BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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| In re: Petition for approval to terminate qualifying facility power purchase agreement with Florida Power Development, LLC, by Duke Energy Florida, LLC. | DOCKET NO. 20170274-EQ<br>ORDER NO. PSC-2018-0240-PAA-EQ<br>ISSUED: May 8, 2018 |

The following Commissioners participated in the disposition of this matter:

ART GRAHAM, Chairman
JULIE I. BROWN
DONALD J. POLMANN
GARY F. CLARK
ANDREW GILES FAY

NOTICE OF PROPOSED AGENCY ACTION ORDER
APPROVING TERMINATION OF POWER PURCHASE AGREEMENT
BETWEEN DUKE ENERGY FLORIDA, LLC
AND FLORIDA POWER DEVELOPMENT, LLC

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission (Commission) that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code (F.A.C.).

**Case Background**

On December 29, 2017, Duke Energy Florida, LLC (DEF or Company) filed a petition requesting approval of a termination agreement (Termination Agreement) between DEF and Florida Power Development, LLC (FPD) to terminate a power purchase agreement (PPA) that is no longer cost-effective for DEF customers. The FPD facility is an approximately 60 megawatt (MW) biomass-fired qualifying facility, located in Brooksville, Florida, which came online in May 2014. DEF has been purchasing energy and capacity from the FPD facility since May 2014 pursuant to the PPA approved by this Commission in 2009. The Office of Public Counsel intervened on January 3, 2018.

We have jurisdiction over this matter pursuant to Sections 366.051, 366.81, and 366.91, Florida Statutes (F.S.).

## Analysis

*I. DEF's Proposal*

At the time of the PPA approval, the PPA was cost-effective and did not exceed DEF's then current avoided costs. Since that time, DEF's avoided costs have decreased, and now payments under the PPA exceed DEF's current avoided costs. The PPA is at a fixed contractual energy rate; therefore, any changes in fuel prices are borne by customers. To verify the suitableness of the proposed Termination Agreement, we evaluated the forecasting, cost assumptions, and effects on reliability. As discussed below, there are projected benefits of the Termination Agreement that would produce savings for DEF's customers, with benefits accruing immediately.

Under the proposed Termination Agreement, DEF would pay a total of $105 million to FPD in exchange for FPD's agreement to terminate its qualifying facility status, permanently shut down the FPD facility, and terminate any interconnection agreements for the FPD facility by December 31, 2018. The Termination Agreement, including the establishment of a regulatory asset for the FPD termination payment, is contingent upon this Commission's approval. The FPD termination payment would be recovered through the Fuel and Purchase Power Cost Recovery Clause (Fuel Clause) by amortizing the FPD regulatory asset at a rate of approximately $7 million per year through May 2034, the original expiration date of the PPA.

By terminating the existing PPA, and avoiding the associated energy and capacity payments, a system savings to customers is realized. Unlike a traditional PPA, DEF's PPA with FPD is a combined contractual energy rate for both energy and capacity. The PPA payments are calculated by multiplying the energy provided by FPD in megawatt-hours (MWh) times the contractual energy rate ($/MWh). The energy and capacity payments would occur over the rest of the term of the existing PPA, for the period of May 2018 through May 2034. By terminating the PPA, customers would benefit through lower projected fuel prices. Terminating the PPA without acquiring the facility allows DEF to avoid additional risks associated with the cleanup and dismantlement of the FPD facility.

DEF calculated its Cumulative Present Value Revenue Requirement (CPVRR), including its base case and sensitivities, for the Termination Agreement using base, high, and low fuel price forecasts. DEF also calculated "Base Case $CO_2$" and "No $CO_2$" carbon emission price forecasts for the period of May 2018 through May 2034. The Company performed its base case analyses and sensitivities under two generation assumptions: (1) 421 gigawatt-hours (GWhs) (Upper Band) and (2) 378 GWhs (Lower Band). In this way, 12 base case and sensitivities to the base case were derived. As detailed below, we reviewed the Company's fuel price and $CO_2$ emissions price forecasts.

*II. Fuel Price Forecast*

DEF's base case fuel price forecast used in the CPVRR analysis was prepared in the Fall of 2016, and was previously provided by DEF for purposes of our consideration of the 2017 DEF Ten-Year Site Plan (TYSP), DEF's 2017 Standard Offer Contract (Docket No. 20170072-EQ),

and DEF's QF Coal Proxy Substitution (Docket No. 20170248-EI). DEF's natural gas fuel price forecasts include both its short term fuel forecast, based on NYMEX futures price contracts, and its long term forecast, based on a collaborative approach between the Company and its industry consultant, Energy Ventures Analysis. The same short term and long term approach is used by the Company to forecast coal and oil prices.

DEF's fuel price forecast sensitivities are based on its recent past fuel forecasts which encompass differing assumptions about elements that affect the price of natural gas, and (to a lesser extent) coal. DEF relied upon its natural gas price forecast used to prepare its 2016 TYSP for its high fuel price forecast sensitivity. DEF relied upon its Spring 2017 fuel price forecast for its low fuel price case. The high and low fuel price forecasts vary from the base case forecast by approximately 20 percent.

As discussed above, DEF's base case natural gas fuel price forecast, prepared in the Fall of 2016, is higher than its most recent fuel price forecast prepared in the Spring of 2017. Using this (Fall 2016) higher forecast as DEF's base case forecast is a more conservative assumption for purposes of DEF's CPVRR analysis. Moreover, while natural gas prices have been trending downward for several years, DEF's upward trending base case natural gas fuel price forecast appears to be contained within the range of similar vintage forecasts from industry-recognized third parties. Upon review, we find DEF's fuel price forecasts to be reasonable.

*III. Emission Reductions and $CO_2$ Price Forecasts*

A portion of the expected net benefits of the Termination Agreement results from the savings attributable to reduced $CO_2$ emissions. DEF expects that the proposed retirement of the FPD facility will result in a reduction of 2.3 to 2.6 million tons of $CO_2$ emissions over the 16-year period. The Company's estimate of the cost savings from the Termination Agreement are based on reductions of $CO_2$ emissions that would have been required by the Environmental Protection Agency's (EPA) 2015 Clean Power Plan. DEF notes that the EPA's Clean Power Plan and related litigation remain "on hold," with any change in regulation unlikely under the current administration.

In its analysis of cost savings under various fuel price and carbon cost scenarios, DEF considered "base-case" (low-cost) scenarios, featuring cost-savings generated by reductions in carbon emissions from 2025 to the end of the term in 2034, as well as "No $CO_2$" (zero-cost) scenarios which extend from 2018 through 2034. DEF considers "No $CO_2$" scenarios, which would produce no $CO_2$ cost savings for DEF customers, to be conservative.

DEF's $CO_2$ price forecast for its base case scenario was prepared in 2016 for its 2017 TYSP. The Company's base case analysis assumes an emission price equal to the per-ton cost of reduction, and DEF used that estimate of cost as a proxy for emission price. DEF forecasts nominal savings from avoided $CO_2$ reductions to go from $14.50 per ton in 2025 to $14.10 per ton in 2034.

DEF notes that no national $CO_2$ emissions market currently exists, and that DEF has never incurred direct costs related to $CO_2$ emissions. Upon review, we find that DEF's approach to providing a base and an alternative view of $CO_2$ pricing is reasonable.

*IV. Cost/Benefit Analysis*

The avoided PPA payment reflects the system savings to customers by terminating the existing PPA and avoiding the energy and capacity payments. These are calculated by multiplying the energy provided by FPD in MWh times the contractual energy rate ($/MWh). The payments to FPD would occur over the rest of the term of the existing PPA (May 2018 through May 2034). By terminating the PPA, customers would benefit from lower projected fuel prices. Terminating the PPA without acquiring the facility allows DEF to avoid additional risks associated with the cleanup and dismantlement of the FPD facility. As previously discussed, DEF evaluated two scenarios of a Lower Band of 378 GWh of annual output and an Upper Band of 421 GWh of annual output. Each scenario assumed a base case fuel scenario and a carbon emission cost which begins in 2025. DEF also performed low and high fuel sensitivities, along with a no carbon cost sensitivity for each, for a total of 12 CPVRR analyses. The results of the 12 sensitivities are set forth in the table below.

**CPVRR Net Cost / (Savings) of FPD Termination Agreement**
**$ Millions (2018)**

| | | **Low Fuel** | **Base Case Fuel** | **High Fuel** |
|---|---|---|---|---|
| **Upper Band (421 GWh)** | Base Case | (91) | (59) | (20) |
| | No $CO_2$ | (85) | (47) | (9) |
| | | | | |
| **Lower Band (378 GWh)** | Base Case | (67) | (38) | (3) |
| | No $CO_2$ | (61) | (28) | 7 |

All but one of the 12 sensitivities produce savings with the termination of the PPA – the No $CO_2$/High Fuel sensitivity. The presence of $CO_2$ pricing made a minor difference in the amount of projected savings that would be expected with the Termination Agreement. This minor difference applied to both the Upper Band and Lower Band for all of the fuel sensitivities. DEF has determined that the breakeven GWh amount for customers for a fuel base case both with $CO_2$ and without $CO_2$ would be approximately 300 GWhs (in Annualized GWhs delivered). When comparing the breakeven amount to the historical performance of the FPD described in the petition, 300 GWhs would be an unlikely amount because the GWh delivered has historically increased, and according to DEF, is likely to continue increasing. The continued increase in annualized GWh delivered by FPD was estimated to be as high as 540 GWh, which would cause customers to incur more costs if the PPA continued. Upon review, we find that on an economic basis, the Termination Agreement is beneficial for customers.

*V. Non-Economic Evaluation*

DEF does not currently have a need for the firm capacity and energy from the FPD facility. The loss of the 54 MW of peak firm capacity provided by FPD will affect DEF's

reliability reserve margin, but does not cause it to fall below DEF's planning metrics. The impact on capacity of the loss of the PPA is approximately 0.7 percent of the summer reserve margin in 2018. This would result in a 2018 summer reserve margin of 22.7 percent, which would keep DEF above the 20 percent reserve margin deemed suitable by this Commission. Upon review of DEF's 2017 TYSP, we find that the Termination Agreement should not accelerate the need for any future units. Furthermore, of the 511 MW firm renewable and cogeneration contracts that DEF has, the FPD facility only comprises 11.7 percent of the total amount of renewable generation.

*VI. Recovery of Regulatory Asset*

Consistent with the Stipulation and Settlement Agreement issued in August 2012,[1] DEF used the May 2017 Earnings Surveillance Report (ESR) capital structure and cost rates, as filed in DEF's Actual/Estimated filing in Docket No. 20170001-EI on July 27, 2017. The May 2017 ESR reported an overall rate of return of 6.71 percent.

We approved the existing PPA and the recovery of the asset occurred through the Fuel Clause. DEF proposes to recover the regulatory asset that will be established for the termination payment through the Fuel Clause as well, over the remaining PPA period which ends in May 2034. DEF requested a recovery of approximately $7 million per year. DEF also proposes to amortize the regulatory asset over the remaining PPA period, and to earn a return at DEF's Retail Weighted Average Cost of Capital on the unrecovered FPD regulatory asset balance through the Fuel Clause. Upon review, we find DEF's proposal to establish a regulatory asset and recover it through the Fuel Clause, and the corresponding return terms, to be appropriate.

**Decision**

We have reviewed the Termination Agreement and find that terminating the existing PPA is economically beneficial to customers, and is estimated to save them between $38 million and $59 million in NPV. In calculating the projected benefits, we find that DEF's fuel price forecasts and approach to providing a base and alternative view of $CO_2$ pricing is reasonable. We further find that the establishment of a regulatory asset, to be amortized over the remaining contract term through May 2034, and to be eligible for recovery through the Fuel Clause, is appropriate at the terms indicated in the Termination Agreement.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that Duke Energy Florida, LLC's Termination Agreement with Florida Power Development, LLC is hereby approved. It is further

[1]Order No. PSC-12-0425-PAA-EU, issued August 16, 2012, in Docket Nos. 120001-EI, *In re: Fuel and purchased power cost recovery clause with generating performance incentive factor*; 120002-EG, *In re: Energy conservation cost recovery clause;* and, 120007-EI, *In re: Environmental cost recovery clause*.

ORDERED that a regulatory asset is hereby established to be amortized over the remaining contract term through May 2034, and that the regulatory treatment specified in the Termination Agreement is hereby approved. It is further

ORDERED that the provisions of this Order, issued as proposed agency action, shall become final and effective upon the issuance of a Consummating Order unless an appropriate petition, in the form provided by Rule 28-106.201, Florida Administrative Code, is received by the Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings" attached hereto. It is further

ORDERED that in the event this Order becomes final, this docket shall be closed.

By ORDER of the Florida Public Service Commission this 8th day of May, 2018.

Carlotta S Stauffer

CARLOTTA S. STAUFFER
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399
(850) 413-6770
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Copies furnished: A copy of this document is provided to the parties of record at the time of issuance and, if applicable, interested persons.

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NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing that is available under Section 120.57, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This petition must be received by the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on May 29, 2018.

In the absence of such a petition, this order shall become final and effective upon the issuance of a Consummating Order.

Any objection or protest filed in this/these docket(s) before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.