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: September 21, 2017

TO: Office of Commission Clerk (Stauffer)

FROM: Division of Economics (Wu, McNulty) JW WBM JDH GS
Office of the General Counsel (DuVal) MD JSC

RE: Docket No. 20170143-EI – Petition for approval of depreciation rates for Polk 2 combined cycle generating units, by Tampa Electric Company.

AGENDA: 10/03/17 – Regular Agenda – Proposed Agency Action – Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Graham

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

Case Background

On June 16, 2017, Tampa Electric Company (TECO or the company) petitioned the Florida Public Service Commission (Commission) for approval to establish depreciation rates for its Polk 2 combined cycle generating units (Polk 2 CC) and associated equipment. Pursuant to Rule 25-6.0436(3)(a), Florida Administrative Code (F.A.C.), electric utilities are required to maintain depreciation rates and accumulated depreciation reserves in accounts or subaccounts as prescribed in Rule 25-6.014(1), F.A.C. Rule 25-6.0436(3)(b), F.A.C., provides that "[u]pon establishing a new account or subaccount classification, each utility shall request Commission approval of a depreciation rate for the new plant category." Staff is not aware of any public comments or concerns on this matter. The Commission has jurisdiction in this matter pursuant to Sections 366.04, 366.05, and 366.06, Florida Statutes (F.S.).

Discussion of Issues

Issue 1: Should the Commission approve TECO's proposed depreciation rate for the new assets of the company's Polk 2 CC and associated equipment?

Recommendation: Yes. Staff recommends that the Commission approve a 35-year average service life and a whole life depreciation rate of 2.9 percent, for the new assets of TECO's Polk 2 CC and associated equipment, applied to five subaccounts detailed in the body of Staff Analysis. (Wu, McNulty)

Staff Analysis: TECO seeks approval of a proposed 2.9 percent interim depreciation rate for the new assets of its Polk 2 CC and associated equipment. Polk 2 CC went into service in January 2017 with a generating maximum nameplate capacity of 513 megawatts (MW) and a net capacity for summer and winter of 461 MW and 480 MW, respectively.[1]

Typically, a combined cycle (CC) generating station consists of one or more combustion turbines (CT), each with a heat recovery steam generator (HRSG). Steam produced by each HRSG is used to drive a steam turbine (ST). The ST and each CT have an electrical generator that produces electricity. Polk 2 CC is composed of four CTs, which are existing assets of the company, and four HRSGs and one ST, which are all new assets. TECO's requested depreciation rate is limited to the new technology related to the HRSG and ST assets only. This is because Polk 2 CTs are existing assets with approved depreciation rates, and TECO's approved 2013 rate case settlement stipulates that the company is not required to file a depreciation study until shortly before the filing of its next base rate case.[2] In response to a staff data request, TECO indicated that during its next depreciation study the company will analyze all assets of Polk 2 CC (CTs, HRSGs, and ST), and re-evaluate the useful remaining life for all assets combined.[3]

In its petition in this docket, TECO categorized the Polk 2 CC into four subaccounts. In its response to a staff data request, the company further requested to include one more subaccount (Miscellaneous Power Plant Equipment) in its petition for approval of the depreciation rates.[4] Thus, TECO seeks approval of the depreciation rates for the following five subaccounts:

341.xx Structures and Improvements

342.xx Fuel Holders, Producers and Accessories

343.xx Prime Movers

345.xx Accessory Electric Equipment

346.xx Miscellaneous Power Plant Equipment

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[1] TECO's response to Staff's First Data Request, No. 1.
[2] Order No. PSC-13-0443-FOF-EI, issued September 30, 2013, in Docket No. 130040-EI, *In re: Petition for rate increase by Tampa Electric Company*, Exhibit A, Stipulation and Settlement Agreement, paragraph 8.
[3] TECO's response to Staff's First Data Request, No. 3.
[4] TECO's response to Staff's First Data Request, No. 4.(f).

TECO is requesting an interim 35-year average service life, or a whole life depreciation rate of 2.9 percent, for all of the above five subaccounts.

In determining its proposed interim service life for Polk 2 CC, TECO evaluated similar assets – the company's Bayside 1 and 2 CC generating units. Bayside CCs were placed into service in 2003-2004, based on a composition of existing and new assets like Polk CC as shown in Table 1-1. For both Bayside CC generating units, an interim starter rate of 4.3 percent was used across all accounts during their early service period of 2003-2006.[5] In its 2007 Depreciation Study, TECO evaluated and established final unitization and retirement unit classification for Bayside 1 and 2 CC generating units. The company performed a detailed analysis and proposed subaccount-specific depreciation rates based on adequate data available at that time.

Regarding the Polk 2 CC, TECO believes that a 35-year service life is appropriate for establishing the starter depreciation rate. The company explained that the requested interim rate for Polk 2 CC differs from Bayside 1 and 2 CC generating units' starter rate due to the differences in the asset mix as well as the new technology deployed in Polk 2 CC. TECO confirmed that during its next depreciation study, when the assets are evaluated completely, the new technology-based assets and the existing technology-based assets are expected to produce a composite rate more similar to the rate applied to the Bayside CT assets.[6]

Table 1-1
Illustration of the configurations of TECO's CC generating units

Bayside 1 CC Conversion (3 CTs into 1 ST)			Bayside 2 CC Conversion (4 CTs into 1 ST)				Polk 2 CC Conversion (4 CTs into 1 ST)			
CT A New	CT B New	CT C New	CT A New	CT B New	CT C New	CT D New	CT #2 Existing	CT #3 Existing	CT #4 Existing	CT #5 Existing
HRSG New	HRSG New	HRSG New	HRSG New	HRSG New	HRSG New	HRSG New	HRSG New	HRSG New	HRSG New	HRSG New
ST Existing			ST Existing				ST New			

Source: TECO's response to Staff's First Data Request, No. 2.

Conclusion

Staff believes that TECO's depreciation rate request is based on information available at this stage of generating unit operation and is consistent with the previous Commission practice. Therefore, staff recommends that a 35-year average service life and a whole life depreciation rate of 2.9 percent is appropriate at this time for the new assets of TECO's Polk 2 CC and associated equipment, applied to each of the related subaccounts discussed in the staff analysis.

[5] The interim depreciation rate was proposed and requested by the company, and approved by the Commission by Order No. PSC-04-0815-PAA-EI, issued August 20, 2004, in Docket No. 030409-EI, *In re: Petition for approval of 2003 depreciation study by Tampa Electric Company*. Also see, TECO's response to Staff's First Data Request, Nos. 3. and 4.(c).
[6] TECO's response to Staff's First Data Request, Nos. 3. and 4.(e).

Issue 2: What should be the effective date for the implementation of the new depreciation rate for TECO's Polk 2 CC and associated equipment?

Recommendation: Staff recommends the Commission approve an effective date of February 1, 2017, for the implementation of the new depreciation rate for TECO's Polk 2 CC and associated equipment. (Wu)

Staff Analysis: Depreciation is the recovery of invested capital representing equipment that is providing service to the public. This recovery is designed to take place over the related period of service to the public, which begins with the equipment's in-service date. Polk 2 CC went into service in mid-January 2017. In its petition, TECO requests the Commission to approve the new depreciation rate effective February 1, 2017, which is the first full month that depreciation expense of the assets will be calculated. Staff believes an effective date of February 1, 2017, for the implementation of the depreciation rate for the Polk 2 CC and associated equipment is appropriate.

Issue 3: Should this docket be closed?

Recommendation: If no person whose substantial interests are affected by the proposed agency action files a protest within 21 days of the issuance of the order, this docket should be closed upon the issuance of a consummating order. (DuVal)

Staff Analysis: At the conclusion of the protest period, if no protest is filed, this docket should be closed upon the issuance of a consummating order.