

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for approval to terminate  
qualifying facility power purchase agreement  
with Ridge Generating Station, L.P., by Duke  
Energy Florida, LLC.

DOCKET NO. 20180152-EQ  
ORDER NO. PSC-2018-0532-PAA-EQ  
ISSUED: November 13, 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 RIDGE GENERATING STATION, L.P.

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.).

**Background**

On August 3, 2018, Duke Energy Florida, LLC (DEF or Company) filed a petition for approval of a Termination Agreement (Termination Agreement) and for approval of the regulatory treatment of the termination payment of \$34.5 million to Ridge Generating Station, L.P. (Ridge). DEF and Ridge entered into the Termination Agreement to terminate a power purchase agreement (PPA) between DEF and Ridge on August 1, 2018.

The PPA was approved by this Commission in 1991.<sup>1</sup> The Ridge facility, located in Auburndale, Florida, is a qualifying facility converting waste, such as scrap tires, into electric power. Since the facility came online in May 1994, DEF has been purchasing firm energy and capacity from Ridge pursuant to the PPA, with a 39.6 megawatt (MW) committed capacity expiring in December 2023.

DEF's proposed regulatory treatment is to establish a regulatory asset for the \$34.5 million termination payment that DEF will recover through the Capacity Cost Recovery Clause

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<sup>1</sup> Order No. 24734, issued July 1, 1991, in Docket No. 19910401-EQ, *In re: Petition for approval of contracts for purchase of firm capacity and energy by Florida Power Corporation.*

(Capacity Clause) by amortizing the regulatory asset through the expiration of the original PPA term. The Termination Agreement has a requirement that the transaction be approved by us as one of the conditions to be satisfied prior to the expected closing date of December 31, 2018.

On August 27, 2018, the Office of Public Counsel (OPC) filed a notice of intervention. Order No. PSC-2018-0436-PCO-EQ acknowledged the intervention by OPC on August 28, 2018.

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

## **Decision**

### **DEF's Proposal**

DEF is obligated to purchase firm energy and capacity from Ridge until the expiration of the PPA in December 2023. While the PPA was cost-effective based on the avoided generating unit at the time of approval, it is no longer cost-effective compared to the avoided costs under current and projected market conditions.

DEF negotiated a \$34.5 million payment to Ridge to terminate the PPA. Pursuant to the Termination Agreement, Ridge will terminate its qualifying facility status, permanently shut down the Ridge facility and terminate any interconnection agreements for the facility. By terminating the PPA without acquiring the facility, DEF believes its customers will benefit from lower projected fuel prices and avoid risks associated with the cleanup and dismantlement of the Ridge facility.

DEF argued that the \$34.5 million termination payment is a prudent investment that will result in a reduction of CO<sub>2</sub> emissions as well as economic benefits. Below is a summary of DEF's analysis of the economic benefits, followed by our review of key factors underlying the analysis, including the Ridge energy output scenarios, fuel forecasts, production cost comparison, and the regulatory treatment of the termination payment.

### **Summary of DEF's Analysis**

DEF witness Borsch assessed the economic impact of the Termination Agreement based on his Cumulative Present Value Revenue Requirement (CPVRR) analysis. This is conducted by comparing the revenue requirements under the current PPA structure to those under the Termination Agreement. The analysis is over the remaining five-year term from January 2019 through December 2023 based on the expected closing date of December 31, 2018.

Using the 2018 Ten-Year Site Plan fuel price forecast as the base case for fuel prices, DEF witness Borsch provided a demonstration of projected net benefits. The cost of the Termination Agreement was calculated based on the proposed regulatory treatment of the termination payment as a regulatory asset. The revenue requirements totaled \$41.3 million over

the five-year term, with a net present value (NPV) of \$34 million.<sup>2</sup> This cost is compared with the benefit of a lower production cost without the PPA, estimated to be between \$64 and \$69 million in NPV.<sup>3</sup> The benefit over cost is between \$30 and \$35 million of net savings in NPV.

In addition, DEF used a high fuel case scenario to test the sensitivity of the estimated savings to fuel prices. Estimated savings under this high fuel case scenario are between \$23 and \$27 million in NPV, demonstrating the robustness of the economic benefits of the Termination Agreement. DEF assigned no savings attributable to reduced CO<sub>2</sub> emissions. Therefore, no test for carbon pricing sensitivity is needed. The table below shows the estimated savings under the base case in comparison with those under the high fuel case for three energy output scenarios discussed below.

**Estimated Net DEF System Savings \$ Millions NPV (2019)**

	<b>Base Case Fuel</b>	<b>High Fuel</b>
Upper Energy Output Band (260 GWh)	35	27
Middle Energy Output Band (246 GWh)	34	25
Lower Energy Output Band (222 GWh)	30	23

### **Ridge Energy Output Scenarios**

DEF estimated the system impact to fuel cost for three energy output scenarios of the future energy output of the Ridge facility. The three energy output scenarios are based on review of Ridge's performance over the last 24 years with an emphasis on recent generation performance trends. In the lower band scenario, DEF assumed approximately 222 gigawatt hours (GWh) of annual output based on an average 64 percent capacity factor performance. In the middle band scenario, DEF assumed approximately 246 GWh of annual output, or 71 percent capacity factor. In the upper band scenario, DEF assumed approximately 260 GWh of annual output, or 75 percent capacity factor.

To evaluate whether these output assumptions are too high and may result in unrealistic estimated savings, we reviewed the underlying data for Ridge's capacity factor performance and payment under the PPA. That information appears to support Ridge's ability to meet the minimum requirement of a 12-month rolling average on-peak capacity factor of 85 percent for full capacity payment.<sup>4</sup> In comparison, DEF's energy output assumptions using an average capacity factor range between 64 percent and 75 percent are reasonable considering factors such as planned outages that reduce output. Based on our review, we find that this data set supports DEF's energy output assumptions.

<sup>2</sup> Exhibit BMHB-3, pp. 1-3, Row E, direct testimony of DEF witness Borsch.

<sup>3</sup> Exhibit BMHB-3, pp. 1-3, Row H, direct testimony of DEF witness Borsch.

<sup>4</sup> Document No. 05683-2018, DEF's response to Staff's Second Data Request, No. 4.

## **Production Cost Comparison**

As discussed earlier, DEF's estimated savings due to a lower production cost without the PPA are between \$64 and \$69 million in NPV, depending on the energy output. These lower production costs can be attributed to the PPA energy and capacity payment that can be avoided after terminating the PPA.

Pursuant to the Ridge PPA, the energy payment rate is currently based on the delivered price of coal to DEF's Crystal River Units 1 and 2 until those units are retired later this year; then, the energy payment rate is based on a coal price proxy index and a 1991 avoided coal unit variable operation and maintenance charge. Under the forecasted base fuel price scenario, we find that the PPA energy payment is unfavorable to DEF and its customers, compared with DEF's energy production cost without the PPA. We further find that the energy savings without the PPA are estimated to be between \$25 million to \$30 million in NPV, depending on the energy output.<sup>5</sup>

In addition, we reviewed the data underlying DEF's assumption for full capacity payment of \$9.6 million per year. The 12-month rolling average on-peak capacity factor used to set the monthly capacity payment showed an improving performance in 2017 and 2018. The performance has exceeded the minimum requirement of 85 percent for full capacity payment since March 2018.<sup>6</sup> Based on our review, we find that DEF's assumption for full capacity payment is reasonable. The avoided capacity payment totals \$48.1 million over the five-year term, with a NPV of approximately \$39 million. Adding this to the \$25 million to \$30 million in energy savings, the total estimated production cost savings are between \$64 and \$69 million in NPV.

## **Fuel Forecast**

DEF's CPVRR evaluations included assumptions related to forecasted fuel prices. However, since the remaining term of DEF's contract with Ridge is relatively limited, running through December 2023, much of the information used to value future fuel costs is observable. Specifically, DEF relied primarily on New York Mercantile Exchange contract pricing to prepare its short term natural gas and oil price forecasts appearing in its base case fuel price scenario. Similarly, DEF relied upon its existing coal contracts to project its coal prices for the early years of its base case fuel price scenario. Further, DEF performed a high (price) case sensitivity analysis around its base forecast. The high case sensitivity analysis reflects forecasted fuel prices approximately 33 percent greater than the base case forecast. DEF stated it did not perform a low case fuel price sensitivity because both base and high case forecasted price levels resulted in positive customer savings, and because a low case fuel price sensitivity would only increase the customer savings.

We consider the relevant forecast period (2018-2023) to be on the shorter end of forecast durations that we are generally tasked with reviewing. Typically, a shorter forecast period will

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<sup>5</sup> Exhibit BMHB-3, p. 1, Row F, direct testimony of DEF witness Borsch.

<sup>6</sup> Document No. 05683-2018, DEF's response to Staff's Second Data Request, No. 4.

result in a greater degree of reliability concerning accuracy. In addition, much of the near-term pricing is based on actual executed contracts. For these reasons, we hereby find that the forecasted fuel prices used in DEF's economic evaluations of the Termination Agreement are reasonable.

### **Reliability Impact (Reserve Margin)**

If the loss of the Ridge capacity causes a need to replace the capacity or accelerate any generating units, then the cost to replace the Ridge capacity must be evaluated. DEF argued that the 39.6 MW capacity from Ridge is not a material contributor to DEF's reliability reserve margin. In response to our staff's First Data Request, DEF provided an update of its Ten-Year Site Plan schedules for reliability reserve margin. The updated schedules reflect both the termination of the Ridge capacity and the capacity from the termination of the Florida Power Development, LLC (FPD) contract approved by us in May 2018.<sup>7</sup> The impact of the loss of the Ridge capacity is less than 1 percent, resulting in a projected range of summer reserve margin during 2019-2023 that is still 8 to 11 percent above the 20 percent reserve margin approved by us. Based on our review, the provided information supports a finding that reliability considerations will not cause a need to replace the Ridge capacity or accelerate any generating units.

### **Regulatory Asset Treatment**

We have reviewed DEF's proposed regulatory treatment to establish a regulatory asset for the \$34.5 million termination payment and to amortize it over the remaining five-year term for recovery through December 2023. The regulatory asset treatment is consistent with our decision on a similar regulatory treatment for the termination of the FPD contract in Order No. PSC-2018-0240-PAA-EQ.<sup>8</sup> We have calculated the revenue requirement based on the projected capital structure provided by DEF. Based on DEF's projected capital structure and rate of return, we find that no adjustments shall be made to the proposed revenue requirement for the regulatory asset.

### **Conclusion**

Based on our review, the Termination Agreement is expected to save DEF and its customers between \$30 and \$35 million in NPV and shall be approved. Recovery of the termination payment as a regulatory asset through the Capacity Clause shall also be approved.

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<sup>7</sup> Order No. PSC-2018-0240-PAA-EQ, issued May 8, 2018, in Docket No. 20170274-EQ, *In re: Petition for approval to terminate qualifying facility power purchase agreement with Florida Power Development, LLC, by Duke Energy Florida, LLC.*

<sup>8</sup> *Id.*

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that Duke Energy Florida, LLC's Termination Agreement with Ridge Generating Station, L.P. is hereby approved. It is further

ORDERED that recovery of the termination payment as a regulatory asset through the Capacity Cost Recovery Clause, as set forth above, 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 this docket shall be closed upon issuance of a Consummating Order unless a person whose substantial interests are affected by this Commission's decision files a protest within 21 days of the issuance of the proposed agency action.

By ORDER of the Florida Public Service Commission this 13th day of November, 2018.



CARLOTTA S. STAUFFER  
Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399  
(850) 413-6770  
www.floridapsc.com

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 December 4, 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.