

State of Florida



# Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD  
TALLAHASSEE, FLORIDA 32399-0850

**-M-E-M-O-R-A-N-D-U-M-**

---

**DATE:** October 20, 2016

**TO:** Office of Commission Clerk (Stauffer)

**FROM:** Division of Engineering (Lee) *POE W*  
Division of Accounting and Finance (Slemkewicz) *TS*  
Division of Economics (Guffey, Wu) *JS M*  
Office of the General Counsel (Janjic) *B of CRBP ALM*

**RE:** Docket No. 160128-EI – Petition for approval to include in base rates the revenue requirement for the Hines Chillers Uprate Project, by Duke Energy Florida, LLC.

Docket No. 160178-EI – Petition for limited proceeding for approval to include in base rates the revenue requirement associated with the acquisition of the Osprey Plant and Phase 2 of the Hines chiller uprate project, by Duke Energy Florida, LLC.

**AGENDA:** 11/1/16 – Regular Agenda – Tariff Filing – Interested Persons May Participate

**COMMISSIONERS ASSIGNED:** All Commissioners

**PREHEARING OFFICER:** Edgar

**CRITICAL DATES:** Docket No. 160178-EI: Waiver of 60-day time limit (DN 07427-16)

**SPECIAL INSTRUCTIONS:** None

---

## Case Background

By Order No. PSC-13-0598-FOF-EI, the Commission approved the Revised and Restated Stipulation and Settlement Agreement (RRSSA).<sup>1</sup> Paragraph 16(a) of the RRSSA includes

<sup>1</sup>Order No. PSC-13-0598-FOF-EI, issued November 12, 2013, in Docket No. 130208-EI, *In re: Petition for limited proceeding to approve revised and restated stipulation and settlement agreement by Duke Energy Florida, Inc. d/b/a Duke Energy.*

provisions for Duke Energy Florida, LLC (DEF) to seek recovery of the prudently incurred revenue requirement of power uprates to existing DEF units, which may be placed in-service prior to year-end 2017, through a separate base rate increase at the time each unit is placed in service.

On October 18, 2016, DEF filed a motion requesting withdrawal of the tariffs for Phase 1 of the Hines Project approved in Docket 160128-EI. The motion is addressed in Issue 3 of the recommendation. Phase 1 work on Hines Units 1-3 and the common equipment was expected to be completed and placed into commercial service in October 2016, while Phase 2 work on Hines Unit 4 was expected to be completed in January 2017. In its motion, DEF stated that a portion of the common equipment required for both phases will not be completed as previously expected. Therefore, DEF requests withdrawal of the approved tariffs until it files another request for both phases of the Hines Project. On October 19, 2016, DEF filed revised tariffs to reflect the withdrawal of Phase 2 of the Hines Project from the instant petition.

The Hines Project consists of installation of chiller modules for the existing Hines Energy Center power block units, a large chilled water storage tank, an auxiliary power system, pumps and chilled water supply and return piping, and gas turbine air inlet chiller coils. The installation of the chiller system on the existing Hines Energy Center power block units (Hines Units 1 - 4) is designed to cool the gas turbine inlet air, thus increasing the capacity of each power block while maintaining fuel efficiency. Hines Units 1 - 4 have a total installed capacity of approximately 1,900 megawatts (MW). The project is expected to increase the summer capacity of those units by approximately 220 MW to meet the summer peak demand, which DEF projected to grow to 9,439 MW by the summer of 2018. By Order No. PSC-14-0590-FOF-EI, the Commission granted DEF a determination of need for the Hines Project.<sup>2</sup> By Order No. PSC-16-0362-TRF-EI, issued August 29, 2016, the Commission determined DEF's cost for the Hines Project to be reasonable and approved the revenue requirement for Phase 1 of the Hines Project.<sup>3</sup> The order was not protested and the consummating order was issued on September 29, 2016. On August 2, 2016, DEF filed a petition for approval to include in base rates the revenue requirement associated with the acquisition of the Osprey Plant and Phase 2 of the Hines Project.

The Osprey Plant is an existing 599 MW natural gas fired combined cycle generation facility in Auburndale, Florida, that was originally put in service in 2004. The plant has been providing its capacity and energy to DEF under a power purchase agreement. The Osprey Plant acquisition was granted by the Commission in a determination of need by Order No. PSC-15-0312-AS-EI in Docket No. 150043-EI.<sup>4</sup> The decision was based on a stipulation reached by parties in that proceeding, including the Office of Public Counsel (OPC), Florida Industrial Power Users Group (FIPUG), Osprey Energy Center, PCS Phosphate-White Springs (PCS), and DEF. Based on information in the docket, the acquisition cost for the Osprey Plant was \$166 million, subject to

---

<sup>2</sup>Order No. PSC-14-0590-FOF-EI, issued October 21, 2014, in Docket No. 140111-EI, *In re: Petition for determination of cost effective generation alternative to meet need prior to 2018, by Duke Energy Florida, Inc.*

<sup>3</sup>Order No. PSC-16-0362-TRF-EI, issued August 29, 2016, in Docket No. 160128-EI, *In re: Petition for approval to include in base rates the revenue requirement for the Hines Chillers Uprate Project, by Duke Energy Florida, LLC.*

<sup>4</sup>Order No. PSC-15-0312-AS-EI, issued July 31, 2015, in Docket No. 150043-EI, *In re: Petition for determination that the Osprey Plant acquisition or, alternatively, the Suwannee Simple Cycle Project is the most cost effective generation alternative to meet remaining need prior to 2018, by Duke Energy Florida, Inc.*

Docket Nos. 160128-EI and 160178-EI

Date: October 20, 2016

certain specified adjustments based on the asset purchase agreement. DEF also provided estimates for additional cost after the acquisition including integration, maintenance, and inventory. These costs and time frame for the work were taken into account in the cumulative present value revenue requirements (CPVRR) analysis, to show the cost effectiveness of acquiring the Osprey Plant in comparison with the alternative of the construction of the Suwannee Simple Cycle Project. The order approving the stipulation stated that the acquisition of the Osprey Plant is the most cost effective way to meet DEF's generation need prior to 2018. The closing for the Osprey Plant acquisition is expected to occur on January 3, 2017.

The Commission has jurisdiction pursuant to Section 366.06, Florida Statutes (F.S.).

## Discussion of Issues

**Issue 1:** Should the Commission approve DEF's proposed revenue requirement of \$47,982,181 for Osprey Plant, along with the proposed depreciation rate and methodology for the Osprey Plant?

**Recommendation:** No. The revenue requirement for the Osprey Plant should be \$47,836,801. The proposed depreciation rate and methodology for the Osprey Plant should be approved. In addition, DEF should be required to file annual reports with the Commission, detailing the actual outage costs incurred and the accounting treatment associated with the Osprey outage cost deferral, in its year-end earnings surveillance reports for 2017 through 2019. (Lee, Slemkewicz, Wu)

**Staff Analysis:** DEF is seeking to recover the full, prudently incurred revenue requirement for the asset purchase and additional cost associated with the Osprey Plant acquisition, pursuant to Paragraph 16(a) of the RRSSA. DEF requests that the revenue requirement of \$47,982,181 for the Osprey Plant acquisition be approved. DEF also requests that its proposed depreciation rate and methodology for the Osprey Plant be approved.

### Cost Estimates for the Osprey Plant Acquisition

The acquisition of the 599 MW combined cycle Osprey Plant was approved by the Commission in Docket No. 150043-EI as the most cost effective way to meet DEF's generation need prior to 2018. DEF's testimony and documents presented in that docket included the acquisition cost for the Osprey Plant and estimates for additional cost after the acquisition, which were taken into account in the CPVRR analysis to show the cost effectiveness of acquiring the Osprey Plant.

In response to staff's data request, DEF compared current cost information estimates with those provided in Docket No. 150043-EI. DEF's \$198.2 million capital cost estimate in this docket is composed of \$166 million for Osprey Plant acquisition cost, \$1.8 million for integration cost, and \$30.4 million for capital investment in 2017. The integration capital is necessary for the continued operation of the Osprey Plant on DEF's system consistent with DEF's standard policies and practices, such as costs to re-stock and maintain equipment and material inventory for this purpose. The capital investment in 2017 consists of the capital work scheduled for the maintenance outage in 2017, including work on the combustion turbines and steam turbines that will be coming up on their major maintenance intervals. While the Osprey Plant acquisition cost has not changed, the revised estimates for integration cost and capital investment in 2017 have reduced by \$3.1 million and \$1.3 million respectively.

In addition, DEF lowered its major capital cost estimate in 2018 by approximately \$3.6 million based on updated cost projection and vendor estimates.<sup>5</sup> On the other hand, DEF increased its cost estimates for major Operation and Maintenance (O&M) cost estimates for work scheduled for two major maintenance outages in 2017 and 2018, which were anticipated and addressed in Docket No. 150043-EI. In 2017, the outage O&M cost estimate is \$4.3 million higher in the

---

<sup>5</sup>Document No. 07363-16 (DEF's Redacted Response to Staff's First Data Request), Attachment 8, Line 27.

instant docket than in Docket No. 150043-EI.<sup>6</sup> This increase is driven primarily by updated cost estimates and work scope resulting from DEF's ongoing due diligence and integration planning and analysis. The updated cost estimates are driven by actual quotes from vendors and executed contracts.<sup>7</sup> DEF provided a cost breakdown of these major outage O&M costs, projected at approximately \$14.3 million, \$5.1 million, and \$2.5 million for 2017, 2018, and 2019, respectively.<sup>8</sup>

Staff asked DEF to demonstrate the net effect of the variance in capital and operating costs using the same CPVRR analysis performed in Docket No. 150043-EI. DEF's response shows \$72 million CPVRR savings in comparison to the previous estimate of \$61 million, an increase of \$11 million.<sup>9</sup>

While the cumulative effect is favorable to customers, there is an immediate revenue requirement impact by the 2017 outage O&M cost of \$14.3 million, which is \$4.3 million higher than previously estimated. To mitigate this adverse impact to customers, DEF proposed to defer a portion of the outage cost with the creation of a regulatory asset. As further discussed in the next section, this lowers the first year revenue requirement by approximately \$6.5 million on a jurisdictional basis. Based on the above, staff recommends that the cost estimate for the Osprey Plant acquisition be considered reasonable.

#### **Osprey Plant Outage O&M Cost Deferral**

The average of the estimated outage O&M cost for 2017 through 2019 is \$7,282,687, which is \$7,011,732 lower than the estimated outage O&M cost for 2017. Because rates are set based on the first-year revenue requirement, including the 2017 major maintenance outage, DEF proposes to defer a portion of the 2017 outage O&M costs and charge that amount to a regulatory asset. Rather than using the \$14.3 million amount to set rates, DEF proposes to use the 3-year average of \$7,282,687. In 2017, DEF would defer up to \$7,011,732 and debit that amount to a regulatory asset. DEF would amortize the regulatory asset in 2018 and 2019, when outage costs are lower, fully amortizing the regulatory asset balance by the end of 2019.

Staff agrees with DEF that this proposed regulatory asset treatment reduces the impact to customers, while allowing DEF an opportunity to account for its full cost of integrating the Osprey Plant into its system. The creation of the regulatory asset lowers the first year revenue requirement by approximately \$6.5 million on a jurisdictional basis. Consistent with Commission practice, staff recommends that DEF should file annual reports with the Commission, detailing the actual outage O&M costs incurred and the accounting treatment associated with the regulatory asset, in conjunction with its year-end earnings surveillance reports during the three years. This ensures that only the actual cost deferral, subject to a cap of \$7,011,732, be amortized with this proposed regulatory asset treatment.

---

<sup>6</sup>Ibid, Attachment 7, Line 15.

<sup>7</sup>Ibid, Pp. 3-4.

<sup>8</sup>Ibid, Attachment 7, Lines 5- 27.

<sup>9</sup>Ibid, Attachment 5.

### **Osprey Plant Depreciation Rate and Methodology**

In determining the revenue requirements associated with acquisition of the Osprey Plant, DEF needs a Commission-approved depreciation rate for the plant. By applying this rate, DEF can calculate the annual depreciation expense and accumulated depreciation reserve so that the operation expense and the net plant as of December 31, 2017, can be derived.

DEF witness Foster testified that the Federal Energy Regulatory Commission (FERC) requires DEF to apply the approved depreciation rate to the original cost of the Osprey Plant of \$359 million, rather than the net acquisition cost of the plant of \$168 million, which is composed of acquisition cost and integration cost. To resolve this unique problem of depreciation accounting, DEF proposed a method to calculate the effective depreciation rate. On page 4, Item 10, of its petition, DEF requested specific approval of the rate and methodology from the Commission.

DEF has assumed a 26-year remaining life (or until 2042) for the generating unit at Osprey.<sup>10</sup> Staff believes this assumption is reasonable based on its review of the reasons and justifications provided by the Company.<sup>11</sup> Based on this assumed plant remaining life, a remaining life depreciation rate of 3.85 percent results in accordance with Rule 25-60436(1)(e), F.A.C. Applying this rate to the net acquisition cost of \$168 million, the actually required annual depreciation expense of \$6.456 million is derived for recovering the plant investment of the Osprey unit within its service life.

To satisfy FERC's accounting and book keeping requirement, DEF must determine a rate to be applied to the original plant cost of \$359 million. Using this original plant cost, divided by the actual annual depreciation expense of \$6.456 million, an effective depreciation rate of 1.80 percent is derived. This is the methodology DEF proposed. Detailed step-by-step calculations are reflected in Attachment A.

Staff believes that DEF's proposed method for deriving the effective depreciation rate is appropriate. Using the resulting rate of 1.80% to apply to the original costs of the Osprey Plant, the actual acquisition cost will be recovered within the plant's service life in accordance with the aforementioned depreciation rule. Staff notes that the Osprey Plant will be included in DEF's next depreciation study, to be filed on or before March 31, 2019, in accordance with the same rule. At that time, the Company's proposed remaining life and depreciation rate associated with the Osprey Plant will be further reviewed by the Commission.

Based on the above, staff recommends approval of DEF's proposed depreciation methodology and rate.

### **Osprey Plant Revenue Requirement**

Based on the estimated cost of the Osprey Plant acquisition, DEF calculated a revenue requirement of \$47,982,181.<sup>12</sup> In accordance with paragraph 16(a) of the RRSSA, DEF utilized the capital structure from its most recent actual Earnings Surveillance Report (ESR) available at

---

<sup>10</sup>P.4, Item 10, of DEF's Petition.

<sup>11</sup>See DEF's response to Staff's Data Request, No. 2.

<sup>12</sup>Exhibit C, p. 1 of 3, of Document No. 05793-16 (DEF's Petition).

the time of its filing and a 10.50 percent return on equity to calculate the revenue requirement.<sup>13</sup> The revenue requirement calculation also includes the recovery of O&M expenses, depreciation expense, property insurance, property tax, and income tax. Subsequent to the filing of its petition using the May 2016 ESR, DEF has submitted more current ESRs with the most recent being for August 2016. Staff has calculated a revised revenue requirement of \$47,836,801 based on the capital structure provided in the August 2016 ESR. This represents a \$145,380 revenue requirement reduction. Staff recommends that the \$47,836,801 revenue requirement based on the most recently available ESR is the appropriate amount as shown on Attachment B.

### **Conclusion**

The revenue requirement for the Osprey Plant should be \$47,836,801. The proposed depreciation rate and methodology for the Osprey Plant should be approved. In addition, DEF should be required to file annual reports with the Commission, detailing the actual outage costs incurred and the accounting treatment associated with the Osprey outage cost deferral, in its year-end earnings surveillance reports for 2017 through 2019.

---

<sup>13</sup> May 2016 Earnings Surveillance Report.

**Issue 2:** Should the Commission approve DEF's proposed tariffs and associated charges?

**Recommendation:** Yes. If the Commission approves Issue 1, the Commission should give staff administrative authority to approve tariffs and associated charges that implement the Commission vote regarding the Osprey Plant. The charges should go into effect with the first billing cycle in February 2017. If the acquisition of the Osprey Plant is delayed, then the tariffs should become effective at the time the Osprey Plant is acquired. (Guffey)

**Staff Analysis:** As discussed in Issue 1, staff is recommending a reduction in the revenue requirement for the Osprey Plant. DEF provided work papers showing the allocation of the DEF proposed revenue requirements to all its rate classes at a uniform percentage (2.84 percent) as shown in revised Exhibit D filed on October 19, 2016. Under DEF's proposal, a residential customer who uses 1,000 kilowatt-hours will see a \$1.41 increase on the monthly bill (excluding Gross Receipt Tax). The DEF proposed base rates are shown in revised Exhibit E of the revised filing and DEF's proposed tariffs are shown in revised Exhibits F and G. DEF requested that the tariffs become effective with the first billing cycle of February 2017.

### **Conclusion**

If the Commission approves the staff recommendation in Issue 1 to reduce the revenue requirement for the Osprey Plant, DEF should recalculate the rates, and file revised tariff sheets (if DEF's proposed rates are affected by the decrease in the revenue requirements approved in Issue 1) for administrative approval by staff. The charges should go into effect with the first billing cycle in February 2017. If the acquisition of the Osprey Plant is delayed, then the tariffs should become effective at the time the Osprey Plant is acquired.



**Issue 3:** Should DEF's motion requesting withdrawal of the tariffs for Phase 1 of the Hines Project approved in Docket 160128-EI be approved?

**Recommendation:** Yes, DEF's motion requesting withdrawal of the tariffs for Phase 1 of the Hines Project approved in Docket 160128-EI should be approved. (Guffey)

**Staff Analysis:** Phase 1 work on Hines Units 1-3 and the common equipment was expected to be completed and placed into commercial service in October 2016. Therefore, in Order No. PSC-16-0362-TRF-EI, the Commission approved that the tariffs for Phase 1 of the Hines project and associated charges shall go into effect with the first billing cycle in November 2016.

As stated in the case background, DEF stated in its motion requesting withdrawal of the tariffs that a portion of the common equipment required for both phases will not be completed as previously expected. Therefore, DEF requests withdrawal of the approved tariffs until it files another request for both phases of the Hines Project. DEF will continue billing customers consistent with the tariffs that are currently in effect and not the tariffs approved in Docket 160128-EI. This is consistent with provision under Paragraph 16(a) of the RRSSA, which contemplates that customers would not be charged for the project cost until such project is placed into service.

Therefore, staff recommends that DEF's motion requesting withdrawal of the tariffs for Phase 1 of the Hines Project approved in Docket 160128-EI should be approved.

**Issue 4:** Should these dockets be closed?

**Recommendation:** Yes. If Issues 1 and 2 are approved, the tariff related to the Osprey acquisition should go into effect with the first billing cycle in February 2017. If a protest is filed within 21 days of the issuance of the order, the tariff should remain in effect, with any revenues held subject to refund, pending resolution of the protest. If no timely protest is filed, Docket No. 160178-EI should be closed upon the issuance of a consummating order. If Issue 3 is approved, Docket No. 160128-EI should be closed. (Janjic)

**Staff Analysis:** If Issues 1 and 2 are approved, the tariff related to the Osprey acquisition should go into effect with the first billing cycle in February 2017. If a protest is filed within 21 days of the issuance of the order, the tariff should remain in effect, with any revenues held subject to refund, pending resolution of the protest. If no timely protest is filed, these dockets should be closed upon the issuance of a consummating order. If Issue 3 is approved, Docket No. 160128-EI should be closed.

Duke Energy Florida, LLC  
Estimated First Year Revenue Requirements – Osprey Plant

**Proposed Acquisition Journal Entries (\$ in 000s):**

1 Original Plant cost (101)	358,787
2 Accumulated Depreciation (108)	(108,900)
3 Negative acquisition Adjustment (114-108)	<u>(83,887)</u>
4 Net purchase price (Line 1 + 2 + 3)	166,000

**Equivalent Depreciation Rate Calculation:**

5 Net purchase price (Line 4)	166,000
6 Integration Capital & Transaction Costs	<u>1,845</u>
7 Net Acquisition Cost (Line 5 + 6)	167,845
8 Expected Life (26 years)	<u>3.85%</u>
9 Annual Depreciation Expense (Line 7 x 8)	6,456
10 Original Plant cost (101) (Line 1)	358,787
11 Effective Depreciation Expense (Line 9)	6,456
12 Equivalent Depreciation Rate (Line 11 / 10)	1.80%

**Depreciation Expense in Revenue Requirement:**

13 Original Plant cost (101) (Line 1)	358,787
14 2017 Capital Investment	<u>30,379</u>
15 Ending Balance (Line 13 + Line 14)	389,166
16 Average Balance (Line 13 + 15) / 2	373,977
17 Equivalent Depreciation Rate (Line 12)	<u>1.80%</u> (Note 1)
18 Annual Depreciation Expense (Line 16 x 17)	<u>6,729</u>

Note 1: The depreciation rate recovers the book cost of the Osprey asset only, and does not include cost of removal & dismantlement costs. Cost of Removal & Dismantlement will be addressed in DEF's next depreciation and dismantlement study to be filed on or before March 31, 2019, per RRSSA paragraph 20.

DUKE ENERGY FLORIDA, LLC  
 DOCKET NO. 160178-EI  
OSPREY PLANT REVENUE REQUIREMENT CALCULATION

Line No.	OSPREY PLANT		
	DEF ESR May 2016	STAFF ESR Aug 2016	
	<u>Capital Structure Weighted Cost: (a)</u>		
1	Long Term Debt	1.81%	1.79%
2	Short Term Debt	0.02%	0.03%
3	Customer Deposits	0.04%	0.04%
4	Total (L1 + L2 + L3)	<u>1.87%</u>	<u>1.86%</u>
5	Overall Rate of Return (a)	<u>6.74%</u>	<u>6.68%</u>
6	Average Jurisdictional Rate Base	\$165,868,000	\$165,868,000
7	Interest Expense (L4 x L6)	\$3,102,000	\$3,085,145
8	Interest Income Tax (L7 x 38.575%)	(\$1,196,000)	(\$1,190,095)
9	Operating Expenses	(\$31,560,000)	(\$31,560,000)
10	Operating Expenses Income Tax (L9 x 38.575%)	12,174,000	12,174,000
11	Interest Income Tax (L8)	1,196,000	1,190,095
12	Net Operating Income Loss (L9 + L10 + L11)	<u>(\$18,189,000)</u>	<u>(\$18,195,905)</u>
	<u>Revenue Requirement Calculation</u>		
13	Average Jurisdictional Rate Base (L6)	\$165,868,000	\$165,868,000
14	Rate of Return (L5)	6.74%	6.68%
15	Required Return (L13 x L14)	<u>11,179,000</u>	<u>11,079,982</u>
16	Net Operating Income Loss (L12)	(18,189,000)	(18,195,905)
17	Net Operating Income Deficiency (L15 + L16)	<u>29,369,000</u>	<u>29,275,888</u>
18	Net Operating Income Multiplier	1.634	1.634
19	Revenue Requirement (L17 x L18)	<u>\$47,982,181</u>	<u>\$47,836,801</u>
20	Difference		<u>(\$145,380)</u>

Note:

(a) Source - May 2016 ESR and August 2016 ESR, Schedule 4, Page 3 of 4.