

DOCKET NO.: 991437-WU - Application for increase in water rates in Orange County by Wedgefield Utilities, Inc.

WITNESS: **DIRECT TESTIMONY OF FRANCES J. LINGO**, APPEARING ON BEHALF OF THE STAFF OF THE FLORIDA PUBLIC SERVICE COMMISSION

DATE FILED: May 31, 2001

DOCUMENT NUMBER-DATE

06846 MAY 31 2001

FPSC-RECORDS/REPORTING

DIRECT TESTIMONY OF FRANCES J. LINGO

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Q. Would you please state your name, and business address for the record?

A. My name is Frances J. Lingo. My business address is 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850.

Q. By whom are you employed, and in what capacity?

A. I am employed by the Florida Public Service Commission (Commission) as an Economic Analyst in the Bureau of Economics, Finance and Rates in the Division of Economic Regulation.

Q. How long have you been employed by the Commission?

A. I have been employed by the Commission since June 12, 1989.

Q. Would you please state your educational background and experience?

A. I received a Bachelor of Science Degree with a major in Accounting, and a Bachelor of Science Degree with a major in Economics, both from The Florida State University, in August 1983.

From October 1983 to May 1989, I was employed by Ben Johnson Associates, Inc. (BJA), an economic and analytic consulting firm specializing in the area of public utility regulation. During my employment at BJA, I performed research and analysis in more than 75 utility rate proceedings, assisting with the coordination and preparation of exhibits. I also assisted with the preparation of testimony, discovery and cross-examination regarding rate design issues.

In particular, I prepared embedded cost-of-service studies, made typical bill comparisons and examined local service rate and cost relationships. I studied residential and general service rates, customer charges, management decision-making processes, slippage in the engineering and construction of

1 | nuclear power plants, nuclear versus coal plant costs and seasonal load and
2 | usage patterns.

3 | In June 1989, I joined the Commission as a Regulatory Analyst II. In
4 | June 1990, I was promoted to Regulatory Analyst III; in October 1991, I was
5 | promoted to Regulatory Analyst IV; and in April 1996, I was promoted to my
6 | current position of Economic Analyst.

7 | Q. Would you please describe your experience and duties at the Commission?

8 | A. Yes. My experience at the Commission includes but is not limited to:
9 | (a) reviewing water and wastewater cases to identify economic and rate
10 | issues associated with rate structure, repression and forecasted
11 | billing determinants;
12 | (b) performing accounting, engineering, economic and statistical
13 | analysis on those issues, and presenting recommendations (and
14 | expert testimony when necessary) on those issues;
15 | (c) developing and promoting liaison activities with other
16 | governmental agencies, including the Department of Environmental
17 | Protection, the Water Management Districts (WMDs), and other
18 | government agencies;
19 | (d) reviewing and evaluating staff-assisted rate case (SARC) filings,
20 | auditing utilities' books and records, developing rate base, rate
21 | of return and revenue requirements, and preparing and presenting
22 | recommendations in cases in which I am involved;
23 | (e) conducting overearning investigations; and
24 | (f) conducting research and other related duties relating to water and
25 | wastewater utilities subject to the Commission's jurisdiction.

1 In addition, I have been a faculty member of the NARUC Annual Regulatory
2 Studies Program at Michigan State University since 1998, and a faculty member
3 of the Eastern Utility Rate School since 1997, lecturing on water pricing
4 concepts.

5 Q. Have you previously testified before this Commission on behalf of
6 Commission Staff?

7 A. Yes. In January 1993, I testified in the show cause portion of Docket
8 No. 900025-WS regarding the application for a staff-assisted rate case by
9 Shady Oaks Mobile-Modular Estates, Inc. (Shady Oaks). In August 1994, I
10 testified in Docket No. 930944-WS regarding the revocation of the water and
11 wastewater certificates of Shady Oaks. And in October 1996, I testified in
12 Docket No. 950615-SU regarding the application for approval of a reuse project
13 plan and an increase in wastewater rates by Aloha Utilities, Inc.

14 Q. Are you familiar with the facts surrounding Staff's recommendation dated
15 July 20, 2000, filed in this docket, regarding the appropriate base facility
16 charge (BFC) versus gallonage charge cost recovery allocation in Docket No.
17 991437-WU?

18 A. Yes, I was the Economic Analyst responsible for that issue.

19 Q. What is the purpose of your testimony in this case?

20 A. The purpose of my testimony is to:

21 (a) respond to comments made in the prefiled testimony of utility
22 witness Erin Nicholas;

23 (b) explain why Staff believes the utility's proposed BFC allocation
24 of 44% is inappropriate in this case;

25 (c) explain the Memorandum of Understanding (MOU) that exists between

1 the Commission and the five Water Management Districts (WMDs), and
2 how the Commission and the WMDs work together in cases,
3 specifically with regard to Wedgefield's case; and

4 (d) explain why Staff believes a recommended BFC allocation percentage
5 of 36% is appropriate.

6 Q. Have you prepared exhibits in this case?

7 A. Yes, I have prepared two exhibits. Exhibit FJL-1 is entitled "Cost
8 Recovery Trade-off," and Exhibit FJL-2 is entitled "Coverage of Fixed Costs."

9 Q. Have you read the prefiled testimony of utility witness Nicholas?

10 A. Yes, I have.

11 Q. Would you like to comment on her testimony?

12 A. Yes, I would like to comment both on her proposed 44% revenue
13 requirement recovery through the BFC and her belief that Staff's recommended
14 rate structure will place the utility at a higher risk for revenue
15 instability.

16 Q. Regarding the appropriate revenue requirement recovery through the BFC,
17 on page 4, lines 17-19 of witness Nicholas' testimony, she proposes that the
18 appropriate percentage of revenue requirement to be recovered through the base
19 facility charge should be at least 44%. Do you agree that 44% is an
20 appropriate percentage of revenue requirement to be recovered through the BFC?

21 A. No, I do not. First, I would like to clarify a statement made in the
22 Staff Recommendation dated July 20, 2000 that the standard allocation of cost
23 recovery between fixed and variable costs would result in a 51% allocation of
24 cost recovery through Wedgefield's BFC. In Staff's Recommendation, I referred
25 to the 51% as a "standard allocation" of cost recovery through the BFC.

1 | However, a more precise statement would have been, "The standard procedure in
2 | water rate cases is for the accounting Staff assigned to the case to allocate
3 | the individual components of revenue requirements before any additional
4 | analysis is performed. In this case, the resulting initial allocation to the
5 | BFC was 51%." The 51% does not represent the fixed costs of providing service
6 | as witness Nicholas contends on pg. 4 lines 22 through page 5 line 1.

7 | Q. Why was additional analysis necessary?

8 | A. The water industry is quite capital-intensive, and traditional cost of
9 | service allocations may result in a high BFC relative to the gallonage charge.
10 | However, this does not send the appropriate price signal to customers
11 | regarding conservation. A method of mitigating this disparity is to make an
12 | adjustment to shift a portion of the cost recovery burden from the BFC to the
13 | gallonage charge.

14 | Q. Did witness Nicholas perform any analysis to arrive at her proposed 44%
15 | allocation figure?

16 | A. No, she did not. On page 4, line 22 through page 5, line 2 witness
17 | Nicholas testifies that the 44% represents a fair result between the 51%
18 | determined by Staff to be the fixed costs to provide service and the 36%
19 | recommended by Staff to urge water conservation. Witness Nicholas merely
20 | split the difference between the 51% allocation figure and my recommended
21 | figure of 36%. Furthermore, as evident in the utility's responses to Staff's
22 | First Request for Production of Documents Nos. 1-4, and as directly stated in
23 | the utility's response to Staff's Third Set of Discovery, "Wedgfield's
24 | proposal is not based on any analysis, studies, or research." Based on the
25 | lack of analysis associated with the utility's proposal to recover 44% of its

1 revenue requirement through its BFC, it is evident that the utility's proposal
2 is arbitrary and should be rejected.

3 Q. What is your recommended percentage of cost recovery through the BFC?

4 A. I recommend that 36% is an appropriate percentage.

5 Q. What is the basis for your recommendation?

6 A. A BFC cost allocation percentage of 36% sends a stronger conservation
7 pricing signal to Wedgefield's customers compared to the 44% proposed by
8 utility witness Nicholas. Without the proper pricing signals there would be
9 no incentive for the customers to utilize proper conservation practices.
10 Importantly, my recommended 36% is endorsed in the testimony of Staff witness
11 Dwight T. Jenkins, Director of the Division of Water Use Regulation of the St.
12 Johns River Water Management District (SJRWMD), as a means of promoting water
13 conservation.

14 Q. Why is the endorsement of the SJRWMD important?

15 A. As I previously mentioned, the Commission has a MOU with the SJRWMD, as
16 well as with the four other WMDs. In June 1991, the Commission and the five
17 WMDs recognized that it is in the public interest that they engage in the
18 joint goal to ensure efficient and conservative utilization of water resources
19 in Florida, and that a joint, cooperative effort is necessary to implement an
20 effective state-wide water conservation policy. The MOU memorializes the
21 common objectives, principles and responsibilities of each agency in order to
22 implement an effective state-wide water conservation policy.

23 Q. What are the common objectives of the two agencies as they relate to
24 public water systems?

25 A. The common objectives include, but are not limited to:

- 1 (a) fostering conservation and the reduction of withdrawal demand of
2 ground and surface water through, among other measures, employment
3 of conservation promoting rate structures, maximization of reuse
4 of reclaimed water, and through customer education programs;
- 5 (b) to effectively employ the technical expertise of the WMDs
6 regarding water resource development and water resource
7 management, and to employ Commission expertise in the economic
8 regulation of utilities for the promotion of efficient water
9 consumption in the public interest; and
- 10 (c) that the agencies shall exchange pertinent available information
11 regarding water systems experiencing water availability problems.

12 Q. How should an appropriate BFC allocation percentage be designed?

13 A. The appropriate BFC allocation percentage is one that permits the
14 utility to recover a significant share of its fixed costs while at the same
15 time sending customers the proper pricing signals to encourage them to control
16 their water usage. I will discuss this in greater detail later in my
17 testimony.

18 Q. Have you worked with the SJRWMD in this case to develop your recommended
19 percentage of costs recovered through the BFC of 36%?

20 A. Yes. Consistent with the MOU, I relied on Staff witness Jenkins'
21 technical expertise regarding the District's water resource management and
22 water supply concerns associated with Wedgefield. As discussed in his
23 testimony, Wedgefield is located where the District has identified that
24 traditional ground water resources will be inadequate to supply all water
25 demands up to and past the year 2020. In addition, Wedgefield's wells are

1 | located very close to the saline water/fresh water interface, where there is
2 | a heightened potential for saline water intrusion.

3 | For these reasons, Mr. Jenkins does not believe that the BFC/gallonge
4 | charge allocation percentages proposed by the utility will promote the level
5 | of conservation the District believes is necessary. Generally, the District
6 | discourages a BFC that generates more than 40% of total cost recovery.
7 | Therefore, using the 40% figure as a cap for recovery of costs through the
8 | BFC, I shifted a portion of the cost recovery burden from the BFC to the
9 | gallonge charge. Based on my analysis, I believe 36% is an appropriate
10 | percentage of the cost recovery burden to be recovered through the BFC.

11 | Q. Do you agree in theory that placing more of the cost recovery burden in
12 | the gallonge charge places the utility at risk for greater revenue
13 | instability?

14 | A. In theory, a move away from revenues generated through fixed charges to
15 | revenues generated through gallonge charges will increase the uncertainty
16 | about the revenue stream. In practice, however, the variability of revenue
17 | received exists within a continuum. For example, if the Commission were to
18 | set the BFC at zero, making the utility's revenue requirement totally
19 | dependent on the number of gallons sold, in months of extremely low usage
20 | there could be the risk that revenues generated might not cover fixed costs.
21 | This situation could place the utility at greater risk. At the other extreme,
22 | the Commission could set the BFC at 100% of the utility's revenue requirement
23 | and thereby eliminate any variability in revenue associated with usage.

24 | Q. Did you consider Wedgefield's potential for revenue instability in your
25 | analysis?

1 A. Yes, I did.

2 Q. Will placing 36% of the utility's cost recovery burden on the BFC place
3 the utility at a greater risk for revenue instability?

4 A. Yes. However, I believe the risk is insignificant compared to the
5 stronger conservation pricing signals gained by placing more of the cost
6 recovery burden in the gallonage charge.

7 Q. Have you prepared an analysis of this trade-off between shifting cost
8 recovery and improved conservation pricing signals?

9 A. Yes, I have. Exhibit FJL-1 is entitled "Cost Recovery Trade-Off." On
10 page 1 of my exhibit, I compare, based on illustrative revenue requirements
11 ranging from \$325,000 to \$400,000, the shift in cost recovery burden between
12 the utility's proposed 44% and my recommended 36%. For example, based on a
13 revenue requirement of \$325,000, the utility's proposed BFC allocation of 44%
14 would result in BFC revenues of \$143,000, compared to \$117,000 using my
15 recommended BFC allocation of 36%, yielding a cost recovery shift of \$26,000.
16 Similarly, based on a revenue requirement of \$400,000, the utility's proposed
17 BFC allocation of 44% would result in BFC revenues of \$176,000, compared to
18 \$144,000 using my recommended BFC allocation of 36%, yielding a cost recovery
19 shift of \$32,000. In each case, the cost recovery shift represents only 8%
20 of the total revenue requirement.

21 The analysis on page 2 of FJL-1 represents, for each of the illustrative
22 revenue requirements, the percentage increase in initial price that results
23 at different monthly usage levels. For example, at the \$325,000 revenue
24 requirement level, the price increase for customers using 20,000 gallons (20
25 kgal) of water is 46% based on the utility's proposed BFC allocation of 44%.

1 | while that customer would receive a 57% increase in price under my recommended
2 | allocation. At the \$400,000 revenue requirement level, the price increase for
3 | customers using 40 kgal of water is 119% based on the utility's proposal,
4 | while that customer would receive a 143% increase in price under my
5 | recommended allocation. As you can see, at all levels of consumption above
6 | 5 kgal, my recommended BFC allocation sends stronger conservation pricing
7 | signals than the allocation proposed by witness Nicholas. I believe the
8 | magnitude of the cost recovery shifts are insignificant compared to the
9 | resulting improved conservation pricing signals sent to customers, while at
10 | the same time minimizing the price increases for largely nondiscretionary use
11 | of 5 kgal or less.

12 | Q. You mentioned earlier that the appropriate BFC allocation percentage is
13 | one that permits the utility to recover a significant share of its fixed costs
14 | while also sending customers the proper conservation pricing signals. Does
15 | your recommended BFC allocation of 36% recover at least a significant share
16 | of the utility's fixed costs?

17 | A. Yes, it does. Exhibit FJL-2 is entitled "Coverage of Fixed Costs." In
18 | this exhibit I demonstrate that, at each of the illustrative revenue
19 | requirements used in Exhibit FJL-1, my recommended BFC allocation of 36%
20 | yields revenues sufficient to cover the utility's fixed costs. This exhibit
21 | is based on the fact that there will be a certain baseline level of water sold
22 | to customers during the year. I believe it is reasonable to assume this
23 | baseline level is represented by the sum of residential usage in the 0-10 kgal
24 | usage block plus water sold to the utility's general service customers. It
25 | is not necessary for 100% of the utility's fixed costs to be recovered solely

1 | through the BFC if a combination of the BFC and the revenues generated by this
2 | baseline level of consumption covers fixed costs, as is the case with
3 | Wedgefield. After fixed costs are recovered, it is entirely appropriate for
4 | the incremental variable costs to be recovered through the revenues generated
5 | by the number of gallons sold.

6 | To illustrate, the initial rates generating the revenues shown in
7 | Exhibit FJL-2 were calculated consistent with the inclining-block rate
8 | structure approved in Order No. PSC-00-1528-PAA-WU, issued August 23, 2000.
9 | The inclining-block rate structure has not been raised as an issue in this
10 | case. The revenues available to recover fixed costs shown in my exhibit
11 | include all BFC revenues, all General Service gallonage revenues, and
12 | Residential Service revenues generated by the first usage block of the rate
13 | structure. The utility's fixed costs to provide service of \$240,681 was
14 | provided in response to Staff's Second Set of Interrogatories No. 10. As you
15 | can see on page 1 of Exhibit FJL-2, at the \$325,000 revenue requirement level,
16 | the utility's proposed BFC allocation of 44% yields a surplus of 16%, or
17 | revenues greater than costs of \$39,053. The same analysis based on my
18 | recommended BFC allocation of 36% yields a surplus of 14%, or revenues greater
19 | than costs of \$32,620. In fact, at any of the illustrative revenue
20 | requirements, my recommended BFC allocation generates revenues sufficient for
21 | the utility to cover its fixed costs.

22 | Q. In closing, why is the BFC allocation of 36% you recommend more
23 | appropriate than the comparable figures of 56% the utility originally
24 | requested in its Minimum Filing Requirements or the 44% recommended by witness
25 | Nicholas?

1 A. My recommended BFC allocation of 36% approved in Order No. PSC-00-1528-
2 PAA-WU, issued August 23, 2000 is based upon a detailed analysis of the
3 utility's cost structure and its customers' usage patterns. It accomplishes
4 a balance of providing revenue stability while sending customers appropriate
5 conservation pricing signals. Furthermore, consistent with the Commission's
6 MOU with the WMDs, I have worked with the SJRWMD, relying on their technical
7 expertise regarding the District's water resource management and water supply
8 concerns associated with Wedgefield. My recommended BFC allocation of 36% is
9 endorsed by Staff witness Jenkins of the SJRWMD as a means of promoting water
10 conservation.

11 In contrast, as evident in the utility's responses to Staff's First
12 Request for Production of Documents Nos. 1-4, and as directly stated in the
13 utility's response to Staff's Third Set of Discovery, "Wedgefield's proposal
14 is not based on any analysis, studies, or research." In other words, while
15 my recommendation is based upon a balancing of the utility's financial
16 stability and generally accepted conservation principles, the utility's
17 position is purely subjective, and will not promote the level of conservation
18 the District believes is necessary.

19 Q. Does this conclude your testimony?

20 A. Yes.

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**COST RECOVERY TRADE-OFF:
DIFFERENCES IN BFC RECOVERY BASED ON
ILLUSTRATIVE REVENUE REQUIREMENTS**

<u>\$325,000</u>		Cost Recovery via
		<u>BFC Revenues</u>
BFC Allocation	44%	\$143,000
	36%	<u>\$117,000</u>
	Difference	<u>\$26,000</u>

<u>\$350,000</u>		Cost Recovery via
		<u>BFC Revenues</u>
BFC Allocation	44%	\$154,000
	36%	<u>\$126,000</u>
	Difference	<u>\$28,000</u>

<u>\$375,000</u>		Cost Recovery via
		<u>BFC Revenues</u>
BFC Allocation	44%	\$165,000
	36%	<u>\$135,000</u>
	Difference	<u>\$30,000</u>

<u>\$400,000</u>		Cost Recovery via
		<u>BFC Revenues</u>
BFC Allocation	44%	\$176,000
	36%	<u>\$144,000</u>
	Difference	<u>\$32,000</u>

**COST RECOVERY TRADE-OFF:
 44% v. 36% BFC ALLOCATION USING
 ILLUSTRATIVE REVENUE REQUIREMENTS**

Percentage Increase Over Current
 Rates Based On

\$325,000	Monthly Kgal Usage	44% BFC Allocation	36% BFC Allocation
	5	16%	12%
	10	25%	27%
	20	46%	57%
	30	66%	83%
	40	78%	98%
	50	86%	108%

\$350,000	Monthly Kgal Usage		
	5	25%	20%
	10	35%	37%
	20	57%	68%
	30	79%	96%
	40	92%	112%
	50	100%	123%

\$375,000	Monthly Kgal Usage		
	5	34%	29%
	10	44%	47%
	20	68%	81%
	30	91%	110%
	40	105%	128%
	50	114%	139%

\$400,000	Monthly Kgal Usage		
	5	43%	38%
	10	54%	56%
	20	80%	93%
	30	104%	124%
	40	119%	143%
	50	129%	156%

Source: Wedgefield Utilities, Inc. MFR Schedule E-14.

**COVERAGE OF FIXED COSTS:
 44% v. 36% BFC ALLOCATION USING
 ILLUSTRATIVE REVENUE REQUIREMENTS**

\$325,000

<u>44% BFC:</u>	Revenues Available to Recover Fixed Costs		Fixed Costs to Provide Service	Surplus of Revenues in Excess of Fixed Costs
	BFC Revenues	\$142,545		
	GS Gal Chg Revenues	\$16,108		
	RS Gal Chg Revenues Block 1	<u>\$121,081</u>		
		\$279,734	\$240,681	\$39,053
				16%

<u>36% BFC:</u>	Revenues Available to Recover Fixed Costs		Fixed Costs to Provide Service	Surplus of Revenues in Excess of Fixed Costs
	BFC Revenues	\$116,025		
	GS Gal Chg Revenues	\$18,437		
	RS Gal Chg Revenues Block 1	<u>\$138,839</u>		
		\$273,301	\$240,681	\$32,620
				14%

\$350,000

<u>44% BFC:</u>	Revenues Available to Recover Fixed Costs		Fixed Costs to Provide Service	Surplus of Revenues in Excess of Fixed Costs
	BFC Revenues	\$153,510		
	GS Gal Chg Revenues	\$17,306		
	RS Gal Chg Revenues Block 1	<u>\$130,229</u>		
		\$301,045	\$240,681	\$60,364
				25%

<u>36% BFC:</u>	Revenues Available to Recover Fixed Costs		Fixed Costs to Provide Service	Surplus of Revenues in Excess of Fixed Costs
	BFC Revenues	\$124,950		
	GS Gal Chg Revenues	\$19,835		
	RS Gal Chg Revenues Block 1	<u>\$149,064</u>		
		\$293,849	\$240,681	\$53,168
				22%

**COVERAGE OF FIXED COSTS:
 44% v. 36% BFC ALLOCATION USING
 ILLUSTRATIVE REVENUE REQUIREMENTS**

				Surplus of Revenues in Excess of Fixed Costs
\$375,000				
44% BFC:	Revenues Available to Recover Fixed Costs		Fixed Costs to Provide Service	
	BFC Revenues	\$164,475		
	GS Gal Chg Revenues	\$18,570		
	RS Gal Chg Revenues Block 1	<u>\$139,377</u>		
		\$322,422	\$240,681	\$81,741
				34%
36% BFC:	Revenues Available to Recover Fixed Costs			
	BFC Revenues	\$133,875		
	GS Gal Chg Revenues	\$21,233		
	RS Gal Chg Revenues Block 1	<u>\$159,826</u>		
		\$314,934	\$240,681	\$74,253
				31%
\$400,000				
44% BFC:	Revenues Available to Recover Fixed Costs			
	BFC Revenues	\$175,440		
	GS Gal Chg Revenues	\$19,768		
	RS Gal Chg Revenues Block 1	<u>\$149,064</u>		
		\$344,272	\$240,681	\$103,591
				43%
36% BFC:	Revenues Available to Recover Fixed Costs			
	BFC Revenues	\$142,800		
	GS Gal Chg Revenues	\$22,697		
	RS Gal Chg Revenues Block 1	<u>\$170,589</u>		
		\$336,086	\$240,681	\$95,405
				40%

Source: Wedgefield Utilities, Inc. MFR Schedule E-14; Response to Staff's Second Set of Interrogatories, No. 10.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

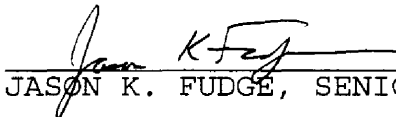
In re: Application for increase
in water rates in Orange County
by Wedgefield Utilities, Inc.

DOCKET NO. 991437-WU

FILED: May 31, 2001

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Direct Testimony of Frances J. Lingo was furnished to **Ben Girtman, Esquire**, 1020 East Lafayette Street, #207, Tallahassee, Florida 32301-4552, and **Charlie Beck, Esquire**, Office of the Public Counsel, c/o The Florida Legislature, 111 West Madison Street, Room 812, Tallahassee, Florida 32399-1400, by U.S. Mail, on this 31st day of May, 2001.



JASON K. FUDGE, SENIOR ATTORNEY

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