FILED MAY 22, 2014
DOCUMENT NO. 02436-14
FPSC - COMMISSION CLERK

State of Florida

Public Service Commission

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TALLAHASSEE, FLORIDA 32399-0850

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

DATE: May 22, 2014

TO: Office of Commission Clerk (Stauffer)

FROM: Division of Accounting and Finance (Barrett, Lester, Mouring)
Division of Engineering (Matthews)
Office of the General Counsel (Barrera)

RE: Docket No. 140032-EI – Petition to recover capital costs of Big Bend fuel cost reduction project through the fuel cost recovery clause, by Tampa Electric Company.

AGENDA: 06/05/14 – Regular Agenda – Proposed Agency Action – Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Brown

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

Case Background

On February 11, 2014, Tampa Electric Company (Tampa Electric or Company) filed a petition to implement a fuel conversion project at the Big Bend Power Station for Units 1 through 4. The Company asserts that this fuel conversion project is similar in many ways to the fuel conversion project the Commission approved in 2012. By Order No. PSC-12-0498-PAA-EI (Polk Order),[1] the Commission approved a fuel conversion project at the Polk Power Station Unit One.

[1] See Order No. PSC-12-0498-PAA-EI, issued September 27, 2012, in Docket No. 120153-EI, In re: Petition to Recover Capital Cost of Polk Fuel Cost Reduction Project through the Fuel Cost Recovery Clause, by Tampa Electric Company. Order No. PSC-12-0563-CO-EI, Consummating Order, was issued October 22, 2012.

Big Bend Units 1 through 4 are pulverized coal steam units that currently use distillate oil[2] for start-ups and for flame stabilization. The Company seeks to use natural gas in place of distillate oil, and claims the fuel conversion will benefit the general body of retail customers by reducing the input cost of fossil fuel used at the Big Bend Power Station. Tampa Electric seeks to recover the capital expenditures for this project through the Fuel Cost Recovery Clause (Fuel Clause).

At a noticed meeting on February 24, 2014, staff met with Tampa Electric and interested parties to ask questions about the Company's fuel conversion proposal, forecasting assumptions, fuel cost estimates, and related topics. At the meeting, Tampa Electric stated that project costs are estimated to be $19.9 million for the fuel conversion work, and discussed the unit-by-unit schedule that is designed to take advantage of currently-planned major outages in 2015.

According to the amortization schedule attached to the Petition, the Company estimates the upgrades at the Big Bend Power Station will result in net fuel savings to customers of approximately $30 million through 2020 (the requested five-year cost recovery period), and additional savings thereafter for the remaining life of the four units.

Staff's recommendation addresses the project's eligibility for cost recovery through the Fuel Clause. The Commission has jurisdiction over this subject matter pursuant to the provisions of Sections 366.04, 366.05, and 366.06, Florida Statutes (F.S.).

[2] Distillate oil is also called "Number 2" oil, and trades on the New York Mercantile Exchange (NYMEX) as "Heating Oil."

Discussion of Issues

Issue 1: Should the Commission approve Tampa Electric's Petition to recover the capital investment of its proposed fuel conversion project at the Big Bend Power Station through the Fuel Clause?

Recommendation: Yes. Tampa Electric's Petition to recover the capital investment of its proposed fuel conversion project at the Big Bend Power Station through the Fuel Clause should be granted, with the following conditions:

Tampa Electric should be permitted to recover the projected conversion costs through the Fuel Clause beginning on the date the first unit (Big Bend Unit 3) is placed into service, and ending five years after the fourth and final unit (Big Bend Unit 1) is placed into service. Tampa Electric should amortize the Big Bend Power Station fuel conversion costs over a five-year period. Cost recovery should be limited to actual fuel savings, and the Company should use the actual weighted average cost of capital in its most current earnings surveillance report. Finally, if actual fuel savings during the annual period are less than the amortization of the conversion costs, Tampa Electric should limit cost recovery to actual fuel savings and defer recovery of the difference to future periods through the Fuel Clause. (Barrett, Lester, Mouring, Matthews)

Staff Analysis:

Similarity to Prior Case (Docket No. 120153-EI)

In January 2012, the Company undertook a similar project at the Polk Power Station for Unit One. At Polk Unit One, the conversion project modified the plant to use natural gas as a backup fuel, displacing distillate oil and propane. Tampa Electric undertook that project because it studied the prices of these fuels compared to the price of natural gas, and noted the opportunity for fuel savings. In its pleadings and responses to data requests, Tampa Electric projected annual savings for the years 2013 through 2018, and claimed the net fuel savings will be even greater after the amortization and return costs are fully recovered.

In the Polk Order, the Commission approved that fuel conversion project with a five-year amortization schedule, which began on the in-service date of the unit (May 2013). In the Polk Order, the Commission acknowledged that if markets were to change substantially during the five-year recovery period, or plant performance fell short of expectations, the fuel savings projections would be affected. In summary, the Commission found that:

> TECO shall be permitted to recover the projected conversion costs through the Fuel Clause beginning on the date the unit is placed into service, limiting the cost recovery to actual fuel savings. TECO shall amortize the Polk Unit One conversion over the next five years. TECO shall use the actual weighted average cost of capital in TECO's most current May earning surveillance reports. Finally, if actual fuel savings during the annual period are less than the amortization and return costs, TECO shall limit cost recovery to actual fuel savings and defer recovery of the difference to future periods through the Fuel Clause.

Eligibility for Fuel Clause Recovery of Capital Costs

The Fuel Clause is a regulatory tool designed to pass through to utility customers the costs associated with fuel purchases. The purpose is to minimize regulatory lag, which occurs when a utility incurs expenses, but is not allowed to collect offsetting revenues until the regulatory body approves cost recovery.

In Order No. 14546,[3] the Commission recognized that cost recovery through the Fuel Clause should include some flexibility to permit recovery of fossil fuel-related costs normally recovered through base rates but which were not recognized or anticipated in the cost levels used to determine current base rates and which, if expended, would result in fuel savings to customers. Cost recovery should be considered on a case-by-case basis after Commission approval.

Subsequent to the issuance of Order No. 14546, the Commission reviewed numerous requests for recovery of capital costs through the Fuel Clause. Most recently, by Order No. PSC-11-0080-PAA-EI,[4] the Commission examined the criteria for recovery of capital costs through the Fuel Clause, and, consistent with prior Commission decisions, found:

> . . . [C]apital projects eligible for cost recovery through the Fuel Clause should produce fuel savings based on lowering the delivered price of fossil fuel, or otherwise result in burning lower priced fuel at the plant.[5]

Tampa Electric referenced Order No. PSC-11-0080-PAA-EI, as well as the Polk Order to support its contention that this project is eligible for cost recovery through the Fuel Clause. The Company states that conversion work at Big Bend Station as described in its Petition will produce fuel savings by burning lower priced fuel for Units 1-4 at the station.

Instant Petition

In its Petition, the Company states that distillate oil is currently used at the Big Bend Station for Big Bend Units 1-4 for unit start-ups and for flame stabilization. Tampa Electric states that this project came about because it studied the price of distillate oil compared to the price of natural gas into the foreseeable future, and noted the opportunity for fuel savings. Tampa Electric concluded that natural gas could be used for unit start-ups and flame stabilization instead of distillate oil, and that by reducing the input cost of fossil fuel at the Big Bend Station, the general body of retail customers would directly benefit.

[3] See Order No. 14546, issued July 8, 1985, in Docket No. 850001-EI-B, In re: Fuel and Purchased Power Cost Recovery Clause with Generating Performance Incentive Factor.
[4] See Order No. PSC-11-0080-PAA-EI, issued January 31, 2011, in Docket No. 100404-EI, In re: Petition by Florida Power & Light Company to recover Scherer Unit 4 Turbine Upgrade costs through environmental cost recovery clause or fuel cost recovery clause. Although the Commission denied fuel cost recovery for the turbine upgrade project, this order describes the criteria required for prospective fuel cost recovery eligibility.
[5] Id., page 9.

According to the Company's response to Data Request No. 3, valve station and header pipeline work to the individual units could be done while the units are operating. The balance of the project activities at Big Bend Units 1-4 would be performed at staggered intervals during normal planned outages in 2015. The planned sequence of the conversion work, and projected in-service dates are shown below in Table 1-1:

Table 1-1
Planned Sequence of Fuel Conversion Project
at the Big Bend Station and Projected In-service Dates

Unit	Anticipated Completion Dates of Conversion Work
Big Bend Unit 3	February 2015
Big Bend Unit 4	April 2015
Big Bend Unit 2	May 2015
Big Bend Unit 1	November 2015

With the staggered in-service dates and a five-year amortization schedule, Tampa Electric projects total fuel savings of over $30 million (net present value) and a net Ratepayer Benefit of $5.7 million through 2020. The Company's fuel savings calculations exceed $76 million when the respective retirement dates for all four units are considered.[6] In the event that the fuel savings benefits do not exceed the costs for a particular period, Tampa Electric proposes to defer the project cost recovery to a subsequent period.

According to the Petition, the Polk Order was approved for Fuel Clause recovery because the Commission found that fuel savings would result by burning a lower priced fossil fuel at the Polk station. In addition, the Petition cites other instances when the Commission allowed utilities to recover the fuel conversion projects, provided the fuel savings during an annual period exceed the amortization and return costs.[7]

Staff's Analysis of Cost Recovery and Fuel Savings Projections

Staff believes that Tampa Electric should be permitted to recover the conversion project costs through the Fuel Clause because it appears the project will produce fuel savings by burning a lower priced fossil fuel at the Big Bend Station. In the Company's response to Data Request No. 10, the Company estimated the bill impact through the anticipated cost recovery period on a residential customer using 1,000 kilowatt hours of electricity, as shown in Table 1-2 below:

[6] The planned retirement dates of the Big Bend units range from 2035 to 2050. The planned retirement date for Big Bend Unit 1 is in the year 2035; the planned retirement date for Big Bend Unit 2 is in the year 2038; the planned retirement date for Big Bend Unit 3 is in the year 2041; and the planned retirement date for Big Bend Unit 4 is in the year 2050.

[7] See Order Nos. PSC-95-1089-FOF-EI, issued September 5, 1995, in Docket No. 950001-EI, In re: Fuel Cost Recovery; PSC-96-0353-FOF-EI, issued March 13, 1996, in Docket No. 960001-EI, In re: Fuel Cost Recovery; and PSC-97-1045-FOF-EI, issued September 5, 1997, in Docket No. 970001-EI, In re: Fuel Cost Recovery.

Table 1-2 Estimated Bill Impact for a 1,000 kWh Residential Customer	
Year	Bill Impact ($/1,000 kWh)
2014	Not Applicable
2015	(0.01)
2016	0.00
2017	0.00
2018	(0.02)
2019	(0.03)
2020	(0.23)

Tampa Electric provided an estimate that shows the amortization expense and capital cost of the conversion will be approximately $24.7 million. The Company estimates that the proposed conversion from distillate oil to natural gas will benefit ratepayers because the fuel savings exceed the amortization and return on investment costs during the five-year recovery period. Table 1-3 below summarizes the results of the Company's economic analysis over the five-year recovery period:

Table 1-3 Big Bend Units 1-4 Fuel Conversion Schedule of Amortization and Return For the Period 2015-2020					
Year[8]	Annual Amortization ($000)	Return On Investment (ROI) ($000)	Total Cost of Project ($000)	Projected Fuel Savings ($000)	Ratepayer Benefit (Cost) ($000)
	(a)	(b)	(c) (c) = (a) + (b)	(d)	(e) (e) = (d) - (c)
2015	2,271	1,075	3,346	3,472	126
2016	3,816	1,474	5,290	5,290	0
2017	3,409	1,117	4,526	4,526	0
2018	4,697	748	5,445	5,803	359
2019	3,974	348	4,322	4,854	532
2020	1,703	48	1,751	6,505	4,754
Total	19,870	4,809	24,679	30,450	5,771

In a noticed meeting, staff met with Tampa Electric and interested parties on February 24, 2014, and sent data requests to better understand the Company's forecasting assumptions, fuel cost estimates, as well as the Company's environmental and economic analyses. As noted previously, pulverized coal is the primary fuel for Big Bend Units 1-4, and although this project has no impact on the primary fuel, all 4 units will have natural gas as a back-up fuel when the project is completed. Tampa Electric states that oil piping and regulating equipment that is on or

[8] Because the projected in-service dates occur in different months of 2015, the 5-year recovery period covers partial years for 2015 and 2020. The partial year recovery amounts in the first and last years of the recovery period will be accounted for in the following year's Fuel Clause True-Up.

near all 4 of the boilers at Big Bend units 1-4 will be removed[9] and replaced with new natural gas piping, fixtures, and regulators that will tie in to an existing 12-inch gas main. To mitigate any natural gas pipeline disruption, the construction plans include connections at the Big Bend Station that will accommodate natural gas delivery by tanker truck. Post-conversion, the project will provide a marginal environmental benefit. While natural gas is a cleaner burning fuel than distillate oil, the start-up activities and flame stabilization are only small components of the fuel burned during normal operations of the Big Bend units 1-4. In addition, Tampa Electric stated that its need for oil inventory and storage at the Big Bend Station would be greatly reduced. Although not finalized, the Company is considering decommissioning the 4.2 million gallon Main Fuel Oil Tank at Big Bend Station.

Tampa Electric provided information on its fuel price forecasts for natural gas and distillate oil. For forecasted natural gas prices, the Company used the same data it prepared for its 2014 projection filings in the Fuel Clause docket (Docket No. 130001-EI).[10] The Company's method for calculating fuel savings was determined by multiplying the amount of the replaced fuel, on a MMBtu basis, by the $/MMBtu cost difference (when compared to natural gas).[11] Staff reviewed Tampa Electric's fuel price forecast data and the forecasting methodology. Staff analyzed this data and the assumptions that were incorporated into the proposed conversion project and believes the Company's methodology for calculating fuel savings, as well as its fuel forecasts, are reasonable.

In the Polk Order, the Commission noted the concern that performance variables at the unit could impact fuel savings and, ultimately, the amount of recoverable costs of the project. For the instant case, staff addressed this concern by asking the Company if any of the performance characteristics (heat rate, production, planned dispatch, or any other performance-related metrics) at Big Bend Units 1-4 would change as a result of the fuel conversion project. According to Tampa Electric, no performance-related changes are anticipated, although the Company reported that relying on natural gas for start-ups and flame stabilization may produce an operating benefit that is not readily quantifiable.[12]

[9] In response to Data Request No. 16, the Company stated that the salvage value of any of the retired materials was not addressed in its cost recovery projections, because its estimated salvage value is $1,000 per unit, and removal costs are likely to exceed that value.

[10] Tampa Electric's projections for 2014 in the Fuel Clause used NYMEX natural gas futures contract closing prices from early-August, 2013. In its Response to Data Request No. 1, Tampa Electric stated that its forward curve for natural gas is escalated "at the same escalation for natural gas commodity contained in the Energy Information Administration's Long-Term Energy Outlook."

[11] In response to Data Request No. 29 about the Company's current fuel forecast, the Company states that in the current forecast, distillate oil is nearly five times the cost of natural gas.

[12] In response to Data Request No. 6, the Company claims that natural gas igniters should provide more uniform heating of the boiler during start-up. More uniform heating of the boiler should provide a reliability enhancement when burning wet coal. In addition, maintenance activities to address oil-fouled igniter tips will no longer be required.

Conclusion

Staff recommends Tampa Electric's Petition to recover the capital investment of its proposed fuel conversion project at the Big Bend Power Station through the Fuel Clause be granted, with the following conditions: The Company should be permitted to recover the projected conversion costs through the Fuel Clause beginning on the date each respective unit is placed into service, limiting the cost recovery to actual fuel savings. Tampa Electric should amortize the Big Bend Power Station fuel conversion costs over the five-year period. The Company should use the actual weighted average cost of capital in its most current earning surveillance report to calculate the revenue requirement. Finally, if actual fuel savings during the annual period are less than the amortization and return costs, the Company should limit cost recovery to actual fuel savings and defer recovery of the difference to future periods through the Fuel Clause.

Issue 2: Should this docket be closed?

Recommendation: Yes. If no person whose interests are substantially affected files a timely protest of the Commission's Proposed Agency Action, this docket may be closed upon issuance of a Consummating Order. (Barrera)

Staff Analysis: If no person whose interests are substantially affected files a timely protest of the Commission's Proposed Agency Action, this docket may be closed upon issuance of a Consummating Order.