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 26, 2000

TO: DIRECTOR, DIVISION OF RECORDS AND REPORTING (BAYÓ)

FROM: DIVISION OF ECONOMIC REGULATION (P. LEE)
DIVISION OF LEGAL SERVICES (C. KEATING)
DIVISION OF SAFETY AND ELECTRIC RELIABILITY (COLSON)

RE: DOCKET NO. 000686-EI - REVISED DEPRECIATION STUDY FOR GANNON STATION BY TAMPA ELECTRIC COMPANY.

AGENDA: 11/07/00 - REGULAR AGENDA - PROPOSED AGENCY ACTION - INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: NONE

FILE NAME AND LOCATION: S:\PSC\ECR\WP\000686.RCM
R:\GANNON1.123

CASE BACKGROUND

On November 3, 1999, the United States Department of Justice, on behalf of the United States Environmental Protection Agency (EPA), filed a lawsuit against Tampa Electric Company (TECO or the Company) alleging TECO violated the Prevention of Significant Deterioration (PSD) requirements at Part C of the Clean Air Act, 42 U.S.C. §§ 7470-7492. The EPA alleged that TECO was required to obtain a PSD permit and apply best available control technology (BACT) before proceeding with various power plant modifications which TECO completed between 1991 and 1996. The power plant modifications in question were replacements of boiler equipment such as steam drum internals, high temperature reheater, water wall, cyclone, and furnace floor.

Subsequently, on December 7, 1999, the Florida Department of Environmental Protection (DEP) filed a lawsuit against TECO which mirrored the EPA lawsuit. Shortly after the DEP filed its lawsuit,

TECO and the DEP settled the suit by entering a Consent Final Judgment (CFJ). The CFJ became effective on December 16, 1999.

On February 29, 2000, TECO and the EPA signed a settlement agreement (Consent Decree). The Consent Decree was filed with the U.S. District Court in Tampa on February 29, 2000. The Consent Decree was entered October 5, 2000. Among other things, the Consent Decree and the CFJ require TECO to cease burning coal at the Gannon Station by year-end 2004 and repower some of the Gannon units with natural gas.

By Order Nos. PSC-00-0603-PAA-EI and PSC-00-0817-PAA-EI, issued March 29, 2000, and April 25, 2000, respectively, in Docket Nos. 990529-EI and 992014-EI, depreciation rates, recovery schedules, and the provision for dismantlement for TECO were revised. The rates and recovery schedule approved for the Gannon Station reflected TECO's preliminary assessment of compliance with the Consent Decree and the CFJ. The company's planning included the repowering of Gannon Units 3, 4, and 5. Once repowered, the original boilers of Units 1 through 5 and the station's coal handling system would be retired and the Gannon Station would be natural gas fueled with fuel oil capability. Additionally, TECO planned to place Units 1, 2, and 6 on reserve standby to be used as emergency capacity to provide the operating flexibility needed to ensure reliability and possible future conversion to burn natural gas.

On May 18, 2000, TECO filed a proposed revision for the recovery position at the Gannon Station. The revision is necessitated by changes in TECO's planning to repower Units 5 and 6 rather than Units 1, 2, and 5. Staff has completed its review and analysis of the company's study and presents its recommendation herein.

DISCUSSION OF ISSUES

ISSUE 1: Should the current recovery position of Tampa Electric Company's Gannon Station assets be revised?

RECOMMENDATION: Yes. Attachment A, pages 6 - 9, shows the staff recommended rates and recovery schedule expenses that reflect TECO's current planning to repower Gannon Units 5 and 6 rather than Units 3, 4, and 5. The revision results in an increase in annual depreciation expense of about $3 million. (P. LEE)

STAFF ANALYSIS: As part of TECO's last depreciation study, rates, recovery schedules, and the provision for dismantlement for the Gannon Station were predicated on the company's preliminary engineering assessments for compliance with the Consent Decree and the CFJ. This current study reflects TECO's subsequent engineering analyses which determined that repowering Gannon Unit 6 has more advantages than repowering Units 3 and 4. Unit 6 will require less valving and piping arrangements, and there will be a slightly more simplified steam pipe route for repowering. Additionally, the physical location of Unit 6 will simplify construction. At the completion of repowering Units 5 and 6, the total station capacity will increase from about 1,150 MW to 1,828 MW. Furthermore, TECO does not plan to maintain the boiler and related equipment at Units 3 and 4 for emergency purposes.

Also, according to the company, TECO does not plan to seek revenue recovery for the Gannon repowering through the Environmental Cost Recovery Clause (ECRC). Even though the requirements of the Consent Decree and the CFJ are environmentally driven, TECO projects the Gannon repowering will enhance its revenue stream.

Near-Term Retirements

The company has estimated the additional investment and reserve as of January 1, 2000, associated with the plant currently anticipated to be retired by December 31, 2004, as a result of the repowering of Unit 6 to be $44,656,351, and $23,180,288, respectively. This results in the total investment subject to retirement due to the repowering and the CFJ to be $332,343,139 with an associated reserve of $244,609,218. The company has proposed the current approved recovery schedule be adjusted to recover the revised net investment of $87,733,921 of the retiring assets to begin January 1, 2000, and conclude December 31, 2004, coinciding with the date coal will no longer be burned at Gannon

pursuant to the CFJ requirement. Staff recommends approval of the company proposed recovery schedule revision.

There is no change in the company forecast that approximately $7.5 million in additions will be made to the Gannon Station prior to repowering. These short-lived additions are needed to maintain the reliability of the system and to protect the safety of the employees at the site. The company proposes that these additions be recovered over the period the equipment will be serving the public; i.e., 2000 additions amortized over the 2000-2004 period, 2001 additions amortized over the 2001-2004 period, 2002 additions amortized over the 2002-2004 period, 2003 additions amortized over the 2003-2004 period, and the 2004 additions amortized during 2004.

To assure full recovery of the net investment and any short-lived additions subject to retirement by year-end 2004, the expense for each month should be obtained by dividing net plant of each unit for that month by the months remaining in the amortization period. Staff believes this will be flexible in reacting to recovery of retirement in the event of changes in estimates.

Remaining Assets

Attachment A, page 6, shows the company-proposed and staff-recommended depreciation factors for the assets now expected to remain in-service with the repowering of Unit 6. TECO has utilized its continuing property record system to develop stratified categories expected to have homogeneous life characteristics. The life of the account is then determined by compositing the life expectations of the various strata. This approach provides a more accurate determination of the required depreciation components than the historical approach of arriving at the pattern of interim retirement and life expectancy of the generating plant without identifying the contents or quantifying the varying life characteristics of the contained assets.

The recommended lives for Units 3, 4, and 6 recognize the repowering of Unit 6 rather than Units 3 and 4. The recommended life for Unit 6 assumes that repowering will extend the life of the station by about 40 years while various stratified asset categories will continue to experience a shorter life. The company's proposed life and salvage factors are within the range of reasonableness and acceptable to staff.

ISSUE 2: What should be the implementation date for revisions in the recovery of the Gannon Station?

RECOMMENDATION: Staff recommends approval of the company's proposed January 1, 2000, date of implementation for the new depreciation rates and recovery schedules for the Gannon Station. (P. LEE)

STAFF ANALYSIS: Company data and related calculations abut the January 1, 2000 date. This is the recommended date of implementation, being the earliest practicable date for utilizing the revised rates and recovery schedules. Staff therefore recommends approval of the company's proposed January 1, 2000 implementation date.

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. (C. KEATING)

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.

TAMPA ELECTRIC COMPANY
GANNON REPOWERING
COMPARISON OF RATES AND COMPONENTS

ACCOUNT	CURRENT AVERAGE REMAINING LIFE	CURRENT NET SALVAGE	CURRENT 01/01/2000 RESERVE	CURRENT REMAINING LIFE RATE	COMPANY PROPOSAL AVERAGE REMAINING LIFE	COMPANY PROPOSAL NET SALVAGE	COMPANY PROPOSAL 01/01/2000 RESERVE	COMPANY PROPOSAL REMAINING LIFE RATE	STAFF RECOMMENDED AVERAGE REMAINING LIFE	STAFF RECOMMENDED NET SALVAGE	STAFF RECOMMENDED 01/01/2000 RESERVE	STAFF RECOMMENDED REMAINING LIFE RATE
GANNON STATION												
- Common -												
311500 Structures	39.0	(5.0)	26.63	2.0	39.0	(5.0)	26.63	2.0	39.0	(5.0)	26.63	2.0
312500 Boiler Plant	42.0	(5.0)	30.02	1.8	42.0	(5.0)	30.02	1.8	42.0	(5.0)	30.02	1.8
314500 Turbogenerators	41.0	(3.0)	16.15	2.1	41.0	(3.0)	16.15	2.1	41.0	(3.0)	16.15	2.1
315500 Acces. Electric Equipment	26.0	(5.0)	33.30	2.8	26.0	(5.0)	33.30	2.8	26.0	(5.0)	33.30	2.8
316500 Miscellaneous	13.0	(19.0)	59.51	4.6	13.0	(19.0)	59.51	4.6	13.0	(19.0)	59.51	4.6
- Unit 1 -												
311510 Structures	7.2	(1.0)	84.75	2.3	7.2	(1.0)	84.75	2.3	7.2	(1.0)	84.75	2.3
314510 Turbogenerators	6.5	(1.0)	71.21	4.6	6.5	(1.0)	71.21	4.6	6.5	(1.0)	71.21	4.6
315510 Acces. Electric Equipment	5.8	(1.0)	77.65	4.0	5.8	(1.0)	77.65	4.0	5.8	(1.0)	77.65	4.0
316510 Miscellaneous	7.3	(1.0)	82.41	2.5	7.3	(1.0)	82.41	2.5	7.3	(1.0)	82.41	2.5
- Unit 2 -												
311520 Structures	8.4	(1.0)	63.94	4.4	8.4	(1.0)	63.94	4.4	8.4	(1.0)	63.94	4.4
314520 Turbogenerators	7.6	(1.0)	71.05	3.9	7.6	(1.0)	71.05	3.9	7.6	(1.0)	71.05	3.9
315520 Acces. Electric Equipment	7.3	(1.0)	72.78	3.9	7.3	(1.0)	72.78	3.9	7.3	(1.0)	72.78	3.9
316520 Miscellaneous	6.6	(2.0)	85.07	2.6	6.6	(2.0)	85.07	2.6	6.6	(2.0)	85.07	2.6
- Unit 3 -												
311530 Structures	37.0	(4.0)	48.57	1.5	11.1	(4.0)	48.57	5.0	11.1	(4.0)	48.57	5.0
314530 Turbogenerators	24.0	(6.0)	52.65	2.2	9.2	(6.0)	52.65	5.8	9.2	(6.0)	52.65	5.8
315530 Acces. Electric Equipment	16.6	(5.0)	60.97	2.7	8.8	(5.0)	60.97	5.0	8.8	(5.0)	60.97	5.0
316530 Miscellaneous	22.0	(8.0)	62.00	2.1	8.9	(8.0)	62.00	5.2	8.9	(8.0)	62.00	5.2
- Unit 4 -												
311540 Structures	33.0	(8.0)	47.81	1.8	14.2	(8.0)	47.81	4.2	14.2	(8.0)	47.81	4.2
314540 Turbogenerators	22.0	(6.0)	56.57	2.2	11.0	(6.0)	56.57	4.5	11.0	(6.0)	56.57	4.5
315540 Acces. Electric Equipment	15.1	(3.0)	56.52	3.1	11.6	(3.0)	56.52	4.0	11.6	(3.0)	56.52	4.0
316540 Miscellaneous	41.0	(6.0)	23.31	2.0	14.1	(6.0)	23.31	5.9	14.1	(6.0)	23.31	5.9
- Unit 5 -												
311550 Structures	40.0	(5.0)	22.42	2.1	40.0	(5.0)	22.42	2.1	40.0	(5.0)	22.42	2.1
312550 Boiler Plant	11.1	(32.0)	90.30	3.8	11.1	(32.0)	90.30	3.8	11.1	(32.0)	90.30	3.8
314550 Turbogenerators	28.0	(8.0)	40.38	2.4	28.0	(8.0)	40.38	2.4	28.0	(8.0)	40.38	2.4
315550 Acces. Electric Equipment	21.0	(5.0)	40.68	3.1	21.0	(5.0)	40.68	3.1	21.0	(5.0)	40.68	3.1
316550 Miscellaneous	30.0	(15.0)	36.72	2.6	30.0	(15.0)	36.72	2.6	30.0	(15.0)	36.72	2.6
- Unit 6 -												
311560 Structures	17.1	(1.0)	58.21	2.5	38.0	(5.0)	37.17	1.8	38.0	(5.0)	37.17	1.8
312560 Boiler Plant	15.8	(5.0)	42.47	4.0	40.0	(8.0)	39.48	1.7	40.0	(8.0)	39.48	1.7
314560 Turbogenerators	16.6	(2.0)	44.14	3.5	30.0	(10.0)	32.42	2.6	30.0	(10.0)	32.42	2.6
315560 Acces. Electric Equipment	13.3	(3.0)	51.85	3.8	34.0	(3.0)	34.19	2.0	34.0	(3.0)	34.19	2.0
316560 Miscellaneous	16.9	(2.0)	28.82	4.3	27.0	(16.0)	47.56	2.5	27.0	(16.0)	47.56	2.5

TAMPA ELECTRIC COMPANY
GANNON REPOWERING
COMPARISON OF RATES AND COMPONENTS

ACCOUNT		CURRENT				COMPANY PROPOSAL				STAFF RECOMMENDATION			
		AVERAGE REMAINING LIFE (YRS)	NET SALVAGE (%)	01/01/2000 RESERVE (%)	REMAINING LIFE RATE (%)	AVERAGE REMAINING LIFE (YRS)	NET SALVAGE (%)	01/01/2000 RESERVE (%)	REMAINING LIFE RATE (%)	AVERAGE REMAINING LIFE (YRS)	NET SALVAGE (%)	01/01/2000 RESERVE (%)	REMAINING LIFE RATE (%)
GANNON OBO													
	- Common -												
311700	Structures	45.0	(2.0)	29.21	1.6	45.0	(2.0)	29.21	1.6	45.0	(2.0)	29.21	1.6
312700	Boiler Plant	42.0	(5.0)	25.96	1.9	42.0	(5.0)	25.96	1.9	42.0	(5.0)	25.96	1.9
	- Unit 1 -												
311710	Structures	7.5	0.0	65.80	4.6	7.5	0.0	65.80	4.6	7.5	0.0	65.80	4.6
	- Unit 2 -												
311720	Structures	8.5	0.0	62.84	4.4	8.5	0.0	62.94	4.4	8.5	0.0	62.94	4.4
	- Unit 3 -												
311730	Structures	45.0	(2.0)	25.67	1.7	10.8	(2.0)	25.67	7.1	10.8	(2.0)	25.67	7.1
	- Unit 4 -												
311740	Structures	44.0	(2.0)	27.19	1.7	12.9	(2.0)	27.19	5.8	12.9	(2.0)	27.19	5.8

TAMPA ELECTRIC COMPANY
GANNON REPOWERING
COMPARISON OF EXPENSES

Attachment A
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ACCOUNT	1/1/2000 INVESTMENT	1/1/2000 RESERVE	CURRENT RATE (%)	CURRENT EXPENSES ($)	COMPANY PROPOSAL RATE (%)	COMPANY PROPOSAL EXPENSES ($)	COMPANY PROPOSAL CHANGE IN EXPENSES ($)	STAFF RECOMMENDED RATE (%)	STAFF RECOMMENDED EXPENSES ($)	STAFF RECOMMENDED CHANGE IN EXPENSES ($)
GANNON STATION										
Common										
311500 Structures	24,369,938	6,489,187	2.0	487,399	2.0	487,399	0	2.0	487,399	0
312500 Boiler Plant	1,296,355	389,117	1.8	23,334	1.8	23,334	0	1.8	23,334	0
314500 Turbogenerators	1,978,662	319,482	2.1	41,552	2.1	41,552	0	2.1	41,552	0
315500 Acces. Electric Equipment	2,491,525	829,669	2.8	69,763	2.8	69,763	0	2.8	69,763	0
316500 Miscellaneous	2,955,345	1,758,606	4.6	135,946	4.6	135,946	0	4.6	135,946	0
	33,091,825	9,786,061		757,994		757,994	0		757,994	0
Unit 1										
311510 Structures	715,569	606,466	2.3	16,458	2.3	16,458	0	2.3	16,458	0
314510 Turbogenerators	8,831,396	6,288,908	4.6	406,244	4.6	406,244	0	4.6	406,244	0
315510 Acces. Electric Equipment	1,111,090	862,770	4.0	44,444	4.0	44,444	0	4.0	44,444	0
316510 Miscellaneous	91,180	75,141	2.5	2,280	2.5	2,280	0	2.5	2,280	0
	10,749,235	7,833,285		469,426		469,426	0		469,426	0
Unit 2										
311520 Structures	1,355,647	866,781	4.4	59,648	4.4	59,648	0	4.4	59,648	0
314520 Turbogenerators	11,070,387	7,865,437	3.9	431,745	3.9	431,745	0	3.9	431,745	0
315520 Acces. Electric Equipment	828,669	603,089	3.9	32,318	3.9	32,318	0	3.9	32,318	0
316520 Miscellaneous	37,578	31,969	2.6	977	2.6	977	0	2.6	977	0
	13,292,281	9,367,276		524,688		524,688	0		524,688	0
Unit 3										
311530 Structures	777,295	377,510	1.5	11,659	5.0	38,865	27,206	5.0	38,865	27,206
314530 Turbogenerators	11,851,627	6,240,385	2.2	260,736	5.8	687,394	426,658	5.8	687,394	426,658
315530 Acces. Electric Equipment	1,123,838	685,183	2.7	30,344	5.0	56,192	25,848	5.0	56,192	25,848
316530 Miscellaneous	40,883	25,349	2.1	859	5.2	2,126	1,267	5.2	2,126	1,267
	13,793,643	7,328,427		303,598		784,577	480,979		784,577	480,979
Unit 4										
311540 Structures	495,430	236,870	1.8	8,918	4.2	20,808	11,890	4.2	20,808	11,890
314540 Turbogenerators	8,668,819	4,903,683	2.2	190,714	4.5	390,097	199,383	4.5	390,097	199,383
315540 Acces. Electric Equipment	986,581	557,601	3.1	30,584	4.0	39,463	8,879	4.0	39,463	8,879
316540 Miscellaneous	54,245	12,643	2.0	1,085	5.9	3,200	2,115	5.9	3,200	2,115
	10,205,075	5,710,797		231,301		453,568	222,267		453,568	222,267
Unit 5										
311550 Structures	2,529,549	567,169	2.1	53,121	2.1	53,121	0	2.1	53,121	0
312550 Boiler Plant	26,886	24,277	3.8	1,022	3.8	1,022	0	3.8	1,022	0
314550 Turbogenerators	12,622,806	5,096,900	2.4	302,947	2.4	302,947	0	2.4	302,947	0
315550 Acces. Electric Equipment	2,157,263	877,588	3.1	66,875	3.1	66,875	0	3.1	66,875	0
316550 Miscellaneous	182,812	67,127	2.6	4,753	2.6	4,753	0	2.6	4,753	0
	17,519,316	6,633,061		428,718		428,718	0		428,718	0
Unit 6										
311560 Structures	1,462,934	543,701	2.5 *	113,220	1.8	26,333	(86,887)	1.8	26,333	(86,887)
312560 Boiler Plant	502,748	198,502	4.0 *	1,486,178	1.7	8,547	(1,477,631)	1.7	8,547	(1,477,631)
314560 Turbogenerators	23,094,030	7,487,892	3.5 *	812,888	2.6	600,445	(212,443)	2.6	600,445	(212,443)
315560 Acces. Electric Equipment	2,200,199	752,353	3.8 *	249,077	2.0	44,004	(205,073)	2.0	44,004	(205,073)
316560 Miscellaneous	167,144	79,490	4.3 *	26,666	2.5	4,179	(22,487)	2.5	4,179	(22,487)
	27,427,055	9,061,938	*	2,688,029		683,508	(2,004,521)		683,508	(2,004,521)
Total Gannon	126,078,430	55,720,845		5,403,754		4,102,479	(1,301,275)		4,102,479	(1,301,275)

* Represents expenses resulting from initial planning.

TAMPA ELECTRIC COMPANY
GANNON REPOWERING
COMPARISON OF EXPENSES

ACCOUNT		1/1/2000 INVESTMENT	1/1/2000 RESERVE	CURRENT RATE (%)	CURRENT EXPENSES ($)	COMPANY PROPOSAL RATE (%)	COMPANY PROPOSAL EXPENSES ($)	COMPANY PROPOSAL CHANGE IN EXPENSES ($)	STAFF RECOMMENDED RATE (%)	STAFF RECOMMENDED EXPENSES ($)	STAFF RECOMMENDED CHANGE IN EXPENSES ($)
GANNON OBO											
	- Common -										
311700	Structures	3,239,837	946,357	1.6	51,837	1.6	51,837	0	1.6	51,837	0
312700	Boiler Plant	588,209	152,677	1.9	11,176	1.9	11,176	0	1.9	11,176	0
		3,828,046	1,099,034		63,013		63,013	0		63,013	0
	- Unit 1 -										
311710	Structures	147,926	97,335	4.6	6,805	4.6	6,805	0	4.6	6,805	0
	- Unit 2 -										
311720	Structures	167,460	105,393	4.4	7,368	4.4	7,368	0	4.4	7,368	0
	- Unit 3 -										
311730	Structures	279,846	71,839	1.7	4,757	7.1	19,869	15,112	7.1	19,869	15,112
	- Unit 4 -										
311740	Structures	369,131	100,369	1.7	6,275	5.8	21,410	15,134	5.8	21,410	15,134
	Total Gannon OBO	4,792,409	1,473,970		88,219		118,465	30,246		118,465	30,246
TOTAL GANNON STATION REMAINING ASSETS		130,870,839	57,194,815		5,491,973		4,220,944	(1,271,029)		4,220,944	(1,271,029)
RECOVERY SCHEDULE RETIREMENTS		332,343,139	244,609,218	5-Yr. Recov.	13,874,690	5-Yr. Recov.	18,169,902	4,295,212	5-Yr. Recov.	18,169,902	4,295,212
TOTAL GANNON REPOWERING		463,213,978	301,804,033		19,366,663		22,390,846	3,024,183		22,390,846	3,024,183