costs for the NESHAP project in 2024 for
19 annual compliance testing at Citrus Combined Cycle Station (“CCC”). DEF is
20 required to conduct annual compliance tests to demonstrate continued compliance
21 with the formaldehyde limit.

22

23 **Q. What costs does DEF expect to incur in 2024 for the Arsenic Groundwater
24 Standard Program (Project 8)?**

1 A. DEF forecasts 2024 O&M expenditures to be \$40k. Anticipated costs are
2 associated with maintenance of the soils cap (engineering control) installed in the
3 former north ash pond, institutional controls checklist and draft declaration of
4 restrictive covenant followed by the final declaration of restrictive covenant.

5
6 **Q. What costs does DEF expect to incur in 2024 for the NPDES Program
7 (Project No. 16)?**

8 A. DEF estimates \$36k of O&M costs for Whole Effluent Toxicity (“WET”) testing
9 as required at DEF stations with NPDES permits.

10
11 **Q. What costs does DEF expect to incur in 2024 for the Reclaimed Water
12 Interconnection Program (Project No. 19)?**

13 A. DEF estimates \$260k of Capital costs for the preliminary engineering and design
14 of the new treatment system and piping appurtenance.

15
16 **Q. What costs does DEF expect to incur in 2024 for the Lead and Copper Rule
17 (Project No. 20)?**

18 A. DEF estimates \$30k of O&M costs to conduct the lead service line inventory and
19 prepare the inspection report for agency submittal.

20
21 **Q. Please provide an update on the Reclaimed Water Interconnection Program
22 (Project No. 19).**

1 A. DEF is currently obtaining engineering quotes to design the new treatment
2 system. The final contract is expected to be issued later this year after the reviews
3 are complete.

4

5 **Q: Do DEF's expected Reclaimed Water Interconnection Program (Project No.**
6 **19) compliance activity costs meet the recovery criteria established by Order**
7 **No. 94-0044-FOF-EI?**

8 A: Yes. The proposed Water Interconnection Program meets the recovery for ECRC
9 cost recovery established by Order No. PEC-94-0044-FOF-EI in that:

- 10 a) All expenditures will be prudently incurred after April 13, 1993;
11 b) The activities are legally required to comply with a governmentally imposed
12 environmental regulation enacted, became effective, or whose effect was
13 triggered after the Company's last test year upon which rates are based; and
14 c) The expenditures are not being recovered through some other cost recovery
15 mechanism or through base rates.

16

17 **Q. Please provide an update on the Lead and Copper Rule Program (Project**
18 **No. 20)?**

19 A. DEF will be obtaining quotes to conduct the lead service line inventory later this
20 year. We anticipate issuing the contract by the end of 2023 and have a preliminary
21 inventory completion target date of May 2024.

22

1 **Q: Do DEF's expected Lead and Copper Rule Program (Project No. 20)**
2 **compliance activity costs meet the recovery criteria established by Order No.**
3 **94-0044-FOF-EI?**

4 A: Yes. The proposed Lead and Copper Rule program meets the recovery for ECRC
5 cost recovery established by Order No. PEC-94-0044-FOF-EI in that:

- 6 d) All expenditures will be prudently incurred after April 13, 1993;
- 7 e) The activities are legally required to comply with a governmentally imposed
8 environmental regulation enacted, became effective, or whose effect was
9 triggered after the Company's last test year upon which rates are based; and
- 10 f) The expenditures are not being recovered through some other cost recovery
11 mechanism or through base rates.

12

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

14 A. Yes.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

ERIC SZKOLNYJ

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20230007-EI

August 25, 2023

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

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

4

5 **Q. Have you previously filed testimony before this Commission in Docket No.**
6 **20230007-EI?**

7 A. Yes. I provided direct testimony on March 31, 2023, and July 28, 2023.

8

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

11 A. No.

12

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

14 A. The purpose of my testimony is to provide an update on Duke Energy Florida,
15 LLC's ("DEF" or "Company") proposed compliance activities and related 2024
16 estimated costs associated with the Coal Combustion Residual ("CCR") Rule for

1 which the Company seeks recovery under the Environmental Cost Recovery
2 Clause (“ECRC”).

3

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

6 A. Yes. I am co-sponsoring the following portion of Exhibit No. __ (GPD-3) to
7 Gary P. Dean’s direct testimony:

- 8 • 42-5P page 23 – Coal Combustion Residual Rule

9

10 **Q. What O&M costs does DEF expect to incur in 2024 for the Coal Combustion**
11 **Residual Rule Program (Project No. 18)?**

12 A. DEF is forecasting \$521k in O&M costs for 2024.
13 Various maintenance and repair work is required for the ash landfill to comply
14 with the rule. This includes maintenance of the landfill cover, vegetation
15 management, fugitive dust mitigation, weekly and annual inspections, and
16 cleanout of the lined sedimentation pond and perimeter ditches which were
17 installed as groundwater corrective measures. DEF will also continue to perform
18 the required groundwater monitoring for ash management units, which includes
19 engineering, sampling, analysis, and reporting.

20

21 **Q. What Capital costs does DEF expect to incur in 2024 for the Coal**
22 **Combustion Residual Rule Program (Project No. 18)?**

23 A. DEF does not expect capital expenditures in 2024.

24

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

2 **A. Yes.**

3

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

REGINALD ANDERSON

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20230007-EI

August 25, 2023

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

2 A. My name is Reginald Anderson. My business address is 299 1st Avenue North,
3 St. Petersburg, FL 33701.

4

5 **Q. Have you previously filed testimony before this Commission in Docket No.**
6 **20230007-EI?**

7 A. Yes. I provided direct testimony on March 31, 2023, and July 28, 2023.

8

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

11 A. No.

12

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

14 A. The purpose of my testimony is to provide estimates of ECRC-recoverable costs
15 that will be incurred in 2024 for Duke Energy Florida, LLC's ("DEF" or
16 "Company") environmental compliance programs under my responsibility.

1 These programs include the CAIR/CAMR Crystal River (“CR”) Program (Project
2 7.4), Mercury and Air Toxics Standards (MATS) – Crystal River (CR) 4&5
3 (Project 17), Mercury and Air Toxics Standards (MATS) – Anclote Gas
4 Conversion (Project 17.1), and Mercury & Air Toxics Standards (MATS) –
5 Crystal River 1&2 Program (Project 17.2).

6

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

9 A. Yes. I am co-sponsoring the following portions of Exhibit No. __ (GPD-3) to
10 Gary P. Dean’s direct testimony:

- 11 • 42-5P page 7 of 25 – Clean Air Interstate Rule (CAIR)
- 12 • 42-5P page 20 of 25 - MATS – CR4&5
- 13 • 42-5P page 21 of 25 - MATS – Anclote Gas Conversion
- 14 • 42-5P page 22 of 25 - MATS – CR1&2

15

16 **Q. What O&M costs does DEF expect to incur in 2024 for the CAIR/CAMR**
17 **Crystal River – Energy Program (Project 7.4)?**

18 A. DEF estimates O&M costs of approximately \$9.2M to support reagent and bi-
19 product costs (ammonia, limestone, hydrated lime, caustic, dibasic acid, and net
20 gypsum sales/disposal) for use at the CR Energy Complex (“CREC”) as outlined
21 in DEF’s Integrated Clean Air Compliance Plan.

22

23 **Q. What O&M costs does DEF expect to incur in 2024 for the MATS Program**
24 **– CR 4&5 (Project No. 17)?**

1 A. DEF estimates O&M costs of approximately \$200k for CR 4&5 MATS
2 compliance. This estimate includes emissions testing, burner inspections,
3 maintenance of emissions monitoring and control technologies, and reagent costs.

4

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

6 A. Yes.

7