FLORIDA PUBLIC SERVICE COMMISSION
Capital Circle Office Center • 2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

MEMORANDUM

September 26, 1996

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

FROM: DIVISION OF AUDITING & FINANCIAL ANALYSIS (BASS, LEE, HICKS)
DIVISION OF ELECTRIC & GAS (COLSON)
DIVISION OF LEGAL SERVICES (V. JOHNSON)

RE: DOCKET NO. 960527 - FLORIDA POWER & LIGHT COMPANY - REQUEST FOR APPROVAL OF SITE SPECIFIC DEPRECIATION STUDIES

AGENDA: OCTOBER 8, 1996 - REGULAR AGENDA - PROPOSED AGENCY ACTION - INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: S:\PSC\AFA\WP\960527EI.RCM

DISCUSSION OF ISSUES

ISSUE 1: What are the appropriate depreciation rates for Florida Power & Light's (FPL or Company) investment relating to combined cycle units?

RECOMMENDATION: The appropriate depreciation rates for investment relating to the FPL combined cycle generating plants are listed on Attachment A, pages 7 - 9. These are the same rates approved for preliminary implementation in this docket at the Agenda conference held March 5, 1996. For information, the preliminary implementation resulted in an increase of approximately $20.4 million relating to depreciation expense, based on actual January 1, 1996 investments. The amortization of any related investment tax credit, or flowback of any deferred income tax credit, should be adjusted accordingly. (BASS, HICKS)

STAFF ANALYSIS: FPL operates combined cycle units for power generation at three sites: Fort Lauderdale, Martin and Putnam. As part of the initial filing in this docket, the Company requested preliminary implementation of its proposed rates for those units at January 1, 1996. Preliminary implementation was granted by Order No. PSC-96-0841-FOF-EI, issued July 1, 1996. Staff has completed the review of FPL's proposals and has found them to be reasonable.

Primarily, the Company requested the change in depreciation rates in response to two developments. First, FPL has completed the process of classifying plant in service to the retirement unit level for each location. Prior to the completion of this unitization project, the best available information was an estimate of investment by account, based on final construction reports obtained from contractors.

Second, expectations for both performance and life characteristics relating to the combined cycle installations are changing as a result of actual operating experience. These installations include some "leading edge" applications of technology. There is no "full life cycle" history for some of the equipment involved, which is to say that no similar installations have been in service long enough to establish expectations for performance or life patterns. Design improvements and retrofit solutions to problems are part of the routine operation.

Staff concludes that the Company proposed depreciation rates are a reasonable and conservative response to these developments, based on review of information currently available. The components shown on Attachment A are those proposed by FPL, including the book reserve percentage calculated to a single decimal place. Although it is staff's standard practice to use two decimal places for reserve percentage calculation, our review indicates that the proposed depreciation rates are reasonable and we recommend their acceptance. Following is a discussion of primary points of the review.

The unitization process includes physical verification of systems, as well as the reconciliation of indirect construction costs and overheads. This process supports a high level of confidence in the resulting account balances, which for some accounts differ significantly from the estimates previously available. The resulting records can provide a sound basis for assessment of future trends.

The actual operation of the FPL combustion turbines and heat recovery steam generators have revealed advantages and disadvantages, compared to design projections. Three noteworthy situations have evolved from operating experience. First, the units have operated at higher capacity and lower heat rate than was expected. Using state-of-the-art design and materials, working temperatures in excess of 2300 degrees F have allowed for the attainment of a net heat rate in the range of 7,100 BTU/KWH.

These achievements have come at a price, as documented by other aspects of the operation. In the second situation, problems developed with the heat recovery steam boiler tubes, resulting from the impact of high temperature gas exhaust from the turbines; and, third, the row one turbine blades will require additional maintenance procedures, as compared to design planning. The boiler tube situation required retrofit design modifications soon after operation began, but unit function was restored.

From the record developed thus far, it cannot be ascertained whether these changes in life parameters and depreciation rates are adequate to match investment recovery with the life of the related equipment. The questions which naturally arise from these circumstances can only be answered in the future, as more experience is gained from the operation of installations such as these. The activity and planning related to these installations should be carefully monitored, so that appropriate action can be taken as soon as revisions in capital recovery needs are indicated. Monitoring should include not only maintenance and replacement records, but comparisons with newer technologies which may dictate obsolescence. More so than ever before, the current state of the power industry strongly indicates that investor owned utilities cannot afford any delay in responding to capital recovery needs.

Further, revision of a utility's depreciation rates usually results in a change in its rate of ITC amortization and flowback of excess deferred income taxes of the related investment. Section 46(f)(6) of the Internal Revenue Code (IRC) states that the amortization of ITC's should be determined by the period of time used in computing depreciation expense for purposes of reflecting regulated operating results of the utility. Therefore, it is also appropriate to change the amortization of ITC's, in those instances where amortization of ITC's exist.

Section 203(e) of the Tax Reform Act of 1986 (TRA) prohibits rapid writeback of protected (depreciation related) deferred taxes. In addition, Rule 25-14.013, Accounting for Deferred Income Taxes under SFAS 109, Florida Administrative Code (F.A.C.) prohibits, without good cause shown, excess deferred income taxes associated with temporary differences from being reversed any faster than allowed under Section 203(e). Therefore, both the TRA and Rule 25-14.013, F.A.C., prohibit faster write-off of protected excess deferred taxes. Consequently, staff believes that the flowback of excess deferred taxes should be altered to comply with the TRA and Rule 25-14.013, F.A.C.

If FPL is currently amortizing ITC's and/or flowing back excess deferred income taxes related to the above-mentioned combined cycle units, the utility should make an adjustment to reflect the new depreciation rates. The adjustment to the amortization of ITC's and/or the flowback of excess deferred taxes should be reflected in the next surveillance report.

The estimated increase to depreciation expenses by plant site, based on January 1, 1996 investments, are as follows:

Fort Lauderdale	$ 15.1 M
Martin	$ 4.2 M
Putnam	$ 1.1 M
Total	$ 20.4 M

ISSUE 2: What is the appropriate amortization period for FPL investment related to personal computer equipment?

RECOMMENDATION: The appropriate amortization period for this investment is three years, based on Company planning. Based on estimated 1996 purchases, an annual increase of approximately $2 M in amortization expense results. (BASS)

STAFF ANALYSIS: Currently, all investment relating to computer equipment is amortized over a five year period. While this is considered adequate for mainframe type equipment, the Company's operations and planning imply an alternate pattern for personal computer type equipment.

Throughout its operations, FPL utilizes software packages which are continually subject to update. The 386 technology which was standard for 1990 technology became obsolete with the coming of 486 technology in 1992-1993. Replacement by the next generation, the Pentium chip, is already underway; and the next generation is over the horizon. This process is expected to continue indefinitely. The proposed three-year amortization period is appropriate as a reasonable match of recovery period with useful life.

By this recommendation, the personal computer type equipment purchased on or after January 1, 1996, will be subject to this three year amortization. Based on estimated 1996 purchases, the change in amortization period will increase the annual accrual by approximately $ 2 M. This increase in annual accrual was included in the preliminary implementation, approved March 5, 1996.

ISSUE 3: What should be the implementation date of the recommended rates and amortization?

RECOMMENDATION: Staff recommends approval of the Company's proposed January 1, 1996, date of implementation for the depreciation rates and amortization. (BASS)

STAFF ANALYSIS: Company data and related calculations abut the January 1, 1996, date. Since the Company's request for preliminary implementation of the proposed rates and amortizations at that date was granted, the accruals will continue at the same level, upon approval of this recommendation.

ISSUE 4: Should this docket be closed?

RECOMMENDATION: Yes. If no substantially affected person timely files a protest to the Commission's notice of proposed agency action, this docket should be closed. (BASS)

STAFF ANALYSIS: If no substantially affected person files a timely request for a Section 120.57, Florida Statutes, hearing within twenty-one days, no further action will be required and this docket should be closed.

FLORIDA POWER AND LIGHT COMPANY
1996 DEPRECIATION STUDY
COMBINED CYCLE INSTALLATIONS
ESTIMATE OF EXPENSES

			CURRENT APPROVED INTERIM, COMPANY PROPOSED, and STAFF RECOMMENDED				
ACCOUNT	1-1-96 INVESTMENT $	1-1-96 RESERVE $	AVERAGE REMAINING LIFE (yrs)	NET SALVAGE (%)	BOOK RESERVE (%)	REMAINING LIFE RATE (%)	EXPENSE ($)
FORT LAUDERDALE COMBINED CYCLE							
Fort Lauderdale Common							
341 Structures and Improvements	73,301,663	2,941,373	19.6	(2)	4.0	5.0	3,665,083
342 Fuel Holders, Producers & Access.	6,429,815	894,961	19.8	(2)	13.9	4.4	282,912
343 Prime Movers	15,313,434	1,526,807	3.1	(2)	10.0	29.7	4,548,090
344 Generators	313,512	39,506	20.0	(2)	12.6	4.5	14,108
345 Accessory Electric Equipment	11,573,974	1,035,521	22.0	(1)	8.9	4.2	486,107
346 Misc. Power Plant Equipment	1,286,865	302,385	12.4	(1)	23.5	6.3	81,072
Total	108,219,263	6,740,553					9,077,372
Fort Lauderdale Unit 4							
341 Structures and Improvements	4,654,679	2,828,818	22.0	(2)	60.8	1.9	88,439
342 Fuel Holders, Producers & Access.	60,052	46,887	18.4	(2)	78.1	1.3	781
343 Prime Movers	146,645,610	14,288,859	12.6	(2)	9.7	7.3	10,705,130
344 Generators	24,581,760	2,141,946	22.0	(2)	8.7	4.2	1,032,434
345 Accessory Electric Equipment	26,470,589	3,407,503	21.0	(1)	12.9	4.2	1,111,765
346 Misc. Power Plant Equipment	2,192,007	326,784	13.3	(1)	14.9	6.5	142,480
Total	204,604,697	23,040,797					13,081,029
Fort Lauderdale Unit 5							
341 Structures and Improvements	2,887,727	915,092	22.0	(2)	31.7	3.2	92,407
342 Fuel Holders, Producers & Access.	16,204	567	19.1	(2)	3.5	5.2	843
343 Prime Movers	144,381,613	16,599,570	12.3	(2)	11.5	7.4	10,684,239
344 Generators	24,986,360	3,502,717	22.0	(2)	14.0	4.0	999,454
345 Accessory Electric Equipment	22,135,721	3,472,999	22.0	(1)	15.7	3.9	863,293
346 Misc. Power Plant Equipment	1,732,515	77,015	13.7	(1)	4.4	7.1	123,009
Total	196,140,140	24,567,960					12,763,245
TOTAL FORT LAUDERDALE	508,964,100	54,349,310					34,921,646

DOCKET NO. 960527-EI
DATE: September 26, 1996

FLORIDA POWER AND LIGHT COMPANY
1996 DEPRECIATION STUDY
COMBINED CYCLE INSTALLATIONS
ESTIMATE OF EXPENSES

ACCOUNT	1-1-96 INVESTMENT $	1-1-96 RESERVE $	CURRENT APPROVED INTERIM, COMPANY PROPOSED, and STAFF RECOMMENDED: AVERAGE REMAINING LIFE (yrs)	NET SALVAGE (%)	BOOK RESERVE (%)	REMAINING LIFE RATE (%)	EXPENSE ($)
MARTIN COMBINED CYCLE							
Martin Common							
341 Structures and Improvements	40,057,273	6,584,184	20.0	(2)	16.4	4.3	1,722,463
342 Fuel Holders, Producers & Access.	2,720,120	503,774	21.0	(2)	18.5	4.0	108,805
343 Prime Movers	24,197,451	4,811,722	5.1	(2)	19.9	16.1	3,895,790
344 Generators	0	0	0.0	0	0	0	0
345 Accessory Electric Equipment	4,580,781	844,768	24.0	(1)	18.4	3.4	155,747
346 Misc. Power Plant Equipment	4,079,523	688,490	11.1	(1)	16.9	7.6	310,044
Total	75,635,148	13,432,938					6,192,849
Martin Combined Cycle Unit 3							
341 Structures and Improvements	1,918,202	535,847	24.0	(2)	27.9	3.1	59,464
342 Fuel Holders, Producers & Access.	867,282	49,963	19.4	(2)	5.8	5.0	43,364
343 Prime Movers	148,820,261	4,125,538	15.8	(2)	2.8	6.3	9,375,676
344 Generators	24,476,951	2,153,729	23.0	(2)	8.8	4.1	1,003,555
345 Accessory Electric Equipment	19,054,209	1,997,991	13.1	(1)	10.5	6.9	1,314,740
346 Misc. Power Plant Equipment	532,349	89,323	24.0	(1)	16.8	3.5	18,632
Total	195,669,254	8,952,391					11,815,431
Martin Combined Cycle Unit 4							
341 Structures and Improvements	1,873,410	492,139	24.0	(2)	26.3	3.2	59,949
342 Fuel Holders, Producers & Access.	653,322	74,011	19.6	(2)	11.3	4.6	30,053
343 Prime Movers	144,813,816	10,510,583	16.4	(2)	7.3	5.8	8,399,201
344 Generators	29,263,816	2,412,954	23.0	(2)	8.2	4.1	1,199,816
345 Accessory Electric Equipment	15,198,695	1,410,576	13.1	(1)	9.3	7.0	1,063,909
346 Misc. Power Plant Equipment	475,879	74,851	24.0	(1)	15.7	3.6	17,132
Total	192,278,938	14,975,114					10,770,060
TOTAL MARTIN	463,583,340	37,360,443					28,778,340

FLORIDA POWER AND LIGHT COMPANY
1996 DEPRECIATION STUDY
COMBINED CYCLE INSTALLATIONS
ESTIMATE OF EXPENSES

ACCOUNT	1-1-96 INVESTMENT $	1-1-96 RESERVE $	CURRENT APPROVED INTERIM, COMPANY PROPOSED, and STAFF RECOMMENDED				
			AVERAGE REMAINING LIFE (yrs)	NET SALVAGE (%)	BOOK RESERVE (%)	REMAINING LIFE RATE (%)	EXPENSE ($)
PUTNAM COMBINED CYCLE							
Putnam Common							
341 Structures and Improvements	11,296,271	6,669,915	10.7	(2)	59.0	4.0	451,851
342 Fuel Holders, Producers & Access.	7,458,083	3,950,215	11.8	(2)	53.0	4.2	313,239
343 Prime Movers	10,039,430	5,461,852	11.8	(2)	54.4	4.0	401,577
344 Generators	36,487	28,535	12.5	(2)	78.2	1.9	693
345 Accessory Electric Equipment	1,721,222	886,280	11.5	(1)	51.5	4.3	74,013
346 Misc. Power Plant Equipment	1,081,079	731,898	10.2	(1)	67.7	3.3	35,676
Total	31,632,572	17,728,695					1,277,049
Putnam Unit 1							
341 Structures and Improvements	34,624	24,564	12.5	(2)	70.9	2.5	866
342 Fuel Holders, Producers & Access.	61,742	25,842	8.4	(2)	41.9	7.2	4,445
343 Prime Movers	48,779,325	17,201,390	11.5	(2)	35.3	5.8	2,829,201
344 Generators	5,382,575	3,739,686	12.3	(2)	69.5	2.6	139,947
345 Accessory Electric Equipment	6,509,413	4,276,893	11.3	(1)	65.7	3.1	201,792
346 Misc. Power Plant Equipment	387,624	264,064	12.5	(1)	68.1	2.6	10,078
Total	61,155,303	25,532,439					3,186,329
Putnam Unit 2							
341 Structures and Improvements	34,624	25,018	11.5	(2)	72.3	2.6	900
342 Fuel Holders, Producers & Access.	61,685	27,675	8.2	(2)	44.9	7.0	4,318
343 Prime Movers	49,241,908	18,623,840	10.6	(2)	37.8	6.1	3,003,756
344 Generators	5,382,575	3,802,317	11.3	(2)	70.6	2.8	150,712
345 Accessory Electric Equipment	6,663,199	4,263,877	10.3	(1)	64.0	3.6	239,875
346 Misc. Power Plant Equipment	373,512	250,923	11.5	(1)	67.2	2.9	10,832
Total	61,757,503	26,993,650					3,410,393
TOTAL PUTNAM	154,545,378	70,254,784					7,873,771
TOTAL COMBINED CYCLE INSTALLATIONS	1,127,092,818	161,964,537					