

DOCKET 951056-WS
EXHIBIT NO. 15 (part 2 of 2)
CASE NO. 97-01720

FLORIDA PUBLIC SERVICE COMMISSION

Docket No. 951056-WS

PALM COAST UTILITY CORPORATION

RATE CASE - 1995 YEAR-END TEST YEAR

EFFLUENT REUSE RATE ANALYSIS

DOCUMENT NUMBER-DATE

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FPSC-RECORDS/REPORTING

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The purpose of this study is to establish a rate for effluent reuse generally applicable for irrigation service. The study produces an effluent reuse rate of \$0.67 per 1,000 gallons, which is calculated on the basis of an allocation of the Company's proforma operations for the test year ended December 31, 1995.

Each revenue requirement component has been allocated to "Effluent Reuse" and "Other." The "Effluent Reuse" category includes items of investment and expenses associated with the 6.0 MG effluent storage tank and 1.0 MGD RIB necessary to provide effluent reuse water for irrigation purposes. The "Other" category includes all investment and expenses associated with the collection and treatment of wastewater.

Table A contains a summary of the allocation of each major revenue requirement component as described in column A. The allocations to Effluent Reuse (column D) and Other (column E) are explained by either a separate support table or an allocation symbol (column C). Explanations of the allocation symbols are shown on Table G. As reflected in column D, the total revenue requirement attributed to effluent reuse is \$506,593. This figure has been divided by 760,832 thousand gallons of effluent in order to calculate a rate of \$0.67 per thousand gallons; this calculation is also shown on Table A.

Table B contains the Rate Base allocation which, as reflected on Table A, symbol C, is used to allocate the revenue requirement components related to Income Taxes and Net Operating Income. Table

B has a format which is similar to Table A. The rate base components are described in column A. The total used and useful proforma 12/31/95 figures are set forth in column B, and the allocations to Effluent Reuse are set forth in column C. The allocation of each rate base component is supported by either a table or an allocation symbol (column C).

Table C contains the allocation to Effluent Reuse of the used and useful plant in service by primary plant account. Column F refers to allocations symbols which are explained on Table G.

Tables D, E and F contain the allocations of Accumulated Depreciation, Depreciation Expense and Taxes-Other Than Income Taxes. Once again, the allocation symbols are explained on Table G.

The information and data used to develop the allocation symbols (Table G) were obtained from an examination of the utility plant accounts and information furnished by the Company with respect to both the utilization of the utility's facilities and estimates of labor and other operating expenses. Where there were items of investment or expense for which no direct allocation could be made, an allocation was made based on a weighing of other allocations.

**Palm Coast Utility Corporation
Effluent Rate Study
Cost Allocation**

Table A

Summary of Revenue Requirement Allocations

Line No.	Description (A)	Used & Useful Pro Forma 12/31/95 (B)	Allocation Symbol or Table (C)	Effluent Reuse (D)	Other (E)
1	Operation & Maintenance Expense	\$1,968,651	e	\$28,195	\$1,940,456
2					
3	Depreciation Expense net of CIAC Amort.	764,080	Table E	135,666	628,414
4					
5	Amortization, CIAC Tax Gross-up	(58,834)	b	0	(58,834)
6					
7	Taxes Other Than Income	445,609	Table F	22,797	422,812
8					
9	Provision for Income Taxes	369,490	c	66,139	303,351
10					
11	Net Operating Income	1,417,853	c	253,796	1,164,057
12					
13	Revenue Requirement	\$4,906,849		\$506,593	\$4,400,256
14					
15	Percentage	100.00%		10.32%	89.68%

Calculation of Effluent Rate

Effluent Reuse Revenue Requirement	\$506,593
Total Effluent Flow for 1995 (1,000 gallons)	760,832
Rate Per 1000 gallons	\$0.67

**Palm Coast Utility Corporation
Effluent Rate Study
Cost Allocation**

Table B

Rate Base Allocation

Line No.	Description (A)	Used & Useful Pro Forma 12/31/95 (B)	Allocation Symbol or Table (C)	Effluent Reuse (D)	Other (E)
1	Plant in Service Land & Land Rights	\$39,305,454	Table C	\$2,935,977	\$36,369,477
2					
3	Less: Accumulated Depreciation	(12,334,254)	Table D	(66,889)	(12,267,365)
4					
5	Less: CIAC	(17,508,166)	b	0	(17,508,166)
6					
7	Accumulated Amortization of CIAC	5,212,312	b	0	5,212,312
8					
9	Advances for Construction	(584,539)	b	0	(584,539)
10					
11	Net Debit Deferred Taxes (Used)	1,940,403	b	0	1,940,403
12					
13	Total Rate Base	\$16,031,210		\$2,869,088	\$13,162,122
14					
15	Percentage	100.00%	c	17.90%	82.10%

**Palm Coast Utility Corporation
Effluent Rate Study
Cost Allocation**

Table C

Plant in Service by Primary Account

Line No.	Account Number (A)	Description (B)	Pro Forma 12/31/95 (C)	Non-Used & Useful Amount (D)	Used & Useful Pro Forma 12/31/95 (E)	Allocation Symbol (F)	Effluent Reuse (G)	Other (H)
1		INTANGIBLE PLANT						
2	351.1	Organization	\$6,130	\$0	\$6,130	d	\$236	\$5,894
3	352.1	Franchises	2,684	0	2,684	d	103	2,581
4	389.1	Other Plant & Misc. Equipment	121,386	0	121,386	d	4,668	116,718
5		COLLECTION PLANT						
6	353.2	Land & Land Rights	0	0	0	b	0	0
7	354.2	Structures & Improvements	6,560	0	6,560	b	0	6,560
8	360.2	Collection Sewers – Force	0	0	0	b	0	0
9	361.2	Collection Sewers – Gravity	35,493,443	14,538,114	20,955,329	b	0	20,955,329
10	362.2	Special Collecting Structures	0	0	0	b	0	0
11	363.2	Services to Customers	2,964,847	1,273,698	1,691,149	b	0	1,691,149
12	364.2	Flow Measuring Devices	0	0	0	b	0	0
13	365.2	Flow Measuring Installations	0	0	0	b	0	0
14	389.2	Other Plant & Misc. Equipment	0	0	0	b	0	0
15		SYSTEM PUMPING PLANT						
16	353.3	Land & Land Rights	207,043	0	207,043	b	0	207,043
17	354.3	Structures & Improvements	101,995	43,735	58,260	b	0	58,260
18	370.3	Receiving Wells	0	0	0	b	0	0
19	371.3	Pumping Equipment	4,233,215	1,815,203	2,418,012	b	0	2,418,012
20	389.3	Other Plant & Misc. Equipment	0	0	0	b	0	0
21		TREAT. AND DISPOSAL PLANT						
22	353.4	Land & Land Rights	946,489	0	946,489	a	560,137	386,352
23	354.4	Structures & Improvements	6,402,440	1,518,658	4,883,782	b	0	4,883,782
24	380.4	Treatment & Disposal Equip.	6,707,269	857,080	5,850,189	a	2,288,998	3,561,191
25	381.4	Plant Sewers	0	0	0	b	0	0
26	382.4	Outfall Sewer Lines	0	0	0	b	0	0
27	389.4	Other Plant & Misc. Equipment	0	0	0	b	0	0
28		GENERAL PLANT						
29	353.5	Land & Land Rights	0	0	0	d	0	0
30	354.5	Structures & Improvements	534,224	0	534,224	d	20,542	513,682
31	390.5	Office Furniture & Equipment	391,033	0	391,033	d	15,036	375,997
32	391.5	Transportation Equipment	678,806	0	678,806	d	26,102	652,704
33	392.5	Stores Equipment	6,057	0	6,057	d	233	5,824
34	393.5	Tools, Shop & Garage Equip.	188,947	0	188,947	d	7,266	181,681
35	394.5	Laboratory Equipment	20,739	0	20,739	d	797	19,942
36	395.5	Power Operated Equipment	253,942	0	253,942	d	9,765	244,177
37	396.5	Communication Equipment	52,925	0	52,925	d	2,035	50,890
38	397.5	Miscellaneous Equipment	1,527	0	1,527	d	59	1,468
39	398.5	Other Tangible Plant	0	0	0	d	0	0
40								
41	450.0	Advanced Mains	13,789	0	13,789	b	0	13,789
42	450.1	Advanced Mains	16,452	0	16,452	b	0	16,452
43	106.0	Undistributed Gen. Plant	0	0	0	b	0	0
44								
45	300.0	Future Use	179,081	179,081	0	b	0	0
46	107.0	Advanced Property	0	0	0	b	0	0
47								
48		Total	\$59,531,023	\$20,225,569	\$39,305,454		\$2,935,977	\$36,369,477
49								
50		Percentage			100.00%		7.47%	92.53%

**Palm Coast Utility Corporation
Effluent Rate Study
Cost Allocation**

Table D

Accumulated Depreciation Allocation

Line No.	Account Number (A)	Description (B)	Pro Forma 12/31/95 (C)	Non-Used & Useful Amount (D)	Used & Useful Pro Forma 12/31/95 (E)	Allocation Symbol (F)	Effluent Reuse (G)	Other (H)
1		INTANGIBLE PLANT						
2	351.1	Organization	\$4,874	\$0	\$4,874	d	\$14	\$4,860
3	352.1	Franchises	2,150	0	2,150	d	6	2,144
4	389.1	Other Plant & Misc. Equipment	101,895	0	101,895	d	290	101,605
5		COLLECTION PLANT						
6	353.2	Land & Land Rights	0	0	0	b	0	0
7	354.2	Structures & Improvements	2,948	0	2,948	b	0	2,948
8	360.2	Collection Sewers – Force	0	0	0	b	0	0
9	361.2	Collection Sewers – Gravity	11,844,229	4,851,396	6,992,833	b	0	6,992,833
10	362.2	Special Collecting Structures	0	0	0	b	0	0
11	363.2	Services to Customers	1,286,818	552,817	734,001	b	0	734,001
12	364.2	Flow Measuring Devices	0	0	0	b	0	0
13	365.2	Flow Measuring Installations	0	0	0	b	0	0
14	389.2	Other Plant & Misc. Equipment	0	0	0	b	0	0
15		SYSTEM PUMPING PLANT						
16	353.3	Land & Land Rights	43	0	43	b	0	43
17	354.3	Structures & Improvements	44,381	19,030	25,351	b	0	25,351
18	370.3	Receiving Wells	0	0	0	b	0	0
19	371.3	Pumping Equipment	1,939,909	831,833	1,108,076	b	0	1,108,076
20	389.3	Other Plant & Misc. Equipment	0	0	0	b	0	0
21		TREAT. AND DISPOSAL PLANT						
22	353.4	Land & Land Rights	40	0	40	b	0	40
23	354.4	Structures & Improvements	1,329,271	315,303	1,013,968	b	0	1,013,968
24	380.4	Treatment & Disposal Equip.	1,480,907	189,236	1,291,671	a	63,583	1,228,088
25	381.4	Plant Sewers	0	0	0	b	0	0
26	382.4	Outfall Sewer Lines	0	0	0	b	0	0
27	389.4	Other Plant & Misc. Equipment	0	0	0	b	0	0
28		GENERAL PLANT						
29	353.5	Land & Land Rights	0	0	0	d	0	0
30	354.5	Structures & Improvements	137,789	0	137,789	d	392	137,397
31	390.5	Office Furniture & Equipment	201,390	0	201,390	d	573	200,817
32	391.5	Transportation Equipment	497,925	0	497,925	d	1,417	496,508
33	392.5	Stores Equipment	4,189	0	4,189	d	12	4,177
34	393.5	Tools, Shop & Garage Equip.	70,616	0	70,616	d	201	70,415
35	394.5	Laboratory Equipment	9,997	0	9,997	d	28	9,969
36	395.5	Power Operated Equipment	93,183	0	93,183	d	265	92,918
37	396.5	Communication Equipment	36,599	0	36,599	d	104	36,495
38	397.5	Miscellaneous Equipment	1,540	0	1,540	d	4	1,536
39	398.5	Other Tangible Plant	0	0	0	d	0	0
40								
41	450.0	Advanced Mains	2,491	0	2,491	b	0	2,491
42	450.1	Advanced Mains	685	0	685	b	0	685
43	106.0	Undistributed Gen. Plant	0	0	0	b	0	0
44								
45	300.0	Future Use	0	0	0	b	0	0
46	107.0	Advanced Property	0	0	0	b	0	0
47								
48		Total	\$19,093,869	\$6,759,615	\$12,334,254		\$66,889	\$12,267,365
49		Percentage			100.00%		0.54%	99.46%
50								

**Palm Coast Utility Corporation
Effluent Rate Study
Cost Allocation**

Table E

Depreciation Expense Allocation

Line No.	Account Number (A)	Description (B)	Pro Forma 12/31/95 (C)	Non-Used & Useful Amount (D)	Used & Useful Pro Forma 12/31/95 (E)	Allocation Symbol (F)	Effluent Reuse (G)	Other (H)
1		INTANGIBLE PLANT						
2	351.1	Organization	\$204	\$0	\$204	d	\$11	\$193
3	352.1	Franchises	84	0	84	d	5	79
4	389.1	Other Plant & Misc. Equipment	5,052	0	5,052	d	274	4,778
5		COLLECTION PLANT						
6	353.2	Land & Land Rights	0	0	0	b	0	0
7	354.2	Structures & Improvements	204	0	204	b	0	204
8	360.2	Collection Sewers – Force	0	0	0	b	0	0
9	361.2	Collection Sewers – Gravity	873,351	357,725	515,626	b	0	515,626
10	362.2	Special Collecting Structures	0	0	0	b	0	0
11	363.2	Services to Customers	78,012	33,514	44,498	b	0	44,498
12	364.2	Flow Measuring Devices	0	0	0	b	0	0
13	365.2	Flow Measuring Installations	0	0	0	b	0	0
14	389.2	Other Plant & Misc. Equipment	0	0	0	b	0	0
15		SYSTEM PUMPING PLANT						
16	353.3	Land & Land Rights	0	0	0	b	0	0
17	354.3	Structures & Improvements	3,180	1,364	1,816	b	0	1,816
18	370.3	Receiving Wells	0	0	0	b	0	0
19	371.3	Pumping Equipment	233,472	100,113	133,359	b	0	133,359
20	389.3	Other Plant & Misc. Equipment	0	0	0	b	0	0
21		TREAT. AND DISPOSAL PLANT						
22	353.4	Land & Land Rights	0	0	0	b	0	0
23	354.4	Structures & Improvements	200,348	47,522	152,826	b	0	152,826
24	380.4	Treatment & Disposal Equip.	370,836	47,387	323,449	a	127,167	196,282
25	381.4	Plant Sewers	0	0	0	b	0	0
26	382.4	Outfall Sewer Lines	0	0	0	b	0	0
27	389.4	Other Plant & Misc. Equipment	0	0	0	b	0	0
28		GENERAL PLANT						
29	353.5	Land & Land Rights	0	0	0	d	0	0
30	354.5	Structures & Improvements	13,213	0	13,213	d	717	12,496
31	390.5	Office Furniture & Equipment	30,011	0	30,011	d	1,627	28,384
32	391.5	Transportation Equipment	79,610	0	79,610	d	4,317	75,293
33	392.5	Stores Equipment	247	0	247	d	13	234
34	393.5	Tools, Shop & Garage Equip.	8,869	0	8,869	d	481	8,388
35	394.5	Laboratory Equipment	1,410	0	1,410	d	76	1,334
36	395.5	Power Operated Equipment	13,990	0	13,990	d	759	13,231
37	396.5	Communication Equipment	4,037	0	4,037	d	219	3,818
38	397.5	Miscellaneous Equipment	0	0	0	d	0	0
39	398.5	Other Tangible Plant	0	0	0	d	0	0
40								
41	450.0	Advanced Mains	348	0	348	b	0	348
42	450.1	Advanced Mains	384	0	384	b	0	384
43	106.0	Undistributed Gen. Plant	0	0	0	b	0	0
44								
45	300.0	Future Use	0	0	0	b	0	0
46	107.0	Advanced Property	0	0	0	b	0	0
47								
48		Subtotal	\$1,916,862	\$587,625	\$1,329,237		\$135,666	\$1,193,571
49		Less: Amortization of CIAC	1,625,604	1,060,447	565,157	b	0	565,157
50								
51		Total	291,258	(472,822)	764,080		135,666	628,414
52								
53		Percentage			100.00%		17.76%	82.24%

**Palm Coast Utility Corporation
Effluent Rate Study
Cost Allocation**

Table F

Allocation of Taxes, Other Than Income Tax

Line No.	Description (A)	Total (B)	Allocation Symbol (C)	Effluent Reuse (D)	Other (E)
1	Regulatory Assesment Fees	\$220,808	a	\$22,797	\$198,011
2					
3	Payroll Taxes	77,706	b	0	77,706
4					
5	Real Estate & Personal Property	143,671	b	0	143,671
6					
7	Other	3,424	b	0	3,424
8					
9	Total	\$445,609		\$22,797	\$422,812
10					
11	Percentage	100.00%		5.12%	94.88%

**Palm Coast Utility Corporation
Effluent Rate Study
Cost Allocation**

Table G

Effluent Reuse Allocation Symbols

Line No.	Allocation Symbols	Description	Allocation Factor
1	a	These items are allocated by direct cost.	•
2			
3	b	These items are not necessary for providing effluent service and do not impact effluent costs.	0.00%
4			
5			
6	c	Items bearing this symbol are allocated based on the relationship of effluent reuse rate base to total rate base.	17.90%
7			
8		Total Rate Base	16,031,210
9		Effluent Reuse Related Rate Base	2,869,088
10			
11	d	Items bearing this symbol are allocated based on a 50% weighing of all other items.	**
12			
13			
14	e	This direct allocation to Operation and Maintenance is described below.	2.40%
15			
16		<u>Effluent Reuse</u>	
17		Total Amount %	
18			
19		Sewer Operating Salaries	722,294 10,048 1.39%
20		(based on employee reports)	
21			
22		Admin. & General Salaries	513,748 7,147 1.39%
23		(based on sewer oper. salaries)	
24			
25		Chemicals	27,731 11,000 39.67%
26		(based on chlorine expense)	
27			
28		Rate Case Expense	37,688 3,000 7.96%
29			
30		Total	1,301,461 31,195 2.40%
31			
32			
33			
34			
35			
36			
37			
38			
39		* Effluent Reuse amounts are calculated individually.	
40		** Calculated separately for related schedules	