

Lake Utility Services, Inc.
Docket No. 960444-WU
Staff Data Request Dated September 20, 1996

1. As shown on Schedule E-2, the utility has proposed a lump sum consumption adjustment of 96,900,000 gallons; however, no support was provided for that figure. Therefore, for each service area in which the utility provides service (that is, each service area listed in Schedule E-1), please provide the amount of the projected consumption reduction, if any, that the utility believes will occur in that service area. This information should be provided by customer class and meter size in the format indicated on Attachment A of this letter. Please note that: a) totals from the Projected Consumption Reductions column (7) on Attachment A for each service area should sum to the utility's total proposed consumption adjustment of 96,900,000 gallons; and b) the totals for actual consumption provided in column (3) of Attachment A for each service area should tie to the totals in column (3) of Schedule F-1 for that respective service area. In the event these totals do not match, please explain the reasons for the discrepancies in the totals.
- A. Please see the attached workpaper.

Schedule E-2 was updated in conjunction with the Staff Data Request dated September 19, 1999. For your convenience, an updated version of Schedule E-2 is enclosed.

General Service was not included in the attached schedule as the company feels that General Service price elasticity is substantially less than the Residential sector.

It is impossible to tie F-1 to the attached schedule for individual areas as some of the interconnected areas have different rate structures. For instance, Hills of Lake Louisa, Crescent Bay, and Crescent West have one rate structure while Highland Point and Lake Crescent Hills has another. However, all of the systems are interconnected and therefore the pumping statistics for area versus another are not determinable.

DOCUMENT NUMBER-DATE

11164 OCT 18 99

FPSC-RECORDS/REPORTING

Revenue Schedule at Present and Proposed Rates

Florida Public Service Commission

Company: Lake Utility Services, Inc.
 Docket No.: 960444-WU
 Schedule Year Ended: 12/31/95
 Water [X] or Sewer []

Schedule: E-2
 Page 1 of 1
 Preparer: MFK

Explanation: Provide a calculation of revenues at present and proposed rates using the billing analysis. Explain any differences between these revenues and booked revenues. If a rate change occurred during the test year, a revenue calculation must be made for each period.

(1) Class/Meter Size	(2) Number Bills	(3) Consumption in MG	(4) Test Year Rate	(5) Revenues at TY Rates	(6) Proposed Rate	(7) Revenues at Proposed Rates
Residential						
5/8" x 3/4"	5,843		\$7.035	\$41,106	\$18.000	\$105,174
< 5,000 gallons		26,901,588	0.000	0	\$2.195	59,049
> 5,000 gallons		142,732,773	0.690	98,486	\$2.195	313,298
5/8" x 3/4"	2,632		16.520	43,481	\$18.000	47,376
M Gallons		28,151,200	1.860	52,361	\$2.195	61,792
5/8" x 3/4"	591		5.540	3,274	\$18.000	10,638
< 3,000 gallons		1,705,307	0.000	0	\$2.195	3,743
> 3,000 gallons		4,169,568	0.810	3,377	\$2.195	9,152
Consumption adjustment (b)		(94,868,436)			\$2.195	(208,236)
Total Residential	9,066	108,792,000		\$242,084		\$401,986
Average Bill				\$26.70		\$44.34
General Service						
5/8" x 3/4"	10		\$16.520	\$165	\$18.000	\$180
M Gallons		65,520	1.860	122	\$2.195	144
1"	142		7.035	999	\$27.000	\$3,834
< 5,000 gallons		606,270	0.000	0	\$2.195	1,331
> 5,000 gallons		5,940,010	0.690	4,099	\$2.195	13,038
1"	15		41.240	619	\$27.000	\$405
M Gallons		124,230	1.860	231	\$2.195	273
1.5"	36		7.035	253	\$45.000	\$1,620
< 5,000 gallons		116,300	0.000	0	\$2.195	255
> 5,000 gallons		2,986,700	0.690	2,061	\$2.195	6,556
2"	24		7.035	169	\$90.000	\$2,160
< 5,000 gallons		59,000	0.000	0	\$2.195	130
> 5,000 gallons		437,500	0.690	302	\$2.195	960
Total Gen. Serv.	227	10,335,530		\$9,019		\$30,885
Average Bill				\$39.73		\$136.06

(a) Proposed rates do not include any minimum gallon usage.

(b) Consumption adjustment is made to equalize consumption to 12,000 gallons per month. Although this consumption is considered a high, however based on the average consumption in excess of 29,000 gal/mo. this level appears reasonable. Obviously, consumption is expected to drop significantly with the large rate increase in some areas.

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2. Please provide the documentation that supports each consumption reduction figure provided in column (7) on Attachment A from above. This request includes but is not limited to all workpapers, studies or analysis used to derive the utility's projected consumption reduction figures for each service area.
- A. Attached is Staff's Requested Attachment A.

We are basing our consumption reduction on our experience in the utility business of over thirty years and a recent study performed by the National Regulatory Research Institute released in September of 1994. While it is uncommon for our company to request an adjustment for elasticity of demand, in fact this is the first, this case merits significant investigation. No where else in our company is consumption at the level that exists in Clermont I & II, Amber Hill, Highland Point, The Oranges, Lake Ridge Club, The Vistas, Crescent West and Lake Crescent Hills. The average residential customer uses **in excess of 29,000 gallons per month.**

While comparison to Utilities, Inc.'s other 250 systems may not be representative, surely the comparison to other South Clermont area systems is germane. The average residential customer in Crescent Bay, Lake Saunders Acres, Preston Cove, and South Clermont Region average monthly consumption of **under 10,700 gallons**. The Staff has visited each of the subdivisions and can attest to the fact that these areas are quite similar in character. The lots are about the same size, the houses contain approximately the same square footage, and the value of the property and homes is quite comparable. In other words, there is no difference between a home in Amber Hill versus a home in Crescent Bay, or a home in Highland Point versus the Hills of Lake Louisa.

The only significant difference between the two areas is the current level of rates. At a consumption level of 10,000 gallons, the first area referred to above, would pay \$10.48. The exact same consumption in the second group of subdivisions results in a bill of \$35.12. In fact, at the average monthly consumption of 29,000 gallons, the first group's bill is only \$23.60. This disparity was the propellant for this case.

Our consumption adjustment attempted to be conservative and suggest an average consumption of 12,000 gallons throughout the region. Obviously this would require usage to *increase* with increased rates in the second group, which is highly unlikely.

Recognizing that the Commission has a responsibility to rely on empirical data to support its common sense I investigated the the National Regulatory Research Institute's Revenue Effects of Water Conservation and Conservation Pricing: Issues and Practices released in September of 1994. If the Staff does not have access to this literature, please advise.

Although the study emphasizes the effect of conservation, price elasticity is discussed. In fact, according to a study performed by Whitcomb, Yingling & Winer "Residential Water Price Elasticities in Southwest Florida" proceedings of Conserv93, Denver, CO: American Water Works Association, 1993, 695-701, in 1993 of the Southwest Florida Management District, price elasticity was found to exist as high as -0.9. In Charles Howe and E. Earl Whitlatch, "User-Specific Water Demand Elasticities," *Journal of Water Resources Planning and Management* 117 (January - February 1991): 52-73 found the price elasticity for residential domestic irrigation demand to be -1.57 in the eastern United States.

The results of the study can be used mathematically to support our consumption adjustment. With an elasticity of -0.9, for example, a 10 percent increase in price is associated with a nine percent reduction in the quantity demanded. With an elasticity of negative one point five seven (-1.57), a 10 percent increase in price is associated with a 15.7% reduction in the quantity demanded.

The proposed rates represent approximately a 171% increase in rates to those subdivisions in group one referred to above. With an elasticity of -0.9 consumption would be expected to decline by over 100%. Obviously this is impossible, so a floor must be ascertained when the rates become inelastic. One could argue that the "floor" is the consumption in group two, or 10,700 gallons per month. However, to provide a conservative estimate, we used 12,000 gallons.

Company: Lake Utility Services, Inc.
Docket No.: 960444-WU
Schedule Year Ended: 12/31/95
Water [X] Wastewater [X]

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				[(2)X(4)]+[(3)X(4)]			[(2)X(6)]+[(3)-(7)]X6]
Customer Class / Meter Size	No. of Bills	Actual Consumption in M Gals	Test Year Rates	Revenues @ TY Rates	Proposed Rates	Projected Consumption Reduction	Revenues @ Proposed Rates
Crescent Bay, Lake Saunders Acres, Preston Cove, South Clermont Region and all future areas served.							
Residential:							
5/8" x 3/4"	2,632	28,151,200	\$16.52 base \$1.86/1,000 gals	95,842	\$18.00 base \$2.195/1,000 gals	(3,432,800)	116,703
1"	-						
1-1/2"	-						
2"	-						
3"	-						
4"	-						
6"	-						
Clermont I & II, Amber Hill, Highland Point, The Oranges, Lake Ridge Club The Vistas I & II, Crescent West, Lake Crescent Hills							
Residential:							
5/8" x 3/4"	5,843	169,634,361	\$7.035 min, 5,000 gals \$0.69/1000 > 5,000 gals	139,592	\$18.00 base \$2.195/1,000 gals	99,518,361	259,079
1"	-						
1-1/2"	-						
2"	-						
3"	-						
4"	-						
6"	-						
Harbor Oaks / Four Lakes Subdivision							
Residential:							
5/8" x 3/4"	591	5,874,875	\$5.54 min, 3,000 gals \$0.81/1000 > 3,000 gals	6,651	\$18.00 base \$2.195/1,000 gals	(1,217,125)	26,205
1"	-						
1-1/2"	-						
2"	-						
3"	-						
4"	-						
6"	-						
TOTAL	9,066	203,660,436		242,085		94,868,436	401,986

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3. To the extent the utility lacks the documents requested in question (2) above, please explain the basis for selecting a targeted average consumption per customer of 12,000 gallons per month as mentioned in footnote (b) on Schedule E-2.
- A. Please see response to DR 2.

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4. Please provide the gallons sold, by service area (per Schedule E-1), customer class and meter size, in a format consistent with Attachment B of this letter. Please ensure that the total gallons sold in each service area match the corresponding figures provided in response to question (1) above.
- A. The billing analysis filed in conjunction with the Minimum Filing Requirements is in the identical format to what is sought in this request. If additional, or different information is necessary, please advise.

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5. In order to accomplish a thorough analysis of the utility's proposed repression adjustment, a measure of customer wealth should also be considered. Therefore, for each of the utility's service areas, please provide the percentage of residential customers whose property values fall within the following ranges: a) below \$48,000; b) \$48,000 - \$71,000; and c) over \$71,000. In the event the utility is unable to obtain this information, please provide the average residential property value in each service area.
- A. While the company is certainly not in the real estate appraisal business, we can reasonably estimate that all areas served by LUSI have real estate values in excess of \$71,000. The lone exception may be the Lake Saunders Acres area which may average in the upper end of the \$48,000 - \$71,000 range. As I stated in DR 2, most of the systems are almost identical. Staff has completed a field study of our facilities and should be consulted to verify this information.