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BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of :
:
Application for a rate increase and :
increase in service availability charges: :
by SOUTHERN STATES UTILITIES, INC. for :
Orange-Osceola Utilities, Inc. in :
Osceola County, and in Bradford, Brevard:
Charlotte, Citrus, Clay, Collier, Duval, :
Highlands, Lake, Lee, Marion, Martin, :
Nassau, Orange, Osceola, Pasco, Putnam, :
Seminole, St. Johns, St. Lucie, Volusia :
and Washington Counties. :

DOCKET NO.
950495-WS

SIXTH DAY - MORNING SESSION

VOLUME 21

Pages 2207 through 2317

PROCEEDINGS: HEARING

BEFORE: CHAIRMAN SUSAN F. CLARK
COMMISSIONER J. TERRY DEASON
COMMISSIONER JULIA L. JOHNSON
COMMISSIONER DIANE K. KIESLING
COMMISSIONER JOE GARCIA

DATE: May 6, 1996

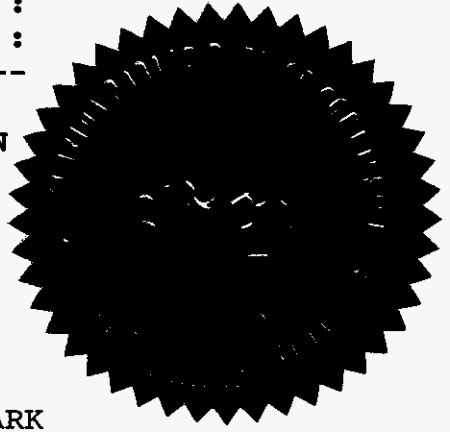
TIME: Commenced at 9:00 a.m.

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

REPORTED BY: ROWENA NASH HACKNEY
Official Commission Reporter
(904) 413-6736

APPEARANCES:

(As heretofore noted.)



WITNESSES

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	NAME																							
	HUGH GOWER																							
			Direct Examination By Mr. Armstrong																					
			Prefiled Direct Testimony Inserted																					
			Cross Examination By Mr. Twomey																					
			Redirect Examination By Mr. Armstrong																					
			Prefiled Direct Testimony Inserted																					
	Dr. DAVID D. DISMUKES																							
			Direct Examination By Mr. McLean																					
			Prefiled Direct Testimony Inserted																					
			Cross Examination By Mr. Hoffman																					
	PAUL A. KATZ																							
			Direct Examination By Mr. Beck																					
			Prefiled Direct Testimony Inserted																					
			Cross Examination By Mr. Feil																					
			Redirect Examination By Mr. Beck																					

EXHIBITS

2	NUMBER	ID.	ADMTD.
3	162 (Gower) HAG-1	2212	2241
4	163 (Guastella) JFG-1 and JFG-2	2243	2243
5	164 (Dismukes) The appendix and six schedules attached to the prefiled direct testimony of Dr. David Dismukes	2255	2284
7	165 (Katz) PAK-1 and PAK-2	2287	2312
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P R O C E E D I N G S

1
2 (Hearing reconvened at 9:00 a.m.)

3 (Transcript follows in sequence from
4 Volume 20.)

5 CHAIRMAN CLARK: We'll call the hearing to
6 order. As indicated on Saturday, we will start with
7 Mr. Gower. And at 10:30 we will adjourn and go to the
8 teleconferencing. That's why the lights are not on up
9 here, so we can see the screen.

10 Where's Mr. Twomey?

11 UNIDENTIFIED SPEAKER: He'll be right back.

12 CHAIRMAN CLARK: I think we'll go ahead and
13 go through the preliminary on Mr. Gower. Go ahead
14 Mr. Armstrong. Was he sworn?

15 Mr. Gower, stand and raise your right hand.

16 MR. ARMSTRONG: Madam Chairman, there's just
17 one more preliminary matter, and we are going to ask
18 the parties if Mr. Gower can have a date certain,
19 Friday morning, to come in for his rebuttal. He's
20 changing houses right now, and he'd like to have as
21 much time as he can this week to accomplish that.
22 I'll ask the parties at a break, and we'll let you
23 know later on.

24 CHAIRMAN CLARK: If would you follow that up
25 and let me know by the consensus of the parties.

1 MR. ARMSTRONG: Okay, thank you.

2 CHAIRMAN CLARK: With that, go ahead, and
3 let's go through the preliminaries.

4 - - - - -

5 HUGH GOWER

6 was called as a witness on behalf of Southern States
7 Utilities and, having been duly sworn, testified as
8 follows:

9 DIRECT EXAMINATION

10 BY MR. ARMSTRONG:

11 Q Mr. Gower, did you cause to be filed 16
12 pages of prefiled direct testimony in this proceeding?

13 A Yes, I did.

14 Q Do you have any changes to that testimony?

15 A I do have two corrections.

16 Q Could you please provide them now?

17 A On Page 9, Line 3 the words "is recovered"
18 should be crossed and replaced with "and CIAC
19 recovery." So the sentence reads: "Assumes a \$10,000
20 investment and CIAC recovery over five years."

21 Q And your second change?

22 A On Page 11, the number on Line 2, instead of
23 974,000 should be 1,573,728. The number on Line 4
24 instead of 478,000 should be 762,366.

25 Q Okay. And with those corrections, if I

1 asked you the questions contained in your direct
2 testimony, would your answers be the same?

3 A Yes, they would.

4 MR. ARMSTRONG: Madam Chair, we request that
5 the 16 pages of prefiled direct testimony be
6 incorporated in the record as though read.

7 CHAIRMAN CLARK: The prefiled direct
8 testimony of Mr. Hugh P. Gower will be inserted in the
9 record as though read.

10 Q (By Mr. Armstrong) Mr. Gower, you are
11 sponsoring one exhibit, HAG-1; is that correct?

12 A That's correct.

13 CHAIRMAN CLARK: Madam Chair, I would like
14 to have HAG-1 --

15 CHAIRMAN CLARK: Give me those numbers
16 again?

17 MR. ARMSTRONG: HAG-1.

18 CHAIRMAN CLARK: That will be marked as
19 Exhibit 162.

20 (Exhibit No. 162 marked for identification.)
21
22
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25

1 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND ADDRESS.**

2 A. My name is Hugh Gower, and I am self-employed. My address is 195
3 Edgemere Way South, Naples, Florida 33999.

4 **Q. PLEASE STATE YOUR EDUCATIONAL AND PROFESSIONAL**
5 **BACKGROUND.**

6 A. I hold a bachelor of science degree in accounting and economics from the
7 University of Florida, and I am, or have been, registered as a certified
8 public accountant in Florida, Georgia, and several other states. I am a
9 member of the American Institute of Certified Public Accountants and
10 other professional organizations. Prior to retirement, I was a partner in
11 Arthur Andersen & Co. with whom I was engaged in the practice of public
12 accounting continuously for more than 30 years.

13 **Q. PLEASE DESCRIBE THE FIRM OF ARTHUR ANDERSEN & CO.**
14 **AND YOUR PARTICULAR EXPERIENCE.**

15 A. Arthur Andersen is among the largest international firms of independent
16 public accountants and serves as auditors for a major share of the electric,
17 gas and telephone, as well as a large number of the other utilities operating
18 in the United States. In addition to audits of financial statements, the firm
19 performs tax work and designs and installs accounting systems for
20 businesses of all types. The firm also provides expert testimony in
21 connection with public utility rate applications before federal and state
22 regulatory authorities on a variety of accounting, financial and rate-making

1 topics.

2 I was a partner in the Utilities and Telecommunications Division
3 of the Atlanta office of Arthur Andersen & Co., which serves as the
4 concentration office for the firm's regulated industries practice in the
5 southeastern United States. This area of the practice includes work for
6 electric, gas, telephone, water and sewer utilities, motor carriers and
7 airlines. I served as the southeastern area director of this practice for 17
8 years. I have had responsibility for supervising the work performed for
9 Arthur Andersen & Co. clients, the training of firm personnel, and
10 administrative matters. I have also had direct responsibility for the work
11 done by the firm for numerous clients in this area of the practice.

12 **Q. PLEASE DESCRIBE THE NATURE OF THE WORK YOU HAVE**
13 **PERFORMED WITH ARTHUR ANDERSEN & CO.**

14 **A.** By far, the greatest portion of my work has been devoted to the public
15 utilities industries, but I also have substantial experience with other
16 industries. I performed independent audits of public utilities, as a result
17 of which Arthur Andersen & Co. issued reports on the financial statements
18 of such companies, and I participated in and supervised work in connection
19 with audits of various statements, schedules and other data required either
20 annually or in connection with rate applications before federal or state
21 regulatory authorities. I have also supervised work in connection with the
22 issuance of billions of dollars of securities by public utilities. I

1 participated in management audits, the purpose of which was to assess
2 whether management systems and procedures promote economy and
3 efficiency of operations. I also participated in the development of
4 accounting and management information systems as well as operating
5 systems designed to promote close control over utility resources, such as
6 materials, fuel and construction costs. In addition, I directed the
7 preparation of financial forecasts or projections, conducted reviews of
8 financial forecasts and directed the development of financial forecasting
9 models.

10 I have directed depreciation studies which, based on the analysis of
11 utility plant investments, retirement experience, salvage and cost of
12 removal, developed equitable depreciation rates with which to effect capital
13 recovery during the service lives of the properties. I also developed plans
14 which were accepted by regulators as equitably assigning the future costs
15 of spent nuclear fuel disposal, nuclear plant decommissioning and fossil
16 plant dismantlement costs to customers receiving service, considering the
17 effects of inflation, the time value of money and other variables.

18 I have directed revenue requirement studies involving the analysis
19 of rate base, operating revenues and expenses as well as the analysis of
20 specific transactions or alternative rate-making treatment of various cost-
21 of-service components. I have also directed studies to determine the
22 proper assignment of cost of service between customer classes, regulatory

1 jurisdictions or between regulated and unregulated operations. I have and
2 do consult with public utilities and others regarding the economic effects
3 of business transactions or rate-making matters as well as the proper
4 accounting for the economic effects of such transactions or matters. I
5 participated in the preparation of Arthur Andersen & Co.'s position
6 statements on utility accounting and rate matters which were under
7 consideration by legislative bodies and regulatory agencies. I was a
8 representative of the American Institute of Certified Public Accountants on
9 the Telecommunications Industry Advisory Group ("TIAG") to the Federal
10 Communications Commission in connection with its adoption of its new
11 Uniform System of Accounts (Part 32). In this connection, I chaired the
12 Auditing and Regulatory Subcommittee of TIAG which dealt with issues
13 regarding compliance with generally accepted accounting principles
14 ("GAAP") when regulatory rate-setting practices are based upon methods
15 other than GAAP.

16 I have assisted clients in the preparation of testimony and exhibits
17 and have given expert testimony in cases before federal courts and federal
18 and state regulatory commissions.

19 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

20 **A.** The purpose of my testimony is to explain why Southern States has not
21 imputed CIAC (or service availability charges) anticipated to be collected
22 in the future beyond the test period against that portion of the plant

1 investment designated "margin reserve" included in rate base in this filing.

2 My testimony also shows:

- 3 • that Southern States is entitled to a return on the capital which
4 finances margin reserve plant until that capital is recovered;
- 5 • that imputing anticipated future CIAC collection against margin
6 reserve plant denies investors that opportunity;
- 7 • that imputing anticipated future CIAC collections by the
8 Commission is inconsistent with its treatment of other utilities in
9 whose cases no imputation of future capital recovery is made; and
- 10 • that assigning current customers the cost of carrying the
11 unrecovered investor-supplied capital which financed the
12 investment in margin reserve plant is appropriate.

13 **Q. DO YOU RECOGNIZE THAT THE COMMISSION HAS**
14 **CONSISTENTLY IMPUTED CIAC AGAINST MARGIN RESERVES**
15 **INCLUDED IN RATE BASE SINCE 1988 WHEN IT STATED ITS**
16 **POLICY IN ORDER NO. 20434?**

17 **A.** Yes, I do, but having reviewed the Commission orders dealing with CIAC
18 imputation in most (if not all) prior cases as well as the evidence presented
19 in several, I strongly believe that the prior records were not sufficiently
20 clear and the issue was confused. Therefore, I respectfully ask that careful
21 consideration be given to the matter in this case.

22 **Q. IS IT TRUE THAT BY NOT IMPUTING POSSIBLE FUTURE CIAC**

1 **COLLECTIONS AGAINST ITS MARGIN RESERVE INVESTMENT**
2 **IN THIS CASE, SOUTHERN STATES IS ASKING FOR A RETURN**
3 **ON PLANT INVESTMENTS PAID FOR BY CUSTOMERS?**

4 A. No, Southern States is not asking for a return on plant investment paid for
5 by the customers. What Southern States appropriately asks is the
6 opportunity to earn a fair return on investors' capital until that investment
7 has been recovered.

8 **Q. BUT IF CUSTOMERS IN THE FUTURE DO MAKE CIAC**
9 **PAYMENTS TO SOUTHERN STATES, WHAT INVESTORS'**
10 **CAPITAL IS THERE WHICH REQUIRES ANY RETURN?**

11 A. It is the capital supplied by investors to finance the construction of plant
12 prior to its being available to serve customers, and, after it is available,
13 until customers' demands grow to equal the service capacity of the plant
14 and CIAC payments are collected.

15 **Q. PLEASE EXPLAIN.**

16 A. It may be useful to state the obvious so that it can be put aside. It is well-
17 established that investors in utilities are entitled to both recovery of and
18 return on the capital they provide. In the case of investments in utility
19 plant, capital recovery has historically been effected through inclusion of
20 depreciation (or amortization) provisions in cost of service in a rational,
21 predictable manner over a period of years. Investors' capital which
22 requires a return is measured by the amount of undepreciated plant

1 investment and inclusion of this amount -- plant, less accumulated
2 depreciation times rate of return -- in cost of service provides investors the
3 opportunity to recover this as well.

4 **Q. HAVE YOU PREPARED AN EXHIBIT TO ILLUSTRATE CAPITAL**
5 **RECOVERY THROUGH DEPRECIATION?**

6 A. Yes, Exhibit 162(HAG-1) shows this in Figure A. This hypothetical
7 exhibit assumes a \$10,000 plant investment depreciated on a straight-line
8 basis over five years. At the beginning of the period, unrecovered investor
9 capital is \$10,000. This is reduced annually by ratable provisions for
10 depreciation included in cost of service. Each year, accumulated
11 provisions for depreciation ("accumulated capital recovery") reduce the
12 original capital investment until it has been fully recovered.

13 Over the five year useful life, the average unrecovered investor
14 capital is \$5,000. In other words, on average over the 5 year useful life,
15 investors would be entitled to a return on the \$5,000 unrecovered invested
16 capital (although, of course, this amount is different each year).

17 **Q. BUT ISN'T IT TRUE THAT TO THE EXTENT THAT**
18 **CUSTOMERS PAY CIAC CHARGES THERE IS NO INVESTOR**
19 **SUPPLIED CAPITAL TO BE RECOVERED OR WHICH CARRIES**
20 **A RETURN REQUIREMENT?**

21 A. No, it isn't true. That assertion loses sight of the fact that before
22 customers pay CIAC charges, investors first supply the capital to construct

1 new plant capacity and continue to finance that plant investment until it is
2 recovered through CIAC charges. In other words, just as with depreciation
3 provisions included in cost of service, CIAC charges are the vehicle by
4 which the recovery of investors' capital is effected. Until the capital
5 previously provided by investors is recovered by collection of CIAC
6 charges, any unrecovered capital investment requires a return. Neither
7 depreciation nor CIAC charges provide return on investor's capital.

8 Although the pattern of capital recovery which results from CIAC
9 charges is different than when capital recovery is handled through
10 depreciation, the investor capital which requires a return is measured by
11 the amount of plant investment in excess of CIAC collections at any point
12 in time, or over a period of time.

13 In the case of Southern States, it historically takes from one to ten
14 years to recover applicable plant investments through CIAC charges. Until
15 the capital financing such investments is recovered by CIAC charge
16 collections, such capital is entitled to a return and should be included in
17 rate base without imputation of offsetting future CIAC collections so that
18 investors will have that opportunity.

19 **Q. CAN YOU ILLUSTRATE HOW UNRECOVERED INVESTOR-**
20 **SUPPLIED CAPITAL WHICH REQUIRES A RETURN EXISTS**
21 **WHEN PLANT COSTS ARE RECOVERED THROUGH CIAC (OR**
22 **SERVICE AVAILABILITY CHARGES) INSTEAD OF**

1 **DEPRECIATION?**

2 A. Yes. Figure B on Exhibit 162(HAG-1) illustrates this as well. This
3 hypothetical assumes a \$10,000 investment ^{and CIAC recovery} ~~is recovered~~ over five years.
4 The amount recovered is not ratable and varies from year to year. Based
5 on the original \$10,000 invested and the assumed CIAC charges, the
6 average unrecovered investor capital is \$7,500. In other words, on average
7 over the five year period, this is the amount on which investors would be
8 entitled to a return.

9 **Q. WELL, ISN'T IT TRUE THAT THE FAILURE TO IMPUTE CIAC**
10 **CHARGES ANTICIPATED TO BE COLLECTED OVER THE**
11 **PERIOD COVERED BY THE MARGIN RESERVE WILL RESULT**
12 **IN OVER-EARNING BY THE UTILITY?**

13 A. No, it will not. Rates will be set on the basis of a test period thoroughly
14 tested by all parties in the proceeding to provide assurance that revenues,
15 expenses, capital invested and all other elements of cost of service will be
16 representative of future conditions for which rates will be set. Absent
17 complete failure of this ratemaking process, over-earning due to lower than
18 expected investment in plant (margin reserve) capacity is unlikely. In fact,
19 Southern States' recent operating history shows quite the opposite of over
20 earnings. Since the Commission's order in Docket No. 920199-WS, actual
21 realized returns have been less than the authorized return.

22 On the other hand, the imputation of CIAC charges anticipated to

1 be collected beyond the end of the test period is bound to prevent the
2 utility from realizing its authorized return, at least on the capital which
3 finances the margin reserve plant capacity.

4 **Q. WHY IS THAT TRUE?**

5 **A.** Imputation of CIAC charges anticipated to be collected in future periods
6 beyond the end of the test period is the financial equivalent of assuming
7 that plant investments whose capital recovery is to be effected through
8 depreciation is already fully depreciated. Obviously, to assume that plant
9 which is, say 20% depreciated at the end of the test period, is instead
10 100% depreciated means there is no financial basis (cost less accumulated
11 depreciation) upon which a return could be provided in the cost of service
12 calculation. In simple terms, a rate of return times zero equals zero.

13 The fact that unrecovered investor-supplied capital exists regardless
14 of whether capital recovery is provided through depreciation provisions or
15 collection of CIAC charges is clearly illustrated on my Exhibit 162(HAG-
16 1). It is no more appropriate to assume that plant capacity investments not
17 yet recovered through CIAC charges have already been fully recovered
18 than it is to assume that accumulated depreciation accruals equal to 20%
19 of the related plant cost are instead equal to 100% of the plant cost.

20 **Q. DID THE IMPUTATION OF ANTICIPATED FUTURE CIAC**
21 **COLLECTIONS IN DOCKET NO. 920199-WS HAVE AN ADVERSE**
22 **EFFECT ON SOUTHERN STATES' REALIZED RETURNS?**

1 A. Yes, it did. In that case the Commission imputed anticipated future CIAC
2 ~~of~~ **\$ 1,573,728**
3 collections of \$974,596 against the actual investment in margin reserve
4 plant included in rate base. Actual post-test year CIAC collections during
5 the respective margin reserve periods amounted to ~~\$478,957~~ **\$ 762,366** -- less than
6 50% of the amount imputed.

6 **Q. DOESN'T THE INCLUSION OF THE ALLOWANCE FOR FUNDS**
7 **PRUDENTLY INVESTED ("AFPI") IN COLLECTIONS FROM**
8 **FUTURE CUSTOMERS PROVIDE A RETURN ON**
9 **UNRECOVERED INVESTOR-SUPPLIED CAPITAL FINANCING**
10 **MARGIN RESERVE PLANT?**

11 A. No, as Commission orders state, the AFPI charge is designed to allow
12 investors to recover a fair rate of return on prudently constructed plant
13 facilities excluded from rate base as "not being used and useful." Hence,
14 AFPI charges -- when and if collected -- provide no return on margin
15 reserve plant which is "used and useful."

16 **Q. ARE THERE OTHER INAPPROPRIATE ASSUMPTIONS MADE IN**
17 **APPLYING THE ADJUSTMENT TO REDUCE RATE BASE FOR**
18 **THE IMPUTATION OF CIAC ANTICIPATED TO BE COLLECTED**
19 **AFTER THE END OF THE TEST PERIOD?**

20 A. Yes. The way this adjustment has been applied in other cases carries an
21 implicit assumption that the CIAC funds collected have not been, or will
22 not be, reinvested in the utility operations.

1 **Q. PLEASE EXPLAIN.**

2 A. Based on data from prior cases, it appears that the CIAC imputation
3 adjustment was based upon the service availability charges times the
4 number of ERC's implicit in the margin reserve plant investment. These
5 amounts -- up to the limit of the net margin reserve plant -- increased
6 accumulated actual CIAC collections offset against the plant component
7 of rate base. No accounting for the uses of the funds which the assumed
8 CIAC collection would provide was reflected in the CIAC imputation
9 adjustment. The failure to account for the use of the assumed CIAC
10 collections implies that the funds were not, or will not be, reinvested in the
11 utility operations.

12 **Q. WHY IS THIS AN INAPPROPRIATE ASSUMPTION?**

13 A. In the case of Southern States, at least, CIAC funds collected have been
14 included with other corporate funds and used to pay for operating
15 expenses, plant construction costs, or for other normal uses in carrying on
16 the utility business. Since the Commission insists on the balance sheet
17 method to construct other components of rate base, fairness and
18 consistency suggests that if a CIAC imputation is made, it should account
19 for the entire transaction in a manner which correctly reflects the actual
20 practices of the utility. Clearly, application of this adjustment in (at least)
21 some prior cases has been based on inappropriate assumptions. Previous
22 applications of the CIAC imputation adjustment also have an implicit

1 unwarranted assumption that additional margin reserve capacity serves only
2 new customers.

3 **Q. BUT ISN'T IT CORRECT THAT THE PLANT CAPACITY**
4 **REPRESENTED BY THE "MARGIN RESERVE" IS AVAILABLE**
5 **TO SERVE FUTURE CUSTOMERS EXCLUSIVELY?**

6 A. No. The margin reserve capacity is available to serve both increases in
7 consumption by existing customers as well as for any new customers. The
8 association of margin reserve with only new customers connecting to the
9 system appears to be a common misconception based on transcripts of
10 earlier testimony as well as wording used in certain prior Commission
11 orders, probably due to the margin reserve calculation being based on
12 increased consumption expressed as "Equivalent Residential Connections
13 (ERC's")."

14 But the fact is that when the utility calculates expected growth over
15 the period covered by the margin reserve to be, for example, 1000 ERCs,
16 it does not mean that the utility expects 1000 new service connections.
17 Rather, it means that over the margin reserve period, the utility expects an
18 increase in consumption from present and new customers, the total volume
19 of which would equal the consumption of 1000 average residential
20 customers.

21 Imputation of future anticipated CIAC collections against margin
22 reserve plant investments as done in a number of previous cases,

1 improperly insulates present customers completely from any responsibility
2 whatsoever for return on investor capital which finances that plant. This
3 treatment is vividly inconsistent with the Commission's treatment of
4 electric, gas or telephone companies whose plant has the capacity to serve
5 future increases in sales.

6 **Q. HOW IS THE IMPUTATION OF ANTICIPATED FUTURE CIAC**
7 **COLLECTIONS FOR WATER AND WASTEWATER UTILITIES**
8 **INCONSISTENT WITH THE TREATMENT OF OTHER UTILITIES**
9 **BY THE COMMISSION?**

10 A. As my testimony has previously shown, whether capital recovery is
11 provided through CIAC collections or depreciation provisions, it occurs
12 over a period of time measured in years. In no case of which I am aware
13 has this (or any other) commission imputed additional accumulated
14 depreciation to electric, gas or telephone utilities because actual plant
15 investments in service had the capacity to -- and likely would in the future
16 -- serve more customers or increased sales to existing customers.

17 **Q. IF THE COMMISSION AGREES WITH SOUTHERN STATES'**
18 **PROPOSAL AND DOES NOT IMPUTE CIAC COLLECTIONS ON**
19 **MARGIN RESERVE PLANT, DOESN'T THIS SHIFT THE ENTIRE**
20 **CAPITAL RECOVERY BURDEN TO PRESENT CUSTOMERS?**

21 A. No. Present customers would have responsibility only for return on capital
22 which finances the margin reserve plant until that capital is recovered.

1 This is perfectly appropriate since having that capacity available provides
2 benefits to current customers and investors are entitled to a return
3 currently.

4 **Q. WHY ARE INVESTORS ENTITLED TO A RETURN ON MARGIN**
5 **RESERVE PLANT CURRENTLY?**

6 A. Aside from the obvious -- that the plant is "in-service" and does benefit
7 current customers -- is the fact that the risk of capital recovery through
8 CIAC charges remains on investors. History shows that not all potential
9 new customers materialize and pay CIAC charges.

10 This risk is heightened by the fact that the needed return on
11 invested capital for a period, if not then recovered, cannot be recaptured
12 in the future. Fairness dictates that prudent investments made to meet
13 public service obligations have a reasonable opportunity to earn a fair
14 return. This opportunity would be provided by including margin reserve
15 plant investments in rate base without imputation of anticipated future
16 CIAC collections.

17 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

18 A. The inclusion of Southern States' investment in margin reserve plant
19 without imputation of anticipated future CIAC collections in rate base is
20 necessary and appropriate to provide investors an opportunity to earn a
21 return on their capital until it is recovered.

22 It is appropriate that investors receive the return on capital currently

1 in view of the inherent risks not compensated for by AFPI charges.

2 It is also appropriate that current customers provide this return
3 through rates since they receive benefits from the margin reserve plant.

4 Finally, inclusion of margin reserve plant without imputation of
5 anticipated future CIAC collections is necessary so that Southern States'
6 investors will be treated fairly in regard to capital recovery compared to
7 investors in electric, gas or telephone utilities.

8 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

9 **A. Yes.**

1 MR. ARMSTRONG: Thank you, Madam Chair.

2 Q (By Mr. Armstrong) Mr. Gower, do you have a
3 summary of your testimony?

4 A Yes.

5 Q Could you provide that at this time?

6 A Yes. That Southern States has not imputed
7 CIAC or service availability charges anticipated to be
8 collected in the future offset that portion of the
9 plant investment designated as margin reserve and that
10 Southern States proposed treatment is in opposition to
11 the Commission's previous decisions. However, we
12 respectfully request that the Commission consider in
13 this case a number of misconceptions that have taken
14 place over a period of time.

15 The first misconception is that by not
16 imputing service availability collections, Southern
17 States is not asking for a return on capital by
18 customers. What Southern States is asking for is the
19 opportunity to earn a fair return on capital supplied
20 by investors until that investment is recovered. And
21 we feel that it is established in utility regulation,
22 that the Utility is entitled to capital recovered
23 until it is provided.

24 The second misconception is the collection
25 of service availability charges doesn't provide a

1 return on capital. What it is is a vehicle to provide
2 return on capital. In that sense, it is similar to
3 depreciation. On my exhibit which has just been
4 marked Exhibit 162, I think, makes that more clear.

5 The first portion of that exhibit
6 illustrates recovery of invested capital through
7 depreciation, and the second portion illustrates the
8 recovery through the collection of service
9 availability charges.

10 Referring to that exhibit, Figure A assumes
11 an investment of \$10,000 recovered over a five-year
12 period through straight-line depreciation. In that
13 case, over the five-year period, the unrecovered
14 investor supplied capital is measured by the cost of
15 the plant, less accumulated depreciation, which over
16 the five-year period averages \$5000. And over the
17 five-year period on average, investors are entitled to
18 a return on \$5000.

19 By contrast, when the recovery of capital is
20 provided through the collection of service
21 availability charges, the pattern of recovery of the
22 capital is not ratable as it is with depreciation, but
23 it does occur. And that's illustrated in Figure B.
24 In that case the investor-supplied capital which
25 requires a return is measured by the cost of the

1 plant, less the accumulated collection of the service
2 availability charges.

3 In this hypothetical illustration, I've
4 assumed a \$10,000 investment and service availability
5 collections over a five-year period. And based on
6 this hypothetical, the average unrecovered investor
7 supplied capital is 7,500. And that's the amount of
8 capital that requires a return.

9 Both depreciation and the collection of
10 service availability charges provide for recovery of
11 investor supplied capital. Neither provides a return
12 on investors' capital. That average unrecovered
13 investors' supplied capital, whether recovered through
14 depreciation or the service availability charges,
15 needs to be in rate base so that the investors will
16 have an opportunity to earn a return on it. The
17 imputation of future service availability collection
18 which has been made in the past prevents that from
19 happening.

20 The third misconception which has supported
21 the notion of imputation is that the margin reserve
22 plant is included in rate base to serve new customers
23 and, therefore, present customers should pay nothing.
24 That is a misconception. The margin reserve is an
25 amount of plant capacity available to meet the peak

1 demands of present customers as well as the demands
2 placed on the system from new customers. The fact is
3 that the present customers do benefit from Southern
4 States having an amount of plant which is able to meet
5 more than their bear minimum service requirements.
6 And so it's fair that they pay something, and that
7 something is the return.

8 In summary, the inclusion of the margin
9 reserve plant investment in rate base without offset
10 of anticipated future post-test period collections of
11 service availability charges is the entirely
12 appropriate and correct method of allowing Southern
13 States a return on the investors' capital. It does
14 not change the recovery of the capital, only provides
15 the opportunity for a return.

16 In the imputation of future post-test-period
17 collections of service availability charges prevents
18 that from happening and, therefore, should be
19 discontinued. That concludes my summary.

20 Q Thank you, Mr. Gower.

21 MR. ARMSTRONG: The witness is available for
22 cross.

23 CHAIRMAN CLARK: Mr. McLean.

24 MR. MCLEAN: No questions.

25 CHAIRMAN CLARK: Mr. Twomey.

1 MR. TWOMEY: Yes, ma'am.

2 CROSS EXAMINATION

3 BY MR. TWOMEY:

4 Q Good morning, Mr. Gower.

5 A Good morning.

6 Q You said in your summary and you state on
7 Page 5 beginning at Line 17 that you recognize that
8 SSU's proposal that you are testifying in support of
9 here has been considered by the Commission previously
10 and rejected; isn't that correct?

11 A That's correct. In numerous cases,
12 Mr. Twomey.

13 Q Isn't it true that the adoption of this
14 proposal which you are supporting by the Commission
15 will -- all other things kept equal, will increase the
16 revenue requirement in this case?

17 A It will increase it by comparison to the
18 previous practice. It does not increase it in
19 comparison to the requirement which actually exists.

20 Q Would that be an explanation followed by a
21 yes? I'm sorry, is the answer to my question yes?

22 A With that explanation, the answer is yes.

23 MR. TWOMEY: Thank you very much.

24 CHAIRMAN CLARK: Staff.

25 MS. O'SULLIVAN: Staff has no cross.

1 CHAIRMAN CLARK: Redirect? Commissioners?
2 Redirect?

3 MR. ARMSTRONG: There is just one redirect
4 question of Mr. Gower.

5 **REDIRECT EXAMINATION**

6 BY MR. ARMSTRONG:

7 Q And in the portion of the testimony which is
8 referred to regarding the prior cases and the past
9 confusion of the Commission and the impact on revenue
10 requirement, it was your statement in response to
11 Mr. Twomey that not imputing the CIAC will allow the
12 reflection of the proper revenue requirement?

13 A That's correct.

14 Q Now that confusion -- is there any portion
15 of those prior orders which you've reviewed regarding
16 the treatment of CIAC and the other utility industries
17 in Florida which cause that confusion?

18 MR. TWOMEY: I object. I believe I only
19 asked Mr. Gower two questions, answers to both which
20 were relatively short. I think it's beyond the scope
21 of cross.

22 CHAIRMAN CLARK: Mr. Armstrong?

23 MR. ARMSTRONG: It's my opinion that the
24 question was made and the answer was given in terms of
25 the proper revenue requirements being demonstrated in

1 this case by the nonimputation of CIAC, the portion
2 the testimony referenced was with regard to the
3 confusion. And I believe by that reference,
4 Mr. Twomey was attempting to elicit this Commission's
5 understanding that the prior orders in this case were
6 appropriate. I think by trying to elicit that kind of
7 information by this witness, my redirect is an
8 appropriate response.

9 CHAIRMAN CLARK: What is your question?

10 MR. ARMSTRONG: The reference is to the
11 confusion. And the answer was regarding the
12 appropriate level of revenue requirements needing to
13 be determined without an imputation of CIAC. And my
14 question to him was if he was aware of the reference
15 that he was making to the confusion in those prior
16 orders which the Commission relied upon in --

17 CHAIRMAN CLARK: I'm having trouble
18 following why it is appropriate redirect.

19 MR. ARMSTRONG: It would be our position
20 that this would be appropriate redirect because the
21 reference is made to the Commission's prior orders.

22 CHAIRMAN CLARK: In his testimony, his
23 direct testimony?

24 MR. ARMSTRONG: In his testimony. Right.
25 And Mr. Twomey is eliciting -- he referred to that

1 portion of the testimony and attempted to elicit from
2 Mr. Gower whether or not he believed in contradiction
3 to the fact that there was some confusion in those
4 prior orders that they were appropriate by not
5 imputing that CIAC because the revenue requirement
6 would go up.

7 CHAIRMAN CLARK: Mr. Twomey?

8 MR. TWOMEY: I don't think I did any such
9 thing, Madam Chair. My question to him was merely to
10 ask him didn't he recognize that the Commission had on
11 previous occasions rejected this proposal. And he
12 said yes. I didn't talk about -- irrespective of what
13 his direct testimony talked about, I didn't talk about
14 confusion or --

15 CHAIRMAN CLARK: Okay. You asked him if he
16 recognized that it was in conflict with the previous
17 decisions?

18 MR. TWOMEY: Yes.

19 CHAIRMAN CLARK: And your question was?

20 MR. ARMSTRONG: It related to those
21 previous -- what was it that was in conflict with the
22 previous decisions, and specifically this talks about
23 the confusion in those previous decisions. And I just
24 asked him if he could explain what he meant by the
25 confusion in those previous decisions which caused the

1 conflict. That's simply my question.

2 CHAIRMAN CLARK: I'll allow the question.

3 MR. ARMSTRONG: Thank you, Madam Chair.

4 Q (By Mr. Armstrong) Could you please
5 identify that confusion?

6 A The issues which I believe were the source
7 of confusion in previous cases were, number one, that
8 margin reserve plant was dedicated to serving only new
9 customers. The orders and the transcripts which I
10 read time and time again referred to margin reserve
11 plant as included in rate base to be available to
12 serve new customers. And that clearly is not the
13 case; it's available to serve increased demands from
14 present customers as well as the demands that new
15 customers may place on the system. And I don't think
16 that issue was clear, nor do I think it was clear at
17 all that by imputing post-test-period collections of
18 availability charges, the amount of investor supplied
19 capital as of the period was understated. Those were
20 the two principal issues that I think were confused.

21 Q Did you also -- might you have recognized in
22 the prior orders any reference to the CIAC collection
23 issue regarding other utility industries in Florida?

24 MR. TWOMEY: Objection. I asked two
25 questions.

1 CHAIRMAN CLARK: Mr. Armstrong, I think you
2 are going beyond the cross examination at this point.

3 MR. ARMSTRONG: Thank you, Madam Chair.

4 COMMISSIONER DEASON: Madam Chair, let me
5 ask one question.

6 CHAIRMAN CLARK: You may.

7 COMMISSIONER DEASON: On Exhibit 162,

8 Mr. Gower --

9 WITNESS GOWER: Yes, sir.

10 COMMISSIONER DEASON: -- you're assuming a
11 five-year useful life for this \$10,000 investment.

12 MR. GOWER: In Figure A, that's correct.

13 COMMISSIONER DEASON: You're making no
14 assumption on useful life in Figure B.

15 MR. GOWER: No, I did not. That's correct,
16 Commissioner.

17 COMMISSIONER DEASON: Are you also assuming
18 that there is a 50% CIAC level to be accomplished for
19 that \$10,000 investment in Figure B?

20 MR. GOWER: When you say 50% to be
21 accomplished, you are referring to the target recovery
22 percentage?

23 COMMISSIONER DEASON: Yes.

24 MR. GOWER: No, sir, I made no assumption at
25 all. I merely attempted to illustrate here that the

1 pattern of collection is not smooth and ratable like
2 depreciation; but whatever the collection is, the
3 amount of capital that requires a return is the cost
4 of the plant, less the collection of the contributions
5 in A. That's all it purports to illustrate.

6 COMMISSIONER DEASON: Well, I understand.
7 If you were to assume that there was going to be 100%
8 CIAC collected in that five-year period, even though
9 it may be stair stepped, the effect of the slope of
10 the line would be the same as in Figure A, would it
11 not?

12 MR. GOWER: Could you restate that for me?
13 I'm not sure I understood the drift of the question.

14 COMMISSIONER DEASON: Sure. In Figure B, if
15 you were to assume at the end of five years there was
16 going to be 100% CIAC collected, the slope of that,
17 the average slope of that line would be the same as in
18 Figure A, would it not?

19 MR. GOWER: I understand your question now.
20 It clearly could be, but it depends on the
21 year-by-year collections.

22 Q Okay. Thank you.

23 MR. ARMSTRONG: Madam Chair, we just have
24 one redirect to that question.

25 CHAIRMAN CLARK: Yes.

1 MR. ARMSTRONG: Thank you.

2 Q (By Mr. Armstrong) Considering Commissioner
3 Deason's question, if you were to assume full recovery
4 of that CIAC in that five-year period and we reverted
5 then and said, yes, it would be consistent with what
6 we see in Figure A, tell me what that would indicate
7 in terms of the level of investment which would remain
8 and need to be -- a return would need to be recovered
9 on?

10 A If Figure B, the recoveries in Figure B were
11 arithmetically equivalent to the depreciation
12 recoveries in Figure A, then the average unrecovered
13 capital for Figure B would be \$5,000 and that would be
14 the amount of capital which would need to be in rate
15 base in order to provide the Company an opportunity
16 for a return.

17 Q And what is the historic experience in terms
18 of the recovery of that CIAC during the margin period?

19 A Well, after the last case, it was less than
20 50% during the margin reserve period.

21 MR. ARMSTRONG: Thank you, Madam Chair.

22 CHAIRMAN CLARK: Exhibits?

23 MR. ARMSTRONG: The Company moves Exhibit
24 162.

25 CHAIRMAN CLARK: Without objection, Exhibit

1 162 will be entered in the record. Thank you,
2 Mr. Gower. You are excused until Friday.

3 (Exhibit No. 162 received in evidence.)

4 (Witness Gower excused.)

5 - - - - -

6 MR. ARMSTRONG: Madam Chair, if I may, the
7 Company went through some expense bringing Mr. Gower
8 here last Friday, paid for him to be here over the
9 weekend, I would just ask if the parties have no
10 questions for a witness, particularly an outside
11 witness, if they could let us know. Or if they have
12 two questions, I could have stipulated to the
13 questions asked by Mr. Twomey. If they could please
14 let us know so we don't have to incur that expense,
15 I'd appreciate it.

16 MR. TWOMEY: That's fine. But, I mean, I
17 had two questions. I'm sorry to interrupt. I'll be
18 happy to consider stipulating to witnesses and so
19 forth. The Company has offered generously on two
20 occasions to stipulate publicly to the Chair without
21 bothering to consult me beforehand. And if
22 Mr. Armstrong had asked me, I'd consider it.

23 CHAIRMAN CLARK: Mr. Twomey, he's asking you
24 now, and he's asking all the parties. I would
25 appreciate it, too, so we can have a better idea of

1 how we can schedule the witnesses. I would appreciate
2 it. And with that, I would give a general instruction
3 to everyone to look over the witnesses that are left
4 remaining. If you have no questions for those
5 witnesses, please communicate it to the party whose
6 witness it is and make an attempt to stipulate those
7 witnesses that we can. Okay?

8 We need to get Mr. Guastella's testimony
9 into the record, and it may be well to take a minute
10 or two and get that done now.

11 MR. ARMSTRONG: Madam Chair, by agreement to
12 the parties, the prefiled direct testimony of John
13 Guastella is being incorporated into the record as
14 though read.

15 CHAIRMAN CLARK: Let the record reflect the
16 prefiled direct testimony of Mr. John F. Guastella is
17 inserted in the record as though read.

18 MR. ARMSTRONG: And that consists of eight
19 pages, Madam Chair. Also, Mr. Guastella has attached
20 to his prefiled direct testimony two exhibits labeled
21 JFG-1 and JFG-2. And we request that those be
22 identified and moved into evidence at this time.

23 CHAIRMAN CLARK: They will be identified as
24 Exhibit 163, and they will be admitted in the record
25 without objection.

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(Exhibit No. 163 marked for identification
and received in evidence.)

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. John F. Guastella, P.O. Box 371, Peapack, New Jersey.

3 **Q. WHAT IS YOUR OCCUPATION?**

4 A. I am President of Guastella Associates, Inc. I am a licensed Professional
5 Engineer, and I have been actively engaged in matters involving utility
6 valuations, management, rates and service for thirty years. I formed
7 Guastella Associates in 1978 to provide consulting services, specializing
8 in water and sewer utilities.

9 **Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND**
10 **PROFESSIONAL EXPERIENCE.**

11 A. I graduated from Stevens Institute of Technology in June of 1962,
12 receiving a degree in Mechanical Engineering. I have completed courses
13 in utility regulation sponsored by the National Association of Regulatory
14 Utility Commissioners (NARUC) and conducted by the University of
15 South Florida, Florida Atlantic University, the University of Utah and
16 Florida State University.

17 I was employed by the New York State Public Service Commission
18 for sixteen years from 1962 to 1978. With the exception of two years in
19 which I was involved in the regulation of electric and gas utilities, my time
20 with the New York Commission was devoted to the regulation of water
21 utilities. After a series of promotions during the years 1962 to 1970,
22 attained through competitive examinations, I was promoted to Chief of

1 Rates and Finance in the Commission's Water Division. In 1972 I was
2 made Assistant Director of the Water Division. In 1974 I was appointed
3 by the Chairman of the Commission as Director of the Water Division, a
4 position I held until my resignation from the Commission in August of
5 1978.

6 My duties with the Commission included the performance and
7 supervision of various engineering and economic studies concerning
8 valuation of utility property, financing, rates and service of electric, gas
9 and water utilities. While in the Water Division, I either examined or
10 supervised the examination of the books and records of literally hundreds
11 of water utilities.

12 As Director of the Water Division, I was responsible for the
13 regulation of more than 450 water companies in New York State, heading
14 a professional staff consisting of 32 engineers and three technicians. One
15 of my primary duties was to advise the Commission during its adjudication
16 of formal proceedings, as well as other matters. In the course of those
17 deliberations, testimony, exhibits and briefs submitted in formal
18 proceedings were reviewed and analyzed. My duties and responsibilities
19 covered such subjects as the reasonableness of investments in utility plant,
20 appropriate depreciation, contributions in aid of construction, advances in
21 aid of construction, construction work in progress, working capital,
22 amortizations, rate base, revenue level, operation and maintenance

1 expenses, taxes, cost of capital, fundable capital, financing, capital
2 structure, rate of return, rate design, rate structure, quality of service, and
3 in general, all aspects of utility valuation, rate setting and service.

4 Another major responsibility was the review of all proposed
5 legislation affecting water utilities in New York and the subsequent
6 preparation of recommendations for use by the governor or the legislature
7 in considering such legislation. I also made legislative proposals and
8 participated directly in drafting bills that were enacted: one expanded the
9 New York Commission's jurisdiction with respect to the regulation of the
10 service provided by small water companies and another dealt specifically
11 with rate regulations and financing of developer-related water systems.
12 During my employment with the New York Commission, I handled or
13 supervised the handling of thousands of consumer complaints by
14 individuals, corporations and municipal, governmental and political
15 officials.

16 Concurrently with my position as President of Guastella Associates,
17 Inc., I served as President of Country Knolls Water Works, Inc. from 1987
18 to 1991, directing the management and operation of this utility which
19 served some 5,000 customers.

20 I have prepared appraisals and valuations of utility property,
21 depreciation studies, rate analyses, cost allocation and rate design studies,
22 and management and financial analyses. I have provided consulting

1 services for municipal and investor-owned water and sewer utilities, as
2 well as gas utilities and solid waste collection and disposal companies.

3 **Q. BEFORE WHAT REGULATORY AGENCIES AND MUNICIPAL**
4 **JURISDICTIONS HAVE YOU PREVIOUSLY PRESENTED**
5 **EXPERT TESTIMONY?**

6 A. I have testified as an expert witness in the states of Connecticut, Florida,
7 Illinois, Massachusetts, Nevada, New Jersey, New York, North Dakota,
8 Texas, Ohio, Pennsylvania, Virginia and Rhode Island.

9 **Q. BRIEFLY STATE YOUR ACTIVITIES IN CONNECTION WITH**
10 **PROFESSIONAL ORGANIZATIONS AND ASSOCIATIONS.**

11 A. I served as Vice-Chairman of the Staff-Committee on Water of the
12 National Association of Regulatory Utility Commissioners (NARUC).
13 While on that committee, I prepared a 95-page instruction manual entitled,
14 "Model Record-Keeping Manual for Small Water Companies," which was
15 published by the NARUC. The manual describes in detail the kinds of
16 operating and accounting records that should be kept by small water
17 utilities, with instructions on how to use those records in order to properly
18 operate a water system and properly keep account of the cost of providing
19 service.

20 Since 1974 I have prepared the rate case study material, assisted in
21 the coordination of the program and served as an instructor at the Annual
22 Fall Seminar on Water Rate Regulation sponsored by the NARUC and

1 conducted by the University of South Florida, Florida Atlantic University,
2 University of Utah, and currently Florida State University. This seminar
3 is recognized as being one of the best in the country for teaching rate-
4 setting principles and methodology. It is attended by representatives of
5 regulatory agencies, utilities, engineering, accounting, economic and law
6 firms throughout the country. In 1980, as a special consultant to NARUC,
7 I assisted in the establishment of another similar seminar which has been
8 held annually in the spring in the western United States.

9 I served as an instructor and panelist in a seminar on water and
10 sewer utility regulation conducted by the Independent Water and Sewer
11 Companies of Texas. As a member of the National Association of Water
12 Companies (NAWC), I serve on its Rates and Revenue Committee and
13 Small Company Committee. I am a member of the American Water
14 Works Association and served on its Water Rates Committee, and assisted
15 in the preparation of the AWWA Rates Manual, Third Edition. I have also
16 served on a joint committee on rate design composed of staff members of
17 NARUC and NAWC. In connection with my serving on these committees,
18 and in connection with cost allocation and rate design studies I have
19 performed in the course of my work, I have participated in decisional
20 meetings to determine proper engineering and construction criteria in
21 relation to costs in the design of water and sewer systems.

22 I have prepared and presented papers at a number of meetings of

1 the National Association of Water Companies, the National Association of
2 Regulatory Utility Commissioners, the New England Conference of Public
3 Utilities Commissioners, and at meetings of the Mid-America Regulatory
4 Conference, the Public Utility Law Section of the New Jersey Bar
5 Association, the Pennsylvania Environmental Council, the Southeastern
6 Association of Regulatory Utility Commissioners, and the New Jersey
7 Chapter of the American Water Works Association.

8 **Q. WHAT IS THE NATURE OF YOUR INVOLVEMENT IN THIS**
9 **PROCEEDING?**

10 A. I have been asked by SSU ("Company") to perform a cost allocation study
11 in order to determine a rate for raw water in connection with its Marco
12 Island facilities. I also was asked to testify with respect to the
13 development of an effluent reuse rate prepared in connection with
14 anticipated agreements with potential customers on Marco Island with
15 which the Company had been negotiating for the provision of effluent
16 reuse for irrigation purposes.

17 **Q. HAVE YOU PREPARED AN EXHIBIT WHICH CONTAINS YOUR**
18 **RAW WATER RATE STUDY?**

19 A. Yes, the study is attached as Exhibit ____ (JFG-1).

20 **Q. WOULD YOU PLEASE DESCRIBE THIS EXHIBIT?**

21 A. This exhibit contains an allocation of the Company's proforma 1996
22 revenue requirement components. The exhibit contains various schedules

1 and a narrative, which describe the allocations and the resultant raw water
2 rate.

3 **Q. WHAT RAW WATER RATE WAS PRODUCED BY YOUR STUDY?**

4 A. My study indicates that a raw water rate of \$1.75 per thousand gallons is
5 reasonable in order to reflect the costs associated with the supply and
6 transmission of raw water. This rate would recover only the costs
7 necessary to produce and transmit raw water from the Company's
8 mainland water sources. It does not include costs associated with
9 treatment and delivery of potable water to the Company's general service
10 customers.

11 **Q. HAVE YOU ALSO ATTACHED TO YOUR TESTIMONY AN**
12 **EXHIBIT WHICH SETS FORTH THE COST ALLOCATION AND**
13 **RATE STUDY WITH RESPECT TO EFFLUENT REUSE?**

14 A. Yes, the study is attached as Exhibit _____ (JFG-2).

15 **Q. WHAT WAS THE PURPOSE OF THAT STUDY?**

16 A. The effluent reuse rate study was performed in order to assist the
17 Company in its negotiations with potential effluent reuse customers.
18 Assuming the Company is able to enter into agreements to establish
19 general effluent reuse service for irrigation purposes, my study would
20 provide the basis for the rate for such service.

21 **Q. WOULD YOU PLEASE DESCRIBE THIS EXHIBIT?**

22 A. This exhibit contains an allocation of the Company's revenue requirement

1 components on the basis of its 1994 operations, adjusted to reflect a full
2 return on rate base. This exhibit also contains various schedules and a
3 narrative, which describe the allocations and the resultant effluent reuse
4 rate.

5 **Q. WHY DID YOU USE 1994 FIGURES FOR THIS STUDY?**

6 A. Not only were those the only complete figures available at the time of the
7 study, the Company had been negotiating with potential customers who
8 were considering whether or not the use of effluent would be an
9 economically feasible alternative to their current use of potable water for
10 irrigation purposes. In addition to the cost of effluent reuse water, each
11 of those potential customers would be contributing and/or providing
12 advance funding for a portion of the capital costs associated with the
13 installation of effluent transmission mains and related pumping and storage
14 facilities.

15 **Q. WHAT EFFLUENT REUSE RATE WAS PRODUCED BY YOUR**
16 **STUDY?**

17 A. My study produced an effluent reuse rate of \$0.87 per 1,000 gallons,
18 reflecting the costs and expenses associated with filtering, storage and
19 pumping effluent for reuse.

20 **Q. DOES THIS COMPLETE YOUR TESTIMONY AT THIS TIME?**

21 A. Yes.

1 MR. ARMSTRONG: Thank you, Madam Chair.

2 CHAIRMAN CLARK: All right. Now, we had
3 indicated we would start with the teleconferencing
4 witnesses, I think at 10:30; is that correct? All
5 right.

6 Mr. Twomey, can we go to Mr. Hansen at this
7 point?

8 MR. ARMSTRONG: Madam Chair, it was our
9 understanding that we had all agreed that your
10 witnesses would go after --

11 CHAIRMAN CLARK: Public Counsel's.

12 MR. ARMSTRONG: -- Public Counsel's
13 witnesses, so I don't have his cross examination here.

14 MR. TWOMEY: That's preferable for our
15 purposes.

16 CHAIRMAN CLARK: Then let me see. I think
17 that the next one we were supposed to put on was
18 Dr. Dismukes; is that correct?

19 MR. TWOMEY: That is correct.

20 CHAIRMAN CLARK: All right. Dr. Dismukes,
21 if you will come up, and we will swear you in. What
22 we will be doing is we will probably take a break at
23 quarter after 10:00 so we can get set up for the
24 teleconferencing, make sure we are ready to go on
25 that, and also to give us a break before we start on

1 the testimony of those witness.

2 MR. McLEAN: Dr. Dismukes, could you move
3 just one step to your left there, please, sir, so I
4 can see you, too. There you go, thank you.

5 CHAIRMAN CLARK: Ready? Thank you. You may
6 be seated.

7

- - - - -

8

DR. DAVID D. DISMUKES

9 was called as a witness on behalf of Citizens of the
10 State of Florida and, having been duly sworn,
11 testified as follows:

12

DIRECT EXAMINATION

13 BY MR. McLEAN:

14 Q Would you state your name, please, sir?

15 A David Dismukes.

16 Q Thank you, sir. By whom and in what
17 capacity are you employed?

18 A I am employed by the Louisiana State
19 University.

20 Q And in this case you appear under contract
21 with the office of Public Counsel; is that correct,
22 sir?

23 A Yes, sir.

24 Q Have you caused to be filed prefiled direct
25 testimony in the form of questions and answers?

1 A Yes, I have.

2 Q If I were to ask you the same questions as
3 you were asked then, would you provide the same
4 answers?

5 A Yes, I would.

6 Q Do you have any additions, deletions or
7 corrections to make to that testimony?

8 A No, I do not.

9 Q Thank you, sir.

10 MR. McLEAN: Madam Chairman, move
11 Dr. Dismukes' direct testimony into the record as
12 though read.

13 CHAIRMAN CLARK: The direct testimony of
14 Dr. David Dismukes will be inserted in the record as
15 though read.

16 Q (By Mr. McLean) And, Madam Chairman, I
17 forgot to ask the witness whether he has an appendix
18 attached to the direct testimony which reflects his
19 qualifications?

20 A Yes, I do.

21 MR. McLEAN: And, Madam Chairman, that
22 should follow the testimony of the record if you
23 please.

24 CHAIRMAN CLARK: Why don't we mark that as
25 part of the exhibit.

1 MR. McLEAN: That will be fine.

2 Q (By Mr. McLean) Dr. Dismukes, I understand
3 that you do have an exhibit; is that correct?

4 A Yes, I do.

5 Q And it has six schedules affixed?

6 A Yes, sir.

7 MR. McLEAN: Madam Chairman, may we have the
8 schedules and the appendix marked for identification.

9 CHAIRMAN CLARK: Yes. The appendix and the
10 six schedules attached to the prefiled direct
11 testimony of Dr. David Dismukes will be marked as
12 Composite Exhibit 164.

13 MR. McLEAN: Thank you, Madam Chairman.

14 (Exhibit No. 164 marked for identification.)
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1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

2 DOCKET NUMBER 950495-WS

3 DIRECT TESTIMONY OF DAVID E. DISMUKES, PH.D.

4 ON BEHALF OF THE CITIZENS OF THE STATE OF FLORIDA

5
6 Q. State your name and business address.7 A. My name is David E. Dismukes. My business address is the Louisiana State
8 University, Center for Energy Studies, One East Fraternity Circle, Baton, Rouge, Louisiana
9 70803-0301.

10 Q. What is your current occupation?

11 A. I am an assistant professor at the Louisiana State University.

12 Q. Have you prepared an appendix outlining your qualifications?

13 A. Yes, Appendix I was prepared for this purpose.

14 Q. What is the purpose of your testimony?

15 A. I have been retained by the Office of Public Counsel (OPC), on behalf of the
16 Citizens of the State of Florida (the Citizens), to review the repression, or price elasticity,
17 adjustments made by Southern States Utilities, Inc. (SSU or the Company).

18 Q. How is your testimony organized?

19 A. My testimony is organized into three parts. In the first section of my testimony I
20 discuss the relationship between repression and the price elasticity of demand. In the
21 second section of my testimony I present a number of standards which I believe to be
22 important in evaluating statistical models used in regulatory proceedings. In the third
23 section of my testimony, I present my primary and alternative recommendations.24 Q. Have you prepared any exhibits?
25

1 A. Yes, I have prepared one composite exhibit, Exhibit 164 (DED-1), consisting of 6
2 schedules.

3 Q. Would you summarize your primary recommendations?

4 A. Yes. I would like to recommend that the Commission not accept the repression
5 adjustment proposed by the Company because the statistical studies upon which these
6 adjustments rest do not meet adequate standards for regulatory use. These standards
7 include: (1) the applicability of the statistical model to the service territory in question; (2)
8 the parsimony, simplicity, and sensitivity of the statistical model to its specification and
9 alternative specifications; and (3) the explanatory power of the statistical model.

10 Q. Do you have any alternative recommendations?

11 A. Yes. The impact of the repression issue in this proceeding depends, in part, upon
12 the Commission's decision regarding the adoption of the Company's proposed weather
13 normalization clause (WNC). I have presented two alternative recommendations for the
14 Commission's consideration, both of which are dependent upon the decision made
15 concerning the WNC.

16
17 My first alternative recommendation assumes that the Commission accepts some version
18 of the WNC. Under this scenario, I recommend that the Commission split the Company's
19 short-run price elasticity on a 50-50 basis between ratepayers and the Company. I have
20 summarized the results from this recommendation on Schedule 6.

21
22 My second alternative recommendation assumes that the Commission rejects the WNC.
23 Under this scenario, I recommend that the Commission split the Company's long-run price
24 elasticity estimate on a 50-50 basis between ratepayers and the Company.
25

1 **Repression Adjustments and the Price Elasticity of Demand**

2 Q. Would you please explain how price elasticities can be used to determine
3 repression?

4 A. Yes. Elasticity estimates can be used to determine the degree of repression (or
5 stimulation) that may arise from a change in the price of a particular service in question.
6 Repression refers to the decreases in quantity demanded which arise from a proposed rate
7 increase, while stimulation refers to the increases in quantity demanded that result from a
8 proposed rate decrease. The price elasticities used in determining repression or stimulation
9 are simply the empirical observations which measure the magnitude with which consumers
10 change their consumption levels given a change in price. The stronger the elasticity
11 estimate -- the stronger the reaction.

12
13 As a hypothetical example, consider a -0.25 price elasticity estimate for residential water
14 demand. This elasticity estimate would entail that a one percent increase in the price of
15 water service would result in a 0.25 percent decrease in the quantity demanded. Given this
16 example, one can see that, under a proposed rate increase, the larger the elasticity estimate
17 (in absolute terms) the greater the repression estimate. The extent to which an elasticity
18 has been over or under estimated will determine the degree to which repression has been
19 over or under estimated.

20
21 In the past, the Commission has accepted the use of price elasticity estimates derived from
22 statistical models as a basis for determining repression or stimulation in the
23 telecommunications industry. The Commission has also noted the importance of making
24 such adjustments in the ratemaking process.

25

1 The inclusion of repression and stimulation can significantly influence the
2 estimate of the quantities demanded for a particular service, which, in turn,
3 can markedly affect the revenue effect of a proposed price change. With
4 rate of return regulation, repression and stimulation can materially affect the
5 magnitude of rate changes needed in other services to attain the revenue
6 requirement. [Order No. PSC-93-0108-FOF-TL]

7 Although the Commission has recognized the effects of repression in the
8 telecommunications industry, it has not done so with respect to the water industry.

9 Q. Would you please explain how the Company has made its repression adjustment?

10 A. Yes. The Company has estimated repression through the use of the Waterate
11 software program created by Dr. Whitcomb. The software uses estimates of the price
12 elasticity of demand from a water demand study conducted by Brown & Caldwell for the
13 Southwest Florida Water Management District (SWFWMD). These elasticity estimates
14 are used to predict the adjustment in water demand that will result from a change in the
15 Company's proposed price structure. In effect, the Company is using price elasticities
16 generated from a different area of the state to estimate changes in demand which may arise
17 in its own service territory.

18 **Proposed Standards for Evaluating Statistical Models in a Regulatory Filing**

19 Q. What are the appropriate standards for judging a statistical model for regulatory
20 use?

21 A. There are three primary standards which should be used to evaluate a statistical
22 model for regulatory use. First, a statistical model should strive to use Company-specific
23 data whenever possible. It is my opinion that this standard increases proportionately with
24 the issue in question. For instance, if the adjustment in question is a significant part of a
25

1 particular regulatory filing, then a regulated utility should take all necessary steps to
2 produce a model which reflects the specific conditions of its own service territory. In this
3 case, the revenues associated with repression amount to over \$2 million. Thus, it would
4 seem reasonable to expect the Company to produce a model with as much service territory
5 specific information as possible.

6
7 Second, the statistical models should be parsimonious. This entails that the model is
8 intuitive, straightforward, and based upon a *tried and true methodology*. Regulatory
9 proceedings are no place for experimentation with novel statistical approaches of
10 questionable reliability.

11
12 Third, statistical models used in a regulatory proceeding should meet relatively high
13 standards of predictability and accuracy. Models with very low statistical explanatory
14 power do not serve regulatory purposes well and place unnecessary risk upon ratepayers.

15 Q. How does the residential SWFWMD Price Elasticity Study compare with your first
16 standard for evaluating a statistical model for regulatory use?

17 A. I believe the model is not an accurate representation of SSU's service territory.
18 The Company has not attempted to reconcile the demographic and usage characteristics
19 between the SSU service territory with that of SWFWMD. [Response to OPC Production
20 of Documents Request No. 232.] This is troubling because a significant difference between
21 the two service areas rests with how water service is priced. For instance, SSU has
22 uniform per unit rates in most of its service territory. Here, uniform price means that the
23 same per unit charge is applied to all customers for every unit of consumption. This differs
24 from "blocked" rates in the sense that per unit rates increase (decrease) with increases
25

1 (decreases) in consumption.
2

3 Most of the utilities in the SWFWMD Price Elasticity study have either increasing or
4 decreasing block rates as evidenced in Figure 2-1 [Exhibit¹³⁵_JBW-3, p. 26.] Other things
5 equal, the customers faced with these different pricing structures will face different demand
6 curves (and different price elasticities of demand). In their study, Brown & Caldwell are
7 correct in drawing the following example:

8 ... assume two identical customers facing the same marginal water price but
9 different rate structures. The first customer faces a uniform rate where all
10 water is charged at P_2 and where the resulting water quantity demanded is
11 Q_2 as shown on Figure 2-3. The second customer, facing an increasing
12 two-block rate structure, pays the lower P_1 for water up to Q_1 and price P_2
13 for water above that amount. Both customers pay the same marginal price.
14 The second customer's water bill, however, is lower by $(P_2 - P_1) * Q_1$
15 because of the lower priced first block. *This creates a relative increase in*
16 *disposable income which can be used to buy more goods.* If water and
17 income are positively related, the second customer will buy more water
18 moving out to Q_3 . *Thus, given identical customers facing the same*
19 *marginal price, differences in rate structures can cause different*
20 *demands for water.* [Exhibit¹³⁵_JBW-3), p. 27, emphasis added.]

21 I have provided a copy of this figure as Schedule 1. The important sentence to note
22 in this example is the last: *given identical customers facing the same marginal price,*
23 *differences in rate structures can cause different demands for water.* This is the particular
24 reason why I do not believe the price elasticities generated in the SWFWMD residential
25

1 water demand study should be applied in this proceeding. SSU customers probably exhibit
2 different demand curve than the residential customers in the SWFWMD Price Elasticity
3 Study given the differences in the two area's price structures. Despite this acknowledged
4 difference, Dr. Whitcomb's repression estimates are based upon an assumption that the
5 demand curves for the two areas are the same.

6 Q. Are there any additional problems, in your opinion, with regards to the types of
7 prices modeled in the SWFWMD study and those which actually exist in the SSU service
8 territory?

9 A. Yes. There is an additional problem with applying the results from the SWFWMD
10 Price Elasticity Study to SSU's service territory. This problem is related to the residential
11 study's use of what is known as a "ramped" price. Brown & Caldwell define ramped prices
12 as "a combination of block prices." [Exhibit¹³⁵_JBW-3, p. 25.]

13 As a customer moves towards a block threshold, the price in the first block
14 becomes less important and the price in the second block becomes more
15 important. When a customer is at the threshold, prices from both blocks
16 are given equal weight. Finally, as a customer goes beyond the threshold,
17 the influence of the first block price progressively diminishes to zero. [Ibid.]

18 In effect, "ramped" prices average prices between two blocks over a particular range. The
19 closer a customer gets to a particular block, the more likely he or she is to use the next
20 block's rate in determining his or her consumption. Over some range -- in this study 2,000
21 gallons -- the customer reacts to an average of the two block's price rather than the
22 marginal price of either block.

23
24 There are a number of important points to note about the use of ramped prices. First, SSU
25

1 does not price on a ramped basis -- this is an empirical artifact constructed on Brown &
2 Caldwell's part to indicate that customers react to a combination of marginal and average
3 prices. It would appear that the notion of "ramped prices" is nothing more than an
4 empirical devise to force some kind of continuity in prices, rather than modeling prices in
5 discrete blocks. Two, there is no theoretic justification to support the notion that
6 customers react to both average and marginal prices in their demand for a particular
7 service. Most of the literature in this area focuses on either set of prices (marginal or
8 average) -- not some version of both.

9
10 While the notion of ramped versus marginal versus average price may seem like an exercise
11 in academic acrobatics -- there is an applicable criticism here. The SWFWMD Price
12 Elasticity study uses -- for better or worse -- ramped prices. Even if such a construction
13 were correct -- they would not be applicable to SSU's customers because they do not face
14 increasing (or decreasing) block rates. There is nothing there for them to "ramp." Thus,
15 price elasticities used from such a model are inapplicable for use in this proceeding.

16 Q. Would you please discuss your second standard for evaluating statistical models in
17 a regulatory proceeding?

18 A. Yes. A model used in a regulatory proceeding should be parsimonious. That is to
19 say, it should be intuitive and relatively straightforward. Regulatory proceedings are no
20 place to experiment with untried and questionable methods. In addition, the specification
21 of the model should not be especially sensitive to minor changes such as relaxing a
22 particular constraint. Unfortunately, the results from the SWFWMD residential water
23 demand study are sensitive to its underlying empirical constraints.

1 For instance, Dr. Whitcomb presented the study included in Exhibit ³⁵ (JBW-3) for academic
2 publication in *Water Resources Research*. The paper was entitled "New Directions in
3 Mapping Water Demand Curves." Upon the advice of peer reviewers, Dr. Whitcomb
4 relaxed the constraint which forces the price elasticity to zero at the highest system price
5 in the study (\$7.05 per thousand gallons). Dr. Whitcomb explains that the relaxation of this
6 constraint results in a more "flexible" demand specification. [Response to OPC Request for
7 Production of Documents No. 230.] The relaxation of this constraint, however, presents
8 some rather disturbing results.

9
10 First, consider the changes in basic water use. In the model filed in this proceeding, basic
11 water use is estimated to be 105 gallons per day. In the alternative specification submitted
12 for publication by Dr. Whitcomb, basic water use is estimated to be 451 gallons per day per
13 household -- or four times as large. In the model filed in this proceeding, usage per
14 occupant is estimated to be 23 gallons per day. In the alternative specification, usage per
15 occupant is estimated to be 71 gallons per day -- or three times as large. The specification
16 presented in this proceeding estimates usage per inch of Net Irrigation Requirement (NIR)
17 per thousand square feet of lot space to be 0.69 gallons per day, while the alternative
18 specification presents an estimate of 2.3 gallons per day. The large deviations in these basic
19 statistical results of the model raises serious questions about its stability and usefulness in
20 a regulatory proceeding.

21
22 An additional downfall is the large difference in the implied price elasticities of demand. For
23 instance, at a price of \$2.10 per thousand gallons, the (composite) price elasticity from the
24 study presented in this proceeding is -0.29, while the price elasticity using the alternative
25

1 specification was -0.63 -- over double the estimate filed in this proceeding. The relaxed
2 (alternative) specification produces elasticities which range from a low of -0.26 to a high
3 of -0.68. The specification filed in this proceeding (the one in which the Waterate elasticity
4 defaults are based) produces elasticities which range from a low of 0 and an high of -0.55.
5 [Response to OPC Request for Production of Documents Numbers 234 and 23.] This
6 raises serious questions about the accuracy of the SWFWMD residential demand model
7 presented in this filing. The potential for huge variation in price elasticities reinforces my
8 recommendation that the methods used here are too inaccurate for regulatory use.
9 Schedule 2 presents a graph comparing the price elasticity estimates from the two
10 specifications over a range of different prices.

11
12 The biggest problem with relaxing the zero price elasticity constraint (at \$7.05 per
13 thousand gallons) is the implied shape of the demand curve when prices are allowed to
14 increase above \$7.05 per thousand gallon level. The alternative demand specification
15 produces an "upwards" sloping demand curve at prices greater than \$8.34 per thousand
16 gallons. A graph of this upwards sloping demand curve has been presented in Schedule 3.
17 *An upwards sloping demand curve entails positive (not negative) price elasticities of*
18 *demand -- a contradiction of economic theory.* The positive price elasticities generated
19 from relaxing this constraint can be seen on the graph presented in Schedule 2 for prices
20 higher than \$8.34 per thousand gallons.

21
22 An upwards sloping demand curve violates the first law of demand which states that there
23 is an inverse relationship between price and quantity demanded. This law creates the
24 familiar downwards sloping demand curve that is taught in most introductory economics
25

1 courses. The relaxation of the zero price elasticity constraint at \$7.05 per thousand gallons
2 produces a result contrary to this law. The result entails that if the utilities in the
3 SWFWMD study increased their price above \$8.34 per thousand gallons, customers would
4 actually buy more (not less) water. This is a significant error and any empirical model
5 which produces such a result should be unquestionably dismissed.

6
7 The results from the alternative specification have particular importance to the model upon
8 which the repression estimates proposed by the Company are based. The model presented
9 in this filing prevents such a positive demand curve from arising by arbitrarily forcing the
10 price elasticity to zero at a price of \$7.05 per thousand gallons. While potentially close to
11 zero, there is no *a priori* reason to assume that the price elasticity is actually zero at that
12 price level. Relaxing this arbitrary constraint is not unreasonable -- yet it produces results
13 which are counter to economic theory. Thus, the entire empirical relationship -- and the
14 results generated from such a relationship -- should be called into question.

15 Q. Have you reviewed all of the peer review comments generated from the work Dr.
16 Whitcomb has submitted in this proceeding?

17 A. No. The Citizens received only the second set of peer review comments generated
18 in the academic review of the work Dr. Whitcomb has submitted in this proceeding. When
19 asked about the first (and other) sets of peer review comments, Dr. Whitcomb indicated
20 that he had thrown these comments out about eight (8) months prior to his deposition. The
21 Citizens subsequently asked Dr. Whitcomb to sign a release form authorizing the academic
22 journal, *Water Resources Research*, to release any and all peer review comments generated
23 during the review of his work. The Citizens submitted this request form to SSU on
24 November 15, 1995. SSU indicated, over one month later (December 28, 1995), that it

25

1 had forwarded the release to Dr. Whitcomb for his signature. Dr. Whitcomb signed the
2 release form on January 10, 1996. The Citizens received the release form approximately
3 one week later. At this time, we have submitted the release to the journal asking for all
4 peer review comments generated in the review of the demand model submitted in this filing.
5 We have not received these comments to date. Given this delay, the Citizens may need to
6 file supplemental testimony once we have had the opportunity to review the new evidence
7 presented in these peer review comments.

8 Q. Please discuss your third standard for evaluating a statistical model for use in a
9 regulatory proceeding?

10 A. A statistical model should have a significant degree of explanatory power if it is to
11 be used in a regulatory proceeding. Typically, we look at a summary statistic known as the
12 R^2 to measure a statistical model's fit. While I would not expect a cross sectional model
13 to exhibit very high R^2 values, the residential water demand model presented in this
14 proceeding has a rather low R^2 of only 0.59. This entails that some 41 percent of the
15 variation in water consumption is not explained by the model.

16
17 A low R^2 alone is not as bothersome as the fact that two of the parameter estimates used
18 in calculating the price elasticity for low and medium property values are significant only
19 at the 90 percent level in a one-tailed test. A one-tailed test, in this instance, means that
20 the result is statistically significant from zero in one direction -- negative. This is a very
21 low statistical significance level particularly given the sample size. At minimum, I would
22 expect both of these terms to be significant at least at the 95 percent level -- which they are
23 not. The weakness of this result can be highlighted by the fact that, while the one-tailed
24 test is appropriate, if a two-tailed test were used on the result, the two parameter estimates
25

1 would be significant at only the 80 percent level. It is the combination of a low R^2 and
2 marginally significant parameter estimates that leads me (in addition to the comments
3 presented earlier) to recommend that the Commission not accept the price elasticity
4 estimates proposed by SSU in this proceeding.

5 Q. What about the commercial models?

6 A. These models suffer from a lack of statistically powerful results. In particular, all
7 of the R^2 values are all critically low -- entailing that the overall explanatory power of the
8 models are also very low. For instance, the demand analysis for the car wash usage is only
9 0.17 -- entailing that some 81 percent in the variation of their consumption is unexplained
10 by the model. The model for hospital water use recorded an R^2 of only .04 -- or that some
11 96 percent in the variation in usage is unexplained by the model. The model for
12 laundromats exhibits an R^2 of only 0.06 -- meaning that some 94 percent of the variation
13 in their use is unexplained by the model. The model for nursing homes presents an R^2 of
14 0.54 -- or that some 46 percent of the variation in this usage is unexplained by the model.
15 The model for office buildings exhibits an R^2 of 0.29 -- entailing that some 71 percent of
16 the variation in consumption is unexplained by the model. The model for restaurants shows
17 an R^2 of 0.19, or that some 81 percent of the variation in their usage is unexplained by the
18 model. The model for schools has an R^2 of 0.32 -- or that some 68 percent of the variation
19 is unexplained by the model. A summary of these results have been presented in Schedule
20 4 of my exhibit.

21 Q. How is repression altered by a change from statewide average rates to stand-alone
22 or modified stand-alone rates?

23 A. That is unclear. The Company's existing repression estimates do not take into
24 account the repression -- or net repression -- associated with a change from the existing
25

1 statewide average rates to stand alone -- or modified stand alone rates. The shift to
2 modified stand alone rates may entail that some customers will be getting rate decreases,
3 while others may be getting rate increases. If the repression associated with those systems
4 getting rate increases is greater in magnitude than the stimulation associated with those
5 systems getting price decreases -- net repression (Company-wide) will occur.

6
7 In his deposition, Dr. Whitcomb indicated that SSU is preparing to present an alternative
8 repression estimate for the Commission. This repression estimate will take into account
9 the impacts of shifting from state-wide average rates to modified stand-alone rates. I have
10 not had the opportunity to review these adjustments, since they have not been filed to date.
11 Since these adjustments will presumably use the Waterate software and the SWFWMD
12 defaults, I would expect that many of the criticisms I have presented in this testimony to
13 be applicable to the Company's revised repression analysis.

14
15 However, any final recommendations I may make on the overall repression issue are
16 conditioned by what the Company may present at some later date. I am particularly
17 concerned about the version of the Waterate software the Company may employ to
18 conduct its revised repression analysis. If the Company chooses to use the updated version
19 of the Waterate software, a number of additional questions may arise since many of the
20 software's defaults have the potential to change.

21 Q. Do you have any other comments regarding the Company's repression adjustments
22 in this filing?

23 A. Yes. Three of the systems in this filing are actually getting rate decreases under the
24 Company's proposals. These systems include: Lehigh, Enterprise Utility Corp., and Deep
25

1 Creek. Typically, we associate price decreases with an increase in quantity demanded.
2 Therefore, stimulation, rather than repression, would be the appropriate adjustment. Under
3 a stimulation adjustment, a positive -- rather than a negative -- factor would be applied to
4 test year billing units. However, inspection of Schedule E1-2, lines 314 (Deep Creek), 327
5 (Enterprise Utility Corp.), and 340 (Lehigh) all show projected billing units decreasing by
6 a factor of -11.7 percent. The Company has failed to explain why it would be appropriate
7 to reduce billing units for systems receiving price decreases. In the absence of some
8 rational explanation, these systems should be stimulated not repressed. As such, Schedule
9 E1-2 and the entire repression calculation -- is in error.

10 **Recommendations**

11 Q. What is your primary recommendation?

12 A. I recommend that the Commission not accept the repression adjustment proposed
13 by SSU because it is based upon a statistical model which does not meet adequate
14 standards for regulatory use. The study of water demand, while close to thirty years old,
15 still presents results which vary from one extreme to another. The volatility of these results
16 are highlighted by the relaxation of the zero price elasticity constraint which produces
17 completely different empirical results. Such variation certainly places the Commission in
18 a difficult position in determining the appropriate level of repression to include in this
19 proceeding.

20
21 I believe that Dr. Whitcomb presents as accurate statement of the dilemma for the
22 Commission when he notes that:

23 A lack of consensus on price elasticity has left policy makers with a range
24 of plausible price elasticities that is so wide as to offer little direction. For
25

1 a utility changing its rate structure, the difference between assuming
2 elasticity [of] -0.2 and -0.6 can have dramatic impacts on both rate
3 revenues and capital improvement decisions. Price elasticity uncertainty
4 has tended to discourage the use of price as a management tool. [Response
5 to OPC Request for Production of Documents 27.]

6 The models presented in this filing (both residential and commercial) do nothing to allay
7 the concerns noted by Dr. Whitcomb. Thus, the Commission should not accept the
8 repression estimate proposed by the Company in this filing. A revised version of Schedule
9 E1-4, which excludes the repression adjustment and presents a revised rate calculation
10 using the Company's requested rate increase, has been included in Schedule 5 of my
11 exhibit.

12 Q. Do you have any alternative recommendations?

13 A. Yes. If the Commission agrees that the results from the SWFWMD Price Elasticity
14 Study are inappropriate for use in a regulatory proceeding, but still feels the need to make
15 some type of repression adjustment, I would offer the following alternative
16 recommendation. First, if the Commission chooses to accept the Company's weather
17 normalization clause (WNC) there will be an ongoing opportunity for the Company to
18 recover lost revenues associated with repression. Thus, I would recommend that the
19 Commission split the short run elasticity estimate used by the Company on a 50-50 basis
20 with ratepayers. These percentages merely share the risk associated with repression equally
21 between Company and ratepayers. Long-run impacts of repression will be picked up in the
22 WNC since, by its nature, it will collect the difference between actual and projected
23 revenues. Some part of that difference may be associated with repression.

24

25

1 My alternative recommendation is based upon a short-run price elasticity which differs
2 somewhat from the one used by the Company in this filing. I believe that the appropriate
3 short run elasticity to be used is that recommended by Dr. Whitcomb in his Waterate
4 software, and not the one facilitated by the Company in constructing its E schedules. Dr.
5 Whitcomb, in the Waterate software price elasticity default notes:

6 Based on review of previous studies, we assume a short-run half life [for
7 the price elasticity of demand] of one year. In other words, 50, 25, 12.5,
8 and 6.25 percent of the long-run price impact occurs in the first, second,
9 third, and fourth years after the price change. [Response to OPC
10 Production of Documents Request No. 23.]

11 The Company has opted to use a much higher short-run impact of 75 percent, against Dr.
12 Whitcomb's default recommendation.

13
14 In addition to adjusting the first-year (short-run) price elasticity level, I have also adjusted
15 the property value distributions of 33/34/33 (low, medium, and high income) to coincide
16 with the property value percentages found in the 1990 Census for the ranges identified in
17 the Waterate defaults (\$0-55,000; \$55,000-81,300; and \$81,300 and above). These
18 percentages are 40, 36, and 24 percent for low, medium, and high income property values,
19 respectively. The final results from my first alternative recommendation have been included
20 in Schedule 6.

21
22 My second alternative recommendation is conditioned on the Commission's decision to
23 reject the Company's proposed WNC. If the Commission rejects the Company's proposed
24 WNC, then the opportunity to recover lost revenues from repression over the long run will
25

1 not exist. In this case, I would recommend that the Commission split the difference in the
2 long-run price elasticity between ratepayers and the Company on a 50/50 basis. I have
3 included the results from my second alternative recommendation in Schedule 6.
4

5 As an additional point of clarification I would like to add that under both my alternative
6 recommendations, the price elastic effect associated with changes in short-run costs (e.g.,
7 price elastic changes in the short-run revenue requirement) would also be adjusted
8 consistent with the Commission's decision concerning the Company's proposed WNC.

9 Q. Do you have any additional comments regarding your repression recommendations?

10 A. Yes. OPC, on behalf of the Citizens, has recommended a revenue decrease in this
11 proceeding. If the Commission accepts this recommendation, then adjustments regarding
12 stimulation should be considered. If the Commission accepts OPC's recommendation, my
13 primary recommendation would remain the same: no stimulation adjustment should be
14 made given the existing shortcomings in the SWFWMD Price Elasticity Study. If the
15 Commission believes that it is appropriate to make a stimulation adjustment, I would
16 recommend using the formula outlined in my alternative repression recommendation for
17 determining the appropriate level of stimulation. That is, if the WNC is approved, the
18 Commission should split the difference in the short-run price elasticity between ratepayers
19 and the Company on a 50/50 basis. If the WNC is not approved, then the Commission
20 should split the difference between the long-run price elasticity between the Company and
21 ratepayers on a 50/50 basis.

22 Q. Does this conclude your testimony?

23 A. Yes.
24
25

1 Q (By Mr. McLean) Dr. Dismukes, have you
2 prepared a summary of your testimony this morning?

3 A Yes, I have.

4 Q Would you please render it to the
5 Commission?

6 A Yes. First of all, I would like to thank
7 the Commissioners and the other parties for taking me
8 out of order. The purpose of my testimony is to
9 address the repression adjustment that's been proposed
10 by the Company. My primary recommendation is that the
11 Commission should not accept the repression adjustment
12 proposed by the Company. I am basing my
13 recommendation on three factors which the Commission
14 has recognized in previous dockets.

15 The first is that the repression adjustment
16 should be based upon models which use company specific
17 information whenever possible. And as you know,
18 Southern States repression estimates are not based
19 upon company specific information, but are rather
20 based on a study done for the Southwest Florida Water
21 Management District.

22 The second is that models supporting these
23 repression adjustments should be intuitive, straight
24 forward and consistent with existing methods. I
25 believe that the residential water demand models used

1 by the Company to make their repression estimates do
2 not meet this criteria.

3 The third is that models supporting these
4 repression adjustments should exhibit some degree of
5 reliability and significance to minimize the
6 uncertainty associated with adopting a particular set
7 of estimates. Both the residential and the commercial
8 models used by the Company to make these estimates
9 fell in this area as well. I believe this is
10 particularly true with the commercial models.

11 For these three reasons, I believe that the
12 Commission should err on the side of caution and not
13 make a repression adjustment based upon the Company's
14 estimates at this time.

15 Q Thank you, Dr. Dismukes.

16 MR. McLEAN: Tender the witness for cross.

17 CHAIRMAN CLARK: Mr. Twomey, do you have any
18 cross?

19 MR. TWOMEY: I do not.

20 CHAIRMAN CLARK: Mr. Jacobs.

21 MR. JACOBS: None.

22 CHAIRMAN CLARK: Mr. Hoffman.

23 MR. HOFFMAN: Thank you, Madam Chairman.

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CROSS EXAMINATION

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BY MR. HOFFMAN:

Q Good morning, Dr. Dismukes, I'm Ken Hoffman representing Southern States Utilities.

A Good morning.

Q And I just have a few questions for you this morning. First of all, it's true that you have never conducted an empirical water price elasticity study, correct?

A That is correct.

Q Would you agree that approximately 120 empirical water price elasticity studies have been published in academic journals?

A I'm not sure about the exact number.

Q You agree that price elasticity is a valid economic concept?

A Yes, I do.

Q I'm sorry, sir?

A Yes, I do.

Q You also agree that the concept of elasticity applies to water rates?

A Yes, I do.

Q The only question then is the level of elasticity; is that correct?

A That is correct.

1 Q For the uniform rate structure plants in
2 this rate hearing, Southern States has proposed that
3 the gallonage charge for water service be increased
4 from \$1.23 to \$2.16 per thousand gallons. That's a
5 76% increase. Would you stipulate to that arithmetic?

6 A Yes, I would.

7 Q As a result of such an increase in the
8 gallonage charge, would you expect water use to
9 decrease, increase or be unchanged, holding all other
10 factors constant?

11 A Holding other things constant, I would
12 assume it would decrease.

13 Q To decrease?

14 A Yes.

15 Q Your primary recommendation in this rate
16 case is that the price elasticity adjustment be zero;
17 is that correct?

18 A Yes. In practice the adjustment would be
19 zero. That's not to presume that the price elasticity
20 is zero, but that the adjustment would be zero.

21 Q However, you do admit that there will be a
22 price elastic response to SSU's proposed rate increase
23 if granted?

24 A There could be a price elasticity response,
25 yes.

1 Q Your first alternative recommendation is
2 that if the weather normalization clause is adopted,
3 Southern States should get half of the short run price
4 elasticity adjustment; is that correct?

5 A That's correct.

6 Q Your offer of 50% of Dr. Whitcomb's proposed
7 elasticity adjustment is simply an attempt to split
8 the baby, so to speak, isn't it?

9 A I would say it was an equal sharing of the
10 risk associated with the estimates.

11 Q Well, is there any empirical evidence that
12 you would rely on to support that offer of 50% of
13 SSU's proposed elasticity adjustment?

14 A No, it's just a simple sharing, even sharing
15 mechanism.

16 Q Your second alternative recommendation is
17 that if the weather normalization clause is not
18 adopted, SSU should get half of the long run price
19 elasticity adjustment. Do you base that
20 recommendation on any empirical evidence?

21 A The 50%?

22 Q Yes.

23 A No, I do not.

24 Q In your summary you stated that models
25 should use company specific information. Does

1 Southern States have any service areas where a
2 gallonage charge of \$2.16 per thousand gallons is
3 charged?

4 A I don't know exactly if there is a 2.16, but
5 I would presume that -- I'm sorry, what was the
6 question again?

7 Q The question was, in your summary you stated
8 that models should use company specific information.
9 And my question was: Does Southern States have any
10 service areas that currently charge a gallonage charge
11 of \$2.16?

12 A Is this 2.16 just for water?

13 Q Yes.

14 A There are some close to 2.16. 2.21 under
15 the interim rates right now.

16 Q What about prior to the interim rates?

17 A The rates from the last rate case, I believe
18 were \$1.23.

19 Q And that would apply across the board for
20 the service areas in Docket No. 920199?

21 A Yes.

22 Q Dr. Dismukes, have you reviewed the
23 Prehearing Order in this rate case?

24 A Yes, I have.

25 Q Is Public Counsel intending to rely on your

1 testimony in support of its position on any issue in
2 this proceeding?

3 A I believe on the issue associated with the
4 correct billing units.

5 Q I'm sorry, I didn't hear you, Dr. Dismukes.

6 A I'm note sure of the exact issue. I believe
7 it's 75.

8 Q Do you have a copy of that Prehearing Order
9 with you?

10 A No, I do not.

11 MR. McLEAN: Madam Chairman, we are not
12 offering Dr. Dismukes as an expert on what the
13 Prehearing Order says. I'm not sure what the point
14 is. If the Company is claiming that they are
15 surprised the Dr. Dismukes criticizes the elasticity
16 and demand modeling of Dr. Whitcomb, perhaps we have a
17 problem. But Dr. Dismukes didn't compose the
18 Prehearing Order.

19 MR. HOFFMAN: Madam Chairman, I did not see
20 Dr. Dismukes listed as a witness next to the Public
21 Counsel's position on any issue on this Prehearing
22 Order. I'm simply trying to clarify if it was his
23 understanding that his testimony is supposed to
24 support the Public Counsel's position on any issue.

25 MR. McLEAN: His position, and it ought not

1 to be any surprise to the Company, is that the
2 elasticity estimates of Dr. Whitcomb are in error.
3 Now, whether that's reflected in the Prehearing Order,
4 I don't know. But if there has been prejudice, I
5 think you should ask to hear it --

6 CHAIRMAN CLARK: I'm sorry, I didn't hear
7 that last part.

8 MR. McLEAN: If his name is not listed
9 beside an issue in the Prehearing Order, and I take
10 Mr. Hoffman's word that it is not, I put it to you,
11 Madam Chairman, that you should inquire as to whether
12 there's been any prejudice to the Company because of
13 that clerical omission. It comes as no surprise.

14 CHAIRMAN CLARK: Mr. McLean, I think he's
15 just trying to clarify what he is testifying on and
16 what issue he's on, so I'll allow the question. If he
17 states it in error, then you can clarify it on
18 redirect.

19 MR. McLEAN: Okay, fine.

20 WITNESS DISMUKES: I don't know the exact
21 issue number. If I could look at the Prehearing
22 Order --

23 CHAIRMAN CLARK: Dr. Dismukes, you don't
24 have a copy of the --

25 WITNESS DISMUKES: No, ma am, I do not.

1 CHAIRMAN CLARK: Can we get him a copy of
2 the Prehearing Order.

3 MR. McLEAN: Madam Chairman, again, if
4 Mr. Hoffman says it's not there, we're happy to
5 stipulate that it's not there.

6 CHAIRMAN CLARK: I had understood the
7 question was he wanted him to look at the issue and
8 see if that's the issue he's providing testimony on.

9 MR. HOFFMAN: Yes, ma'am. We are just
10 inquiring to know what issue his testimony purports to
11 support Public Counsel's position on.

12 CHAIRMAN CLARK: Okay.

13 WITNESS DISMUKES: Yes, it's Issue 75.

14 MR. HOFFMAN: Thank you, Dr. Dismukes. I
15 have no further questions.

16 MS. CAPELESS: Staff has no questions.

17 CHAIRMAN CLARK: Redirect.

18 MR. McLEAN: No redirect. Thank you.

19 CHAIRMAN CLARK: Commissioners, I forgot to
20 ask if you had any questions, I'm sorry.

21 Dr. Dismukes, it's nice to see you again. I
22 did not know you had taken a position at LSU. I just
23 assumed it was because you were over at Public Counsel
24 and we had moved and we were no longer seeing you.

25 WITNESS DISMUKES: No.

1 CHAIRMAN CLARK: Congratulations, and I hope
2 you are enjoying yourself in Baton Rouge.

3 WITNESS DISMUKES: Yes, I am. Thank you
4 very much.

5 CHAIRMAN CLARK: Exhibits.

6 MR. McLEAN: I move Exhibit No. --

7 CHAIRMAN CLARK: 164 is admitted without
8 objection. You are excused Dr. Dismukes.

9 (Exhibit No. 164 received in evidence.)

10 (Witness Dismukes excused.)

11 - - - - -

12 CHAIRMAN CLARK: I guess we hadn't
13 envisioned we would get this far before the
14 teleconferencing. But I had understood that the Staff
15 had -- let me ask the Staff. Is it appropriate at
16 this point to call Bob Casey? Can we do that?

17 MS. O'SULLIVAN: We are going to try to take
18 him after lunch if possible to give him notice.

19 CHAIRMAN CLARK: After lunch.

20 MS. O'SULLIVAN: I was still checking with
21 the parties to see. We may be able to stipulate him
22 in the record entirely as well. We are working on
23 that.

24 CHAIRMAN CLARK: Commissioners, Bob Casey
25 has some family matters he needs to attend to and that

1 was the reason we were going to put him on after
2 lunch.

3 Having concluded with Dr. Dismukes, Mr. Beck
4 you had indicated to me an order.

5 MR. BECK: Yes.

6 CHAIRMAN CLARK: And Commissioner Deason is
7 telling me it's Mr. Katz.

8 MR. BECK: Yes, he's here and prepared to
9 testify.

10 CHAIRMAN CLARK: Okay.

11 MR. BECK: Mr. Katz, you have not been sworn
12 previously?

13 WITNESS KATZ: No, I have not.

14 CHAIRMAN CLARK: Let me ask at this time if
15 there's anyone else in the audience who is going to be
16 a witness in this proceeding, who has not been sworn
17 in, if they would please stand at the same time I
18 swear this witness in, and we will swear you in.

19 (Witnesses collectively sworn.)

20 Thank you. You may be seated.

21

22

23

24

25

PAUL A. KATZ

1
2 was called as a witness on behalf of the Citizens of
3 the State of Florida and, having been duly sworn,
4 testified as follows:

DIRECT EXAMINATION

5
6 BY MR. BECK:

7 Q Would you please state your name?

8 A Paul Alvin Katz.

9 Q And are you self employed?

10 A Yes, I am.

11 Q Did you prepare prefiled testimony to be
12 filed in this case?

13 A Yes, I did.

14 Q And if I were to ask you the same questions
15 here today, would your answers be the same?

16 A Yes, they would.

17 Q And do you also have two exhibits attached
18 to your testimony, PAK-1 and PAK-2?

19 A That is correct.

20 MR. BECK: And, Chairman, I'd ask that those
21 two exhibits be marked as one composite exhibit for
22 identification.

23 CHAIRMAN CLARK: They will be marked as
24 Exhibit 165.

25 Q (By Mr. Beck) Mr. Katz do you have any

1 changes, corrections or additions to your testimony?

2 A No, I do not.

3 MR. BECK: I would move his testimony into
4 the record as though read.

5 CHAIRMAN CLARK: The prefiled direct
6 testimony of Paul A. Katz will be inserted in the
7 record as though read.

8 (Exhibit No. 165 marked for identification.)

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DIRECT TESTIMONY OF PAUL A. KATZ
ON BEHALF OF THE CITIZENS OF FLORIDA
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
SOUTHERN STATES UTILITIES
DOCKET NO. 950495-WS

1 Q: **What is your name and business address?**

2 A: Paul A. Katz, 8721 Oxwell Lane, Laurel, MD 20708.

3 Q: **What is your educational background and work experience?**

4 A: I have a Bachelors Degree and a Masters Degree from the University of
5 Wisconsin in Psychology and Economics. Additionally, I have successfully
6 completed more than 30 professional training courses, varying in length from
7 three days to two months, principally on the subjects of personnel and
8 management, with a concentration on employee compensation. I served as an
9 instructor for the American Compensation Association (ACA), a 20,000
10 member professional organization; where I was also an elected regional
11 President and for many years an elected National Director.

12

13 I have professionally practiced in the fields of personnel and compensation
14 (employee pay and benefits) for over 35 years. For the U.S. government (U.S.
15 Office of Personnel Management - OPM) I was the highest ranking career
16 civil servant in my field of job evaluation and pay. At OPM in Washington,
17 my office was responsible for determining the grades, and through that the
18 pay, of over 2 million civilian employees. During my government career I was
19 also employed as a Labor Economist for the Bureau of Labor Statistics (BLS)

1 where I designed and/or managed national pay surveys covering virtually all
2 the occupations in the U.S. economy. The combination of BLS pay surveys,
3 ACA officership and teaching, and OPM pay setting took me into (and
4 continues to take me into) hundreds of private sector companies to learn
5 about their pay practices and policies.

6
7 Since my retirement from the Federal government's Senior Executive Service
8 ten years ago, I have worked as a self-employed Personnel Consultant
9 specializing in pay, job evaluation, and employment. Approximately half of
10 my work has been litigation support and expert witness services in employment
11 and pay discrimination suits, mostly for employees. The other half, mostly for
12 employers, has been as a compensation consultant involving pay, grades, and
13 job descriptions. I have been accepted as an expert witness by judges in
14 Federal District Courts and by several administrative bodies, such as the U.S.
15 Equal Employment Opportunity Commission.

16 **Q: Have you won any awards, and if so for what?**

17 **A:** I have several from both the government and professional associations. The
18 awards were for performance, research, writing and teaching.

19 **Q: What is the purpose of your testimony?**

20 **A:** The purpose of my testimony is to offer an evaluation of the testimony of
21 Southern States Witness Dale Lock regarding the administration of salary
22 programs within the company and the resulting overall salary expense
23 produced by these programs.

24 **Q: Specifically, did you read that portion of Ms. Lock's testimony, on pages 11**
25 **through 20, concerning (page 11) "SSU's...analysis (of) salary structure,**

1 **average salary and turnover rates...?"**

2 A: Yes.

3 Q: **In summary, what conclusion did you reach after this review?**

4 A: It is my conclusion and expert opinion that none or virtually none of Ms.
5 Lock's (hereinafter referred to as SSU's or the Company's) conclusions should
6 be given any weight whatsoever because: (a) the foundation salary surveys
7 used are non-comparable to SSU or its individual establishments, and (b) the
8 survey data itself has been misused.

9 Q. **Mr. Katz, have you reached similar conclusions in the past?**

10 A. Yes, many times. In publicly establishing pay and benefits for two million
11 civilian Federal employees, data (or what is claimed to be data) is often
12 "thrown around" in the bureaucracy, in the halls of Congress, and in the
13 media. To combat such "mis" information it was my job and that of my
14 colleague's offices to critique such data and its use.

15 Q. **Could you give us examples, point-by-point, of how SSU committed these**
16 **errors.**

17 A. Yes. I will do that using the same major headings SSU used to demonstrate
18 why they believe it appropriate to substantially raise pay. That is: Salary
19 Structure, Salaries, and Turnover.

20 Q. **Could you first discuss SSU's position on "Salary Structure"?**

21 A: SSU reports that while the companies SSU chooses to compare itself with
22 raised their salary structures by 7.8% over the three year period of 1992-1994,
23 SSU raised its salary structure by Zero Percent, and thus "...fell further behind
24 the competitive labor market." The former (zero percent increase in salary
25 structure) does not support SSU's latter conclusion of "non-competitive".

1 A salary structure has little to do with actual pay. In fact, there are many
2 times when a company pays not only above, but also below their salary
3 structure. Simply put, a key part of a salary structure (i.e., the rate range)
4 indicates the minimum and maximum amount of pay a company will ordinarily
5 pay an employee in a particular job or pay grade. Moreover, that minimum
6 and maximum pay rate typically varies by as little as 30%, most often by 50%,
7 and sometimes by as much as 100%.

8
9 For example, if a salary structure has a position or grade rate range of 50% -
10 - from \$20,000.00 to \$30,000.00 per year -- an employee (particularly a new
11 hire) could fairly be paid \$20,000.00 per year. If that employee were given a
12 pay raise (similar to SSU's example) of approximately 2.5% a year for ten
13 consecutive years, for a total pay raise of 30%), that employee would still be
14 within their rate range, even if the rate range had changed by Zero Percent
15 (again, the same as SSU's did in 1992-94). In other words, a company like
16 SSU can substantially increase pay (even double it) without ever increasing
17 their salary structure. So, salary structure increases and salary increases can
18 be two completely different things.

19
20 The fact that SSU did not increase its salary structure has no bearing
21 whatsoever on (a) its actual rates, or (b) its ability to fairly compete in the
22 labor market. SSU's claims about "salary structures" should be rejected as
23 irrelevant to any claims made about the need for pay raises or its ability to
24 fairly compete in the market.

25 Q. **Could you now discuss SSU's position under "Salaries"?**

1 A: As with "Salary Structures" discussed above, SSU not only continues its errors,
2 but compounds them by what a layman might call "throwing figures around".

3
4 First SSU "calculates" (pages 12 and 13) that "...average overall salary
5 increase budgets in Florida" of approximately 4% a year for each of two years
6 (1993-94) yields an actual two year salary increase of 8.7%. No such thing!
7 A budgeted increase is a projection of what the company may do in future
8 years, and an "...increase in earnings..." is what employees actually receive from
9 the company in the past. There is little relationship between the two (i.e.,
10 budget vs. actual). For example, a company may budget or project a small
11 increase, but employees could actually receive a large increase (or visa versa).
12 [We are all familiar with small construction budgets that turn into large actual
13 bills and cost overruns.] SSU's testimony provides no support for its apparent
14 erroneous conclusion that "budget" equals "actual". Thus, this foundation
15 "data" and all the analyses and conclusions that rely on it should also be
16 rejected.

17
18 Interestingly, the above example is almost exactly what SSU committed while
19 claiming "poverty", but locating the data which disproves its conclusions in two
20 different places. In the section titled "Salary Budgets" SSU claims a Zero
21 Percent increase. However, in a separate section titled "Salaries" SSU clearly
22 reports a "salary increase budget" (for merit, equity, and step adjustments) of
23 7.2%. Well, which is it; Zero Percent or 7.2%. Which is the "real" truth?
24 Perhaps there is no "real" truth, because in the almost next sentence (page 13,
25 line 6) SSU claims average actual raises of 1.44% per year. What happened

1 to the previous Zero Percent or 7.2%? That's what "throwing figures about"
2 means.

3
4 It gets worse. These "facts" (the term "facts" is now necessarily in quotes)
5 SSU now asserts are due to "filling more lower paid...than higher paid
6 positions." But not only is there no evidence that actually happened (or that
7 there were or could have been other reasons) but there is not a shred of
8 evidence and analysis that one caused the other.

9
10 On this weak foundation SSU winds up its "Salaries" analysis and proof by
11 reporting that other water companies pay higher than does SSU. SSU paying
12 \$27,168, and others paying an average of either \$34,585.97, or \$39,190.15.
13 Thus SSU, according to SSU's data, is "behind" by as much as 44% (\$39,190
14 minus \$27,168, divided by \$27,168, times 100). Does 44% behind seem
15 possible?

16
17 Because of competitive pressures and the wide availability of detailed salary
18 surveys, average salaries within and among industries do not typically vary by
19 a significant amount. For example the U.S. Bureau of Labor Statistics
20 (Occupational Compensation Survey, National Summary, 1993, Bulletin 2458)
21 reports that relative average pay typically varies by industry and geographic
22 area from a low of about "94" to a high of "107" ("100" is the average). Thus,
23 SSU's pay relative (in relation to \$39,190) would be "66"; a figure generally
24 unheard of in this country. Again, as above, there may well be something
25 wrong with the data SSU has presented as being ostensibly comparable.

1 Q. Could you now discuss your third point, "Turnover"?

2 A: SSU, now well into its stride of "throwing figures around" begins its "Turnover"
3 analysis and proof of its need for higher pay, by asserting that it is their
4 claimed non-competitive pay that causes both high turnover and difficulty in
5 recruiting. No, and it is emphasized, no analysis or proof whatsoever is
6 presented for demonstrating that the claimed high turnover and recruitment
7 difficulty is the only or principal result of the claimed low pay. Turnover can
8 and does result from a myriad of other factors. For example, poor
9 management, poor physical or emotional working conditions, or hiring the
10 wrong people. In fact, it is well known that pay is rarely an important factor
11 in voluntary departures, and that it ranks about fifth among the ten typical
12 reasons employees give for voluntarily departing (Maslow, Abraham,
13 Motivation and personality, New York: Harper and Row Publishers, 1954.

14

15 Not satisfied with simply (and probably falsely) asserting that turnover is the
16 only and direct result of their claimed low pay, SSU goes on to compare its
17 turnover with that of other employers. SSU finds its turnover rate of about
18 13.5% is "abysmal" as well as "significantly" higher than the national average
19 of about 10.8%. However, using SSU's own data, if only eight (8) fewer
20 employees left SSU, they too would be at the average. SSU's data, therefore,
21 does not support the terms "abysmal" and "significantly higher", nor does any
22 of the above support SSU's need for higher pay.

23 Q. You have now critiqued SSU's basic and specific support of its need for pay
24 increases and found it wanting. But do you have analysis of your own that
25 you believe relevant concerning SSU pay increases?

1 A. Yes, I do; and they fall in two categories. One is the additional shortcomings
2 of SSU's data, analyses, and conclusions. The other is the relevant data that
3 one might take into account when setting overall pay levels.

4 Q. **What additional shortcomings have you identified in the SSU data, analyses,
5 and conclusions?**

6 A. SSU, in its testimony, typically utilizes industry and/or national data and
7 compares it to the whole SSU corporation. This is clearly not a typical or
8 professional personnel practice.

9

10 Typically, employers look to compare their individual establishments to the
11 local labor market. The key reason is that employers typically want to pay
12 salaries that are competitive principally with the local market from which they
13 obtain employees to work in their local establishments. Variations exist,
14 particularly in massive companies that have scores of establishments located
15 throughout the country. But this is not the case here. In a typical example;
16 the Acme Corporation takes a pay survey of Any Town, USA to help
17 determine pay at it's Any Town, Acme Widget Subsidiary. What the Acme
18 Corporation does not do is take a national (or state or regional) survey, and
19 then pay the same salaries at its many subsidiaries, located throughout the
20 region or country, without regard to, for example: (a) the local or city
21 unemployment rate, (b) the local prevailing wage rates, (c) the skill and/or
22 educational level of the local labor market, (d) the immediate availability of
23 qualified workers.

24

25 What SSU has done (and apparently without rationale) is to not follow the

1 above described "local" accepted practice. In fact, the American
2 Compensation Association, which awards the "CCP" designation (Certified
3 Compensation Professional), requires as a condition of certification, that the
4 above "local" principles be learned. It is noted that Ms. Lock, a "CCP", has
5 apparently not practiced that tenet of certification. What SSU could do -- but
6 has apparently not done -- is to take a local pay survey of the local labor
7 market surrounding each of its water plants, and from those surveys establish
8 separate pay plans for each local water plant (with perhaps some corporate
9 "connection" among the several plant's pay plans. To do otherwise, without
10 acceptable justification, fails to establish an efficient or economic pay practice.

11
12
13 That SSU also used a Florida League of Cities Wage Survey is still not
14 indicative of the above "local" focus. State-wide (or even local city
15 government) pay data is not the same as, for example, local pay data,
16 especially when an SSU water plant is located in a non-urban area and the
17 city government pay data comes almost exclusively from downtown. It is well
18 known that suburban pay is typically lower than downtown pay.

19
20 I would also note that one specific negative outcome for rate payers of SSU's
21 behavior in utilizing other than local data, is to pay rates that are higher than
22 necessary. That is due to Florida's local labor market rates being generally
23 lower (or even substantially lower) than national pay rates. SSU's own data
24 shows that.

25 Q. **What other relevant data should be considered in the development of**

1 **appropriate compensation plans?**

2 A. Compensation professionals typically consider pay being related to the
3 difficulty of the work. Economic or business analysts, however, also
4 responsibly consider the relationship of a company's payroll to that company's
5 overall cost of doing business. Using just two of many such measures, SSU
6 ranks almost last in the apparent efficiency with which it spends its payroll
7 dollars.

8
9 1- In comparison with 101 other water companies, nationally, SSU ranks
10 98 in the amount of payroll dollars it spends per revenue dollar. That
11 is, it spends relatively more money on pay that do virtually all of SSU's
12 fellow companies. (EXHIBIT PAK-1)

165

13
14 2- In comparison with 101 other water companies, nationally, SSU ranks
15 88 in the amount of payroll dollars it spends per customer. That is,
16 each of SSU's rate-payers carries a relatively larger payroll burden than
17 do virtually all other rate-payers throughout the country. (EXHIBIT
18 PAK-2)

165

19
20 Thus, by any of a variety of measures -- whether by pay or economic analysis -
21 - something appears wrong in SSU's pay scales and budgets.

22 Q. **Mr. Katz, now that you have covered; (a) the shortcomings you see in SSU's**
23 **data, and; (b) other data you say is relevant and which SSU did not take into**
24 **account, is there any other data the PSC should take into account?**

25

1 A. Yes. There is one piece general economic data that the PSC should again be
2 made aware of when considering the use of pay surveys to help establish fair
3 pay levels. Of all the official economic industry groupings (e.g.,
4 manufacturing, transportation, finance, retail trade, wholesale trade, mining,
5 construction) the Utilities industry is almost always the highest paying
6 industry. One school of thought is that this is due to the less than diligent
7 critique of salaries by the public and the PSC's that serve them and protect the
8 public's interests. Thus, if Utilities compare themselves with only other
9 utilities, the resultant pay will always be higher than what is known as the
10 market. All the more need to focus as narrowly as is reasonable on
11 comparing the local establishment (i.e., the water plant) to the immediately
12 surrounding local labor market.

13
14 In summary, in reviewing the data, analyses and conclusions submitted by
15 SSU, there appears to be no basis whatsoever for supporting a general
16 increase in the projected level of salary expense for the coming year.

17 **Q: What would be your summary recommendation concerning SSU's specific**
18 **request for increases for total corporate salary expense?**

19 A: It would be my recommendation that SSU should not be granted any pay
20 increase until they had satisfactorily justified any such increase, which they
21 have not yet done.

22 **Q. In the absence of any such increase, what position should the Commission**
23 **take regarding SSU salary expense?**

24 A. The Commission should insist that the company provide a valid compensation
25 survey that is market based, with the specific market being the various

1 localities in which the company operates. Any other methodology will
2 obviously produce inaccurate and unreliable data.

3
4 In addition, the Commission should require the company to demonstrate the
5 adoption of an effective and valid incentive program that is truly performance-
6 based. Such a program should include corresponding penalties for lower
7 performance. These plans need not include an increase in the total salary
8 expense of the company, since there would be offsetting gains and losses. In
9 addition, the company should be encouraged to develop plans to offer team
10 awards consistent with improved productivity, efficiency and profitability.
11 Unlike the proposals of the company, such plans would not require funding
12 from ratepayers, since they would reward employees with some portion of the
13 financial gains that accrue to the company stockholders due to improved
14 performance of its employees.

15
16 Concurrently, the Commission should require the company to demonstrate
17 that its total salary expense is reasonable and prudent. While it is clear from
18 the data supplied by the company that its salary proposals are not
19 substantiated, neither is it totally clear what total salaries might be justifiable.

20
21 It is a significant possibility that the adoption of a prudent and effective salary
22 administration program would result in lower total salary expense for the
23 company. It is clearly to the company's benefit that projections of future
24 salary expenses be as high as possible in this proceeding, in order that the
25 total gains from any future cost-cutting measures and incentive programs will

1 accrue only to the stockholders. The Commission should not be deluded by
2 this strategy.

3 **Q. Does this conclude your testimony?**

4 **A. Yes, it does.**

5

1 Q (By Mr. Beck) Mr. Katz, have you prepared a
2 summary of your testimony?

3 A Yes, I have.

4 Q Okay. Would you please tender it now?

5 A It was and is my professional opinion that
6 the surveys, data and analyses SSU offered in support
7 of their need for an increase in pay should be
8 rejected. I say this for three reasons, the same as
9 the three major headings of their testimony. Of those
10 three, first -- and it's first because it's the
11 easiest to explain -- is turnover. SSU in its direct
12 testimony appears to assert that the claimed high
13 turnover is due to the claimed low salaries.

14 COMMISSIONER KIESLING: Sir, would you get a
15 microphone right in front of you? One or the other, I
16 don't care which one. Thank you.

17 WITNESS KATZ: How's that?

18 COMMISSIONER KIESLING: That's good.

19 A I'll begin that paragraph again, if you
20 don't mind. First, and first because it's the easiest
21 to explain, is turnover. SSU in its direct testimony
22 appears to assert that the claimed high turnover is
23 due to the claimed low salaries. SSU simply did not
24 demonstrate that, thus there was no proof that
25 increasing salaries would reduce turnover.

1 Second, and second because it's ephemeral,
2 is the subject of salary structure. If I may explain,
3 a salary structure is a methodology companies use for
4 managing pay. It is not pay, it does not by itself
5 create a cost, therefore, the Public Service
6 Commission shouldn't consider a salary structure and
7 its arguments thereto because they don't create a cost
8 and employees don't get paid a salary structure.

9 Third, and last, is salaries. The salaries
10 SSU proposes as a target come from a marketplace that
11 SSU, one, has not defined; and two, appears to include
12 data from geographic locations where SSU does not do
13 any business. For example, nowhere has SSU stated who
14 their competitors are for employees. They appear to
15 assume or want you to assume that everywhere they
16 gathered data from, that's who their competitors are.
17 A brief example might be helpful here. A company
18 might prove through research that their competitors
19 for employees are those establishments or companies,
20 in the general use of the term -- are those
21 establishments who are located, say, within 10 miles
22 of their establishment. Then the company would
23 perform a pay survey of principally those companies.

24 Because SSU neither defined nor proved who
25 their competitors for employees are, the data they use

1 for such an undefined market should be rejected.

2 Thank you.

3 MR. BECK: Mr. Katz is available for cross
4 examination.

5 CHAIRMAN CLARK: Mr. Jacobs.

6 MR. JACOBS: I have none and --

7 CHAIRMAN CLARK: Mr. Twomey.

8 MR. JACOBS: -- Mr. Twomey asked me to tell
9 you he has none.

10 CHAIRMAN CLARK: Mr Feil.

11 MR. FEIL: I'm sorry, were you going to ask
12 Staff first, or -- that was the sequence you had used
13 before, but I'm ready to go.

14 MS. O'SULLIVAN: Staff has none.

15 MR. FEIL: All right. Thank you, Madam
16 Chairman.

17 **CROSS EXAMINATION**

18 BY MR. FEIL:

19 Q Mr. Katz, I have just a few questions for
20 you. You state at the bottom of your testimony on
21 Page 1 and beginning at the top of Page 2 that you
22 have designed and/or managed national pay surveys?

23 A Yes, that is correct.

24 Q Could you tell me what the purpose of those
25 pay surveys was?

1 A The purpose of those pay surveys was to set
2 pay of the United States Government for its 2 million
3 employees.

4 Q Could you tell me whether or not, if you
5 know, if government pay is competitive with the
6 market?

7 A Yes, government pay is competitive with the
8 market generally speaking, although there is argument
9 as to how much it lags the market.

10 Q So your answer is that government pay is
11 competitive with the market pay, but there's a
12 question as to whether or not it lags behind the
13 market?

14 A That is correct.

15 CHAIRMAN CLARK: Mr. Katz, just let me ask
16 something. When you say "government," what do you
17 mean?

18 MR. KATZ: I mean the Federal Government.

19 CHAIRMAN CLARK: Okay.

20 Q (By Mr. Feil) Have you ever determined
21 whether or not the pay of a private firm or company
22 was competitive with the market?

23 A Yes.

24 Q Which firm?

25 A I've done that for the Miter Corporation.

1 I've done it for Phillip Morris. I've done it for
2 General Dynamics.

3 Q All right.

4 A I have done it for Xerox, and I hasten to
5 add I did not do it for the entire corporation, I did
6 it for portions thereof. Those were either clients of
7 mine or those were corporations whom I testified
8 against using their data.

9 Q Corporations that you have testified against
10 using their data. So are you saying that you were
11 hired by the corporation to do the work, or you were
12 hired by a defendant or plaintiff in a lawsuit to do
13 that work?

14 A I was hired by plaintiff to do that work
15 concerning the pay and personnel practices of the
16 employers -- of some of the employers I mentioned.

17 Q Okay. Have you been hired by any employers,
18 such as the corporations you've mentioned, to
19 determine whether or not their pay is competitive with
20 market levels?

21 A Yes. They are the same ones. And to
22 separate those from those I testified against to those
23 I testified for, in testifying for or providing
24 information directly to the corporation at their
25 expense, would be Miter Corporation, Xerox Corporation

1 and Phillip Morris.

2 Q Okay. You say on Page 2, Line 10 of your
3 testimony --

4 A I'm sorry, I would add additionally General
5 Dynamics; that case is underway.

6 Q And your testimony was before that you did
7 pay studies for portions of those corporations, but
8 not the entire corporation. Did I understand that
9 correctly?

10 A That is correct.

11 Q You say on Page 2, Line 10 of your testimony
12 that you have been an expert witness in employment and
13 paid discrimination suits. Have you ever testified as
14 an expert regarding whether or not -- strike that
15 question.

16 Later on in your testimony you refer to Page
17 2, Line 21 of your testimony. The purpose of your
18 testimony concerned the administration of salary
19 programs within the Company, i.e. SSU. Do you see
20 that reference?

21 A Yes, I do.

22 Q Could you describe for me SSU's license
23 attainment salary program?

24 A No, I cannot.

25 Q Could you explain for me SSU's salary

1 promotion program?

2 A No, I cannot.

3 Q Could you explain for me SSU's merit matrix
4 compensation program?

5 A No, I cannot.

6 Q Can you tell me how many counties, how many
7 Florida counties, SSU has plants in?

8 A No, I cannot tell you specifically.

9 Q Can you tell me how many plants that SSU
10 owns and operates are within 25 miles of a major
11 metropolitan area?

12 A No, I cannot tell you that.

13 Q You mention in your summary concerning
14 salary structure. Are you aware of SSU's pay
15 practices regarding hiring and the pay level paid to
16 new hires in relationship to the salary structure?

17 A No.

18 Q You say on Page 4 of your testimony at the
19 top that salary structure has little to do with actual
20 pay. Is that correct? Do you see that reference?

21 A Yes, I do.

22 Q That the government -- well, the United
23 States Government determines and sets pay structures,
24 do they not?

25 A Yes.

1 Q Well, is your statement that salary
2 structure has little to do with actual pay applied
3 equally to the government as it does, according to
4 your testimony, to SSU?

5 A Yes.

6 Q Then why is it that the government and SSU
7 would set salary structures?

8 A Salary structures are set by both
9 organizations as a way of administering the pay they
10 determine to be at the market, and they administer it
11 internally in order to determine pay. Externally you
12 don't use or need salary structures.

13 Q Okay. Thank you for that clarification.

14 Mr. Katz, if you would assume for a moment
15 that SSU hires new hires within a set level, a set
16 percentage of the bottom of the salary structure, if
17 the salary structure would change, wouldn't the pay
18 paid to individual employees, new hires, change as
19 well?

20 A No.

21 Q It would not?

22 A No, it would not necessarily change. There
23 are two independent determinants of salary. One is
24 unaffected by the other, unless you choose to effect
25 it.

1 Q Well, I asked you to assume that SSU had a
2 policy of hiring new hires within a set range of the
3 salary structure. So if that is true, wouldn't it
4 also be true that the pay of those new hires would
5 also change?

6 A Yes.

7 Q Do you know whether or not the government
8 has a practice of setting salaries for new hires
9 within a set level of salary structure?

10 A Yes.

11 Q Okay. Thank you. Could I refer you to --

12 A But they do not administer it the way your
13 hypothetical just proposed to me.

14 Q Okay. Could I refer you to Page 6 of your
15 testimony, Line 18?

16 A I'm there. Line 18 is blank. I'm sorry,
17 mine may not agree with yours. Would you read that
18 portion of it?

19 Q Oh, I'm sorry. Let me read the entire
20 sentence if I would. I was just going to refer to a
21 portion of it. But you say in the sentence, "Because
22 of competitive pressures and the wide availability of
23 detailed salary surveys." Do you see that reference?

24 A Yes.

25 Q I was going to ask you regarding average

1 salaries, that reference there, do you mean average
2 salaries within job classifications?

3 A Let me consider whether I meant that, or
4 both average salaries in general as well as in job
5 classifications.

6 I meant both, within job classifications and
7 within all classifications.

8 Q All right. Thank you. Could I refer you to
9 the next page of your testimony, Page 7. And I hope
10 the lines of your testimony do not differ. I am going
11 to ask you a few questions to the motivation and
12 personality reference there.

13 A Yes.

14 Q You refer to a 1954 edition; is that
15 correct?

16 A Yes.

17 Q Could you tell me whether or not there were
18 any subsequent editions to that?

19 A I do not personally know if there were.
20 What I do know is that as of 1992 -- and I believe
21 1993 -- that edition was being taught as the
22 principal -- as one of the three principal studies
23 involved with motivation and compensation and being
24 taught by the American Compensation Association.

25 Q So you do not know whether or not there was

1 a 1972 edition of that volume?

2 A No, I do not.

3 Q Do you know whether a 1972 edition to that
4 volume would have the same principle that you have
5 espoused here or quoted that volume for?

6 A I don't know.

7 Q Could I turn you to Page 11 of your
8 testimony? Near the top, around Line 5 where you say,
9 "the utility industry is almost always the highest
10 paying industry."

11 A Yes.

12 Q Do you have any empirical proof supporting
13 that notion, sir?

14 A I did not prepare empirical proof for the
15 purpose of this articulation in my testimony. But in
16 my long experience using survey data on a national
17 basis, it had been my experience over 30 years of
18 utilizing and looking at that data that the utility
19 industry, as compared to all other major industry
20 classifications, was either the highest paying or next
21 to the highest paying industry. Finance, insurance
22 and real estate is the competitor for the highest
23 paying.

24 Q So your answer is, no, you have no empirical
25 proof, but with that qualification. That's based on

1 your experience?

2 A No. I have empirical proof. I did not
3 prepare it, and I am not able to present it,
4 therefore, at this time.

5 Q Would you agree that it stands to reason
6 that one of the reasons perhaps -- strike that.

7 Could I refer you to your Exhibit PAK-1,
8 Page 3 of 3, which has now been identified as Exhibit
9 165.

10 A Yes.

11 Q On Line 99 there you have Southern States
12 and a revenues figure. Do you know whether or not the
13 revenues figure there is for water only or for water
14 and wastewater combined?

15 A Before I answer that, on my Page 3 of 3 that
16 I'm looking at, I see Southern States listed as
17 No. 88.

18 Q Excuse me. Are you on PAK-1?

19 A I'm on PAK-2, Page 3 of 3.

20 Q Excuse me. I meant to refer you to PAK-1.
21 If I did not, I apologize.

22 A Thank you.

23 Q And I'm referring to Row 99, Column 3. I
24 guess it would be revenues. Could you tell me whether
25 or not that figure is a water only figure or water and

1 wastewater combined figure?

2 A I'm still trying to locate that particular
3 one. I'm looking at PAK-1. Would you reiterate what
4 page number?

5 Q I'm on Page 3 of 3.

6 A I found Page 3 of 3. It was out of order,
7 my apologies. I see Line No. 99 with Southern States
8 Utilities.

9 Q Right. And I'm referring to the revenues
10 column.

11 A Yes.

12 Q And my question is whether or not you know
13 if that is a water only figure or a water and
14 wastewater figure?

15 A According to the publisher of that survey,
16 that is a water only figure.

17 Q Okay, thank you. And with regard to PAK-2,
18 Page 3 of 3.

19 A Yes. Line 88?

20 Q Yes, sir. The first column, number of
21 customers, do you know if that is a water only figure
22 or water and wastewater?

23 A Yes, it is a water only according to the
24 publisher of the survey.

25 Q And then the next column over, payroll, do

1 you know whether or not that is a total company or a
2 water only figure?

3 A That according to the publisher of the data,
4 it's a water only figure.

5 Q Do you have the NAWC study here with you?

6 A Yes, I do.

7 Q Have you reviewed the notes to the NAWC
8 study?

9 A Yes, I have them in front of me.

10 Q Okay. Have you reviewed the notes of the
11 NAWC study?

12 A Yes.

13 Q Did you see a notation there for Southern
14 States Utilities?

15 A Yes, I did.

16 Q Could you read that notation, please?

17 A Yes.

18 Q Southern States Utilities, Incorporated --
19 includes wastewater -- sorry, includes water and
20 wastewater operations. Financial data, other than the
21 information presented is not available for water
22 operations only.

23 Okay.

24 MR. FEIL: May have a moment to confer? I
25 may be finished.

1 Q (By Mr. Feil) One last question. Mr. Katz
2 do you believe as a general proposition if salaries
3 were increased turnover would be reduced?

4 A No.

5 MR. FEIL: I have nothing further.

6 CHAIRMAN CLARK: Staff you had indicated no
7 questions.

8 MS. O'SULLIVAN: That is correct.

9 CHAIRMAN CLARK: Commissioners? Redirect?

10 MR. BECK: Yes.

11 **REDIRECT EXAMINATION**

12 BY MR. BECK:

13 Q Mr. Katz, your last answer "no" to the
14 question about that turnover relating to salary
15 increases, could you please explain your answer?

16 A Yes. Turnover is the result of a wide
17 variety of factors. For example, someone may leave
18 the company and report that they left for a higher
19 paying job, and one would assume, as SSU assumed, that
20 because they left for a higher paying job SSU's pay
21 for too low.

22 What they failed to take into account in
23 that illustrative example is that the higher paying
24 job they left for may not, in fact, be the same job
25 they had. It might be a female clerical employee,

1 homemaker who had achieved a college degree part time
2 and left for a higher paying job; a professional
3 position, not the same position that she had before.
4 Interestingly enough, SSU in its exit interviews asked
5 for information like that. On its exit and review
6 form, there's a variety of reasons that the
7 interviewer is able to put down as to why they left
8 for higher pay.

9 What I find interesting is that those
10 variety of reasons have never been indicated in SSU's
11 testimony other than they left for higher pay,
12 wanting, apparently, the Commission to believe that
13 they left because SSU's pay for that job they left was
14 too low. I don't know why SSU didn't report the
15 additional data they attempted at some point to
16 gather -- whether they gathered it or not I do not
17 know.

18 Q Mr. Katz, earlier in the questioning by
19 Mr. Feil he asked you about a hypothetical, about
20 Southern States and whether the federal government
21 administered their salary structure in accordance with
22 that hypothetical. Could you explain your answer to
23 that?

24 A Yes. When the federal government changes
25 their salary structure, not all employees move within

1 the salary structure. That has to be a separate
2 determination now being left up to federal agencies.
3 At one time it was a lockstep operation. No longer
4 that is the case.

5 Q Thank you. That's all I have.

6 CHAIRMAN CLARK: Thank you. Exhibits.

7 MR. BECK: Citizens move Exhibit 165.

8 CHAIRMAN CLARK: Without objection Exhibit
9 165 is admitted in the record. Thank you, Mr. Katz.
10 You're excused.

11 Witness Katz excused.)

12 - - - - -

13 (Exhibit No. 165 received in evidence.)

14 COMMISSIONER CLARK: Who's up next?

15 MR. BECK: We have Mr. Bidy. Ms. Dismukes
16 is here also.

17 CHAIRMAN CLARK: Let me ask Staff, I know we
18 had indicated we would start at 10:30 with our
19 witnesses from DEP. Do we know if they are available
20 or would be available, say, in the next 15 minutes?

21 MR. PELLEGRINI: There's some concern,
22 Chairman Clark, that they don't appear to be assembled
23 at the right place at this time. Maybe it would be
24 appropriate to take a break.

25 CHAIRMAN CLARK: We'll take a break and well

1 get things cleared away on getting the
2 teleconferencing. And after we do the
3 teleconferencing we will start with Mr. Bidy.

4 I would remind everyone again to review the
5 witness list. If you don't have any questions for the
6 witness, please communicate it to the party who is
7 sponsoring it so we can stipulate some witnesses into
8 the record, if that's possible.

9 We'll take a break until about 25 after.

10 (Brief recess.)

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**SOUTHERN STATES UTILITIES
 ILLUSTRATION OF CAPITAL RECOVERY**

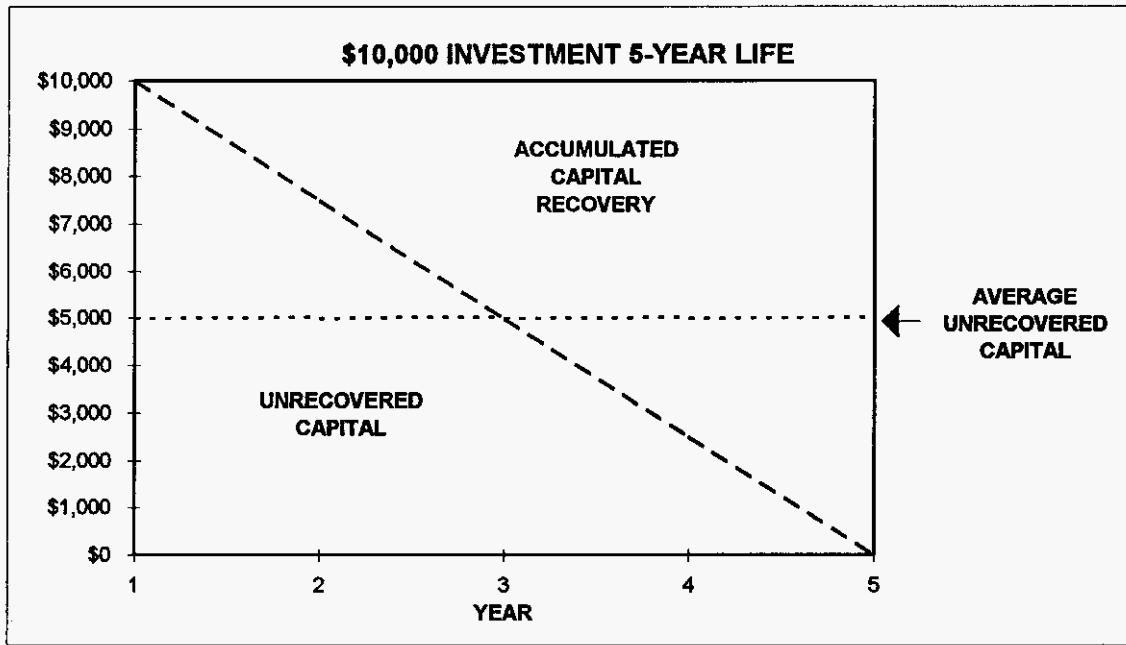
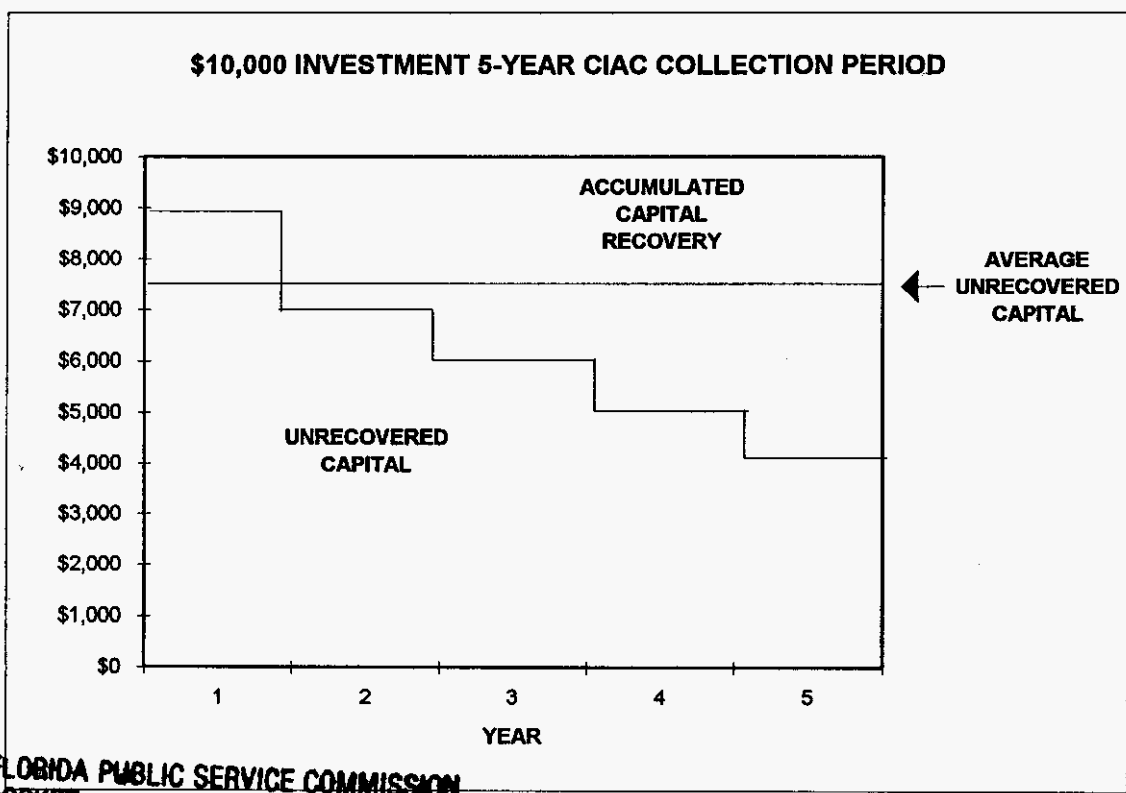


FIGURE A



FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
 NO. 950495-WS **EXHIBIT NO.** 162 **FIGURE B**
COMPANY/
WITNESS: SSU/GOWER
DATE: 4/29/96

DOCUMENT NUMBER-DATE
06033 JUN 28 88
FPSC-RECORDS/REPORTING

DOCKET 95D495-WS
EXHIBIT NO. 163
C. NO. 96-04227

EXHIBIT (JEG-1)

PAGE 1 OF 14

*SSU/COLLIER/MARCO ISLAND
RAW WATER RATE STUDY*

GUASTELLA ASSOCIATES, INC.

*210 Winter Street, Weymouth, Massachusetts 02188
88 Main Street, Peapack, NJ 07977*

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 95D495-WS EXHIBIT NO 163
COMPANY/
WITNESS: SSU/Guastella
DATE: 4/29/96

DOCUMENT NUMBER-DATE
06032 JUN 28 96
FPSC-RECORDS/REPORTING

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SCHEDULE I:	Raw Water Allocation Symbols

The purpose of this study is to determine a rate for the raw water source located on the mainland and serving the Marco Island and Marco Shores service areas. The study produces a raw water rate of \$1.75 per 1,000 gallons, which is calculated on the basis of an allocation of the Company's proposed revenue requirement, using its test year ending December 31, 1996.

Each revenue requirement component has been allocated to "Raw Water" and "Other." The "Raw Water" category includes items of investment and expenses associated with the production and delivery of raw water from the mainland sources to the water treatment plant on Marco Island. The "Other" category includes all investment and expenses associated with the treatment and distribution of treated water to the customers.

Schedule A contains a summary of the allocation of each major revenue requirement component as described in column 1. Columns 2, 3 and 4 reflect the Company's development of the revenue requirement components for a 1996 proforma test year. The allocations to Raw Water (column 7) and Other (column 8) are explained by either a separate support schedule (column 5) or an allocation symbol (column 6). Explanations of the allocation symbols are shown on Schedule I. As reflected in column 7, the total revenue requirement attributed to raw water is \$2,709,285. This figure has been divided by 1,544,840 thousand gallons of raw water in order to calculate a rate of \$1.75 per thousand gallons; this calculation is also shown on Schedule A.

Schedule B contains the Rate Base allocation which, as reflected on Schedule A, is used to allocate the revenue

requirement components related to Return and Income Taxes. Schedule B has a format which is similar to Schedule A. The rate base components are set forth in column 1. The proforma figures for 1996 are developed in columns 2, 3 and 4, and the allocations to Raw Water are set forth in column 7. The allocation of each rate base component is supported by either a schedule (column 5) or an allocation symbol.

Schedule C contains the allocation to Raw Water of the utility plant in service by primary plant account. Column 5 refers to allocation symbols which are explained on Schedule I.

Schedules D, E, F and G contain the allocations of Accumulated Depreciation, CIAC and related amortization, Operation and Maintenance expenses and Depreciation Expense. Once again, the allocation symbols are explained on Schedule I. Schedule G.1 is a summary of the depreciation expense by primary plant account. Schedule H is an allocation of each component of Taxes, Other Than Income Taxes.

The information and data used to develop the allocation symbols (Schedule I) 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 weighting of other allocations.

SSU – MARCO ISLAND
Raw Water Rate Study
Cost Allocation

Schedule A

Summary of Revenue Requirement Allocations

Line No.	Col. 1 Description	Col. 2 Test Year 1996	Col. 3 Adjusmts	Col. 4 ProForma 1996	Col. 5 Support Sched	Col. 6 Alloc Symbol	Col. 7 Raw Water	Col. 8 Other
1	O & M Expense	\$ 2,792,960	\$ 0	\$ 2,792,960	F		\$ 143,655	\$ 2,649,305
2	Depreciation, Net	1,620,690	0	1,620,690	G		236,902	1,383,788
3	Amortizations	293,162	0	293,162		d	7,616	285,546
4	Taxes, Other	1,110,321	129,131	1,239,452	H		428,033	811,419
5	Income Taxes	(39,448)	1,057,266	1,017,818	B		406,008	611,810
6	Return Requirement	2,044,744	1,683,185	3,727,929	B		1,487,071	2,240,858
7	Revenue Requirement	<u>\$ 7,822,429</u>	<u>\$ 2,869,582</u>	<u>\$ 10,692,011</u>			<u>\$ 2,709,285</u>	<u>\$ 7,982,726</u>
8	Percentage						<u>25.34%</u>	<u>74.66%</u>

Raw Water Cost per 1,000 Gallons:

$$\$2,709,285 / 1,544,840 \text{ thousand gals.} = \underline{\underline{\$1.75}} \text{ per 1,000 gals.}$$

SSU – MARCO ISLAND
Raw Water Rate Study
Cost Allocation

Rate Base Allocation

Line No.	Col. 1 Description	Col. 2 1996 Avg Balance	Col. 3 Adjustmts	Col. 4 ProForma Balance	Col. 5 Support Schedule	Col. 6 Allocation Symbol	Col. 7 Raw Water	Col. 8 Other
1	Utility Plant in Service—Water	\$ 50,846,701	\$ (466,065)	\$ 50,380,636	C		\$16,985,804	\$ 33,394,832
2	Construction Work in Progress	0	0	0	C		0	0
3	Accumulated Depreciation	(11,367,741)	72,429	(11,295,312)	D		(2,243,526)	(9,051,786)
4	Contributions in Aid of Constr.	(6,062,393)	5,310	(6,057,083)	E		(1,032,499)	(5,024,584)
5	Accum. Amortization of CIAC	1,571,147	(1,420)	1,569,727	E		322,359	1,247,368
6	Unfunded OPEB's	(43,493)	0	(43,493)		i	(400)	(43,093)
7	Deferred Taxes	196,578	0	196,578		b	0	196,578
8	Miscellaneous	1,319,227	0	1,319,227	C		444,711	874,516
9	Working Capital Allowance	267,851	0	267,851	F		17,957	249,894
10	Rate Base	<u>\$ 36,727,877</u>	<u>\$ (389,746)</u>	<u>\$ 36,338,131</u>			<u>\$14,494,406</u>	<u>\$ 21,843,725</u>
11	Percentage						<u>39.89%</u>	<u>60.11%</u>

SSU – MARCO ISLAND
Raw Water Rate Study
Cost Allocation

Schedule C

Utility Plant in Service by Primary Account

Line No.	Col. 1 Account No. and Name	Col. 2 1996 Avg Balance	Col. 3 Col. 3 Adjusmt	Col. 4 Col. 4 Adjusted Balance	Col. 5 Col. 5 Alloc. Symbol	Col. 6 Col. 6 Raw Water	Col. 7 Col. 7 Other
1	INTANGIBLE PLANT:						
2	301.1–Organization	\$ 0	\$ 0	\$ 0	e	\$ 0	\$ 0
3	302.1–Franchises	3,759	0	3,759	e	72	3,687
4	339.1–Other Plant & Misc. Equipment	0	0	0	e	0	0
5	SOURCE OF SUPPLY / PUMPING PLANT:						
6	303.2–Land & Land Rights	9,770,953	0	9,770,953	a	9,420,855	350,098
7	304.2–Structures & Improvements	763,028	(47,308)	715,720	a	598,740	116,980
8	305.2–Collecting & Impound Reservoir	186,257	(11,548)	174,709	c	174,709	0
9	307.2–Wells & Springs	613,053	(38,009)	575,044	c	0	575,044
10	308.2–Infiltration Galleries & Tunnels	264,911	(16,424)	248,487	c	248,487	0
11	309.2–Supply Mains	5,689,938	(352,776)	5,337,162	a	3,448,958	1,888,204
12	310.2–Power Generation Equipment	296,336	0	296,336	c	296,336	0
13	311.2–Pumping Equipment	3,850,538	0	3,850,538	a	2,778,961	1,071,577
14	339.2–Other Plant & Misc. Equipment	0	0	0	a	0	0
15	WATER TREATMENT PLANT:						
16	303.3–Land & Land Rights..	0	0	0	b	0	0
17	304.3–Structures & Improvements	3,377,038	0	3,377,038	b	0	3,377,038
18	320.3–Treatment Equipment	14,597,392	0	14,597,392	b	0	14,597,392
19	321.3–Permeators	1,530,087	0	1,530,087	b	0	1,530,087
20	339.3–Other Plant & Misc. Equipment	13,901	0	13,901	b	0	13,901
21	TRANSMISSION & DISTRIBUTION PLANT:						
22	303.4–Land & Land Rights	0	0	0	b	0	0
23	304.4–Structures & Improvements	0	0	0	b	0	0
24	330.4–Distribution Reservoirs	1,906,697	0	1,906,697	b	0	1,906,697
25	331.4–Transmission & Distribution	3,681,114	0	3,681,114	b	0	3,681,114
26	333.4–Services	1,842,101	0	1,842,101	b	0	1,842,101
27	334.4–Meters & Installations	1,309,987	0	1,309,987	b	0	1,309,987
28	335.4–Hydrants.	172,578	0	172,578	b	0	172,578
29	339.4–Other Plant & Misc. Equipment	0	0	0	b	0	0
30	GENERAL PLANT – SEWER:						
31	303.5–Land & Land Rights	16,575	0	16,575	e	317	16,258
32	304.5–Structures & Improvements	168,997	0	168,997	e	3,232	165,765
33	340.5–Office Furniture & Equip.	104,440	0	104,440	e	1,997	102,443
34	340.51–Computer Equipment	278,010	0	278,010	e	5,317	272,693
35	341.5–Transportation Equipment	160,387	0	160,387	e	3,067	157,320
36	342.5–Stores Equipment	1,505	0	1,505	e	29	1,476
37	343.5–Tools, Shop, Garage Equip.	58,211	0	58,211	e	1,113	57,098
38	344.5–Laboratory Equipment	52,788	0	52,788	e	1,010	51,778
39	345.5–Power Operated Equipment	66,669	0	66,669	e	1,275	65,394
40	346.5–Communication Equipment	30,250	0	30,250	e	579	29,671
41	347.5–Miscellaneous Equipment	13,600	0	13,600	e	260	13,340
42	348.5–Other Tangible Plant	25,601	0	25,601	e	490	25,111
	Total UPIS	\$ 50,846,701	\$ (466,065)	\$ 50,380,636		\$ 16,985,804	\$ 33,394,832
42	Percentage					33.71%	66.29%

SSU – MARCO ISLAND
Raw Water Rate Study
Cost Allocation

Schedule D

Accumulated Depreciation Allocation

Line No.	Col. 1 Account No. and Name	Col. 2 1996 Avg Balance	Col. 3 Col. 3 Adjustmt	Col. 4 Adjusted Balance	Col. 5 Col. 5 Alloc Symbol	Col. 6 Col. 6 Raw Water	Col. 7 Col. 7 Other
1	INTANGIBLE PLANT:						
2	301.1–Organization	\$ 0	\$ 0	\$ 0	e	\$ 0	\$ 0
3	302.1–Franchises	1,605	0	1,605	e	55	1,550
4	339.1–Other Plant & Misc. Equipment	0	0	0	e	0	0
5	SOURCE OF SUPPLY / PUMPING PLANT:						
6	303.2–Land & Land Rights	0	0	0	a	0	0
7	304.2–Structures & Improvements	183,307	(11,365)	171,942	a	155,992	15,950
8	305.2–Collecting & Impound Reservoir	49,801	(3,088)	46,713	c	46,713	0
9	307.2–Wells & Springs	34,797	(2,157)	32,640	b	0	32,640
10	308.2–Infiltration Galleries & Turnels	57,324	(3,554)	53,770	c	53,770	0
11	309.2–Supply Mains	842,991	(52,265)	790,726	a	547,714	243,012
12	310.2–Power Generation Equipment	68,243	0	68,243	c	68,243	0
13	311.2–Pumping Equipment	1,595,206	0	1,595,206	a	1,354,101	241,105
14	339.2–Other Plant & Misc. Equipment	0	0	0	a	0	0
15	WATER TREATMENT PLANT:						
16	303.3–Land & Land Rights	0	0	0	b	0	0
17	304.3–Structures & Improvements	785,039	0	785,039	b	0	785,039
18	320.3–Treatment Equipment	3,086,293	0	3,086,293	b	0	3,086,293
19	321.3–Permeators	1,273,601	0	1,273,601	b	0	1,273,601
20	339.3–Other Plant & Misc. Equipment	278	0	278	b	0	278
21	TRANSMISSION & DISTRIBUTION PLANT:						
22	303.4–Land & Land Rights	0	0	0	b	0	0
23	304.4–Structures & Improvements	0	0	0	b	0	0
24	330.4–Distribution Reservoirs	501,859	0	501,859	b	0	501,859
25	331.4–Transmission & Distribution	1,262,055	0	1,262,055	b	0	1,262,055
26	333.4–Services	442,495	0	442,495	b	0	442,495
27	334.4–Meters & Installations	634,044	0	634,044	b	0	634,044
28	335.4–Hydrants	57,377	0	57,377	b	0	57,377
29	339.4–Other Plant & Misc. Equipment	0	0	0	b	0	0
30	GENERAL PLANT – SEWER:						
31	303.5–Land & Land Rights	0	0	0	e	0	0
32	304.5–Structures & Improvements	39,807	0	39,807	e	1,372	38,435
33	340.5–Office Furniture & Equip.	51,619	0	51,619	e	1,779	49,840
34	340.51–Computer Equipment	136,171	0	136,171	e	4,693	131,478
35	341.5–Transportation Equipment	128,671	0	128,671	e	4,435	124,236
36	342.5–Stores Equipment	552	0	552	e	19	533
37	343.5–Tools, Shop, Garage Equip.	31,272	0	31,272	e	1,078	30,194
38	344.5–Laboratory Equipment	9,419	0	9,419	e	325	9,094
39	345.5–Power Operated Equipment	56,285	0	56,285	e	1,940	54,345
40	346.5–Communication Equipment	15,657	0	15,657	e	540	15,117
41	347.5–Miscellaneous Equipment	3,873	0	3,873	e	133	3,740
42	348.5–Other Tangible Plant	18,100	0	18,100	e	624	17,476
43	Total Accum. Depreciation	<u>\$ 11,367,741</u>	<u>\$ (72,429)</u>	<u>\$ 11,295,312</u>		<u>\$ 2,243,526</u>	<u>\$ 9,051,786</u>
	Percentage					<u>19.86%</u>	<u>80.14%</u>

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Raw Water Rate Study
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Schedule E

CIAC and Accumulated Amortization of CIAC Allocation

Line No.	Col. 1 Account No. and Name	Col. 2 1996 Avg Balance	Col. 3 Col. 3 Adjustmt	Col. 4 Col. 4 Adjusted Balance	Col. 5 Col. 5 Allocation Symbol	Col. 6 Col. 6 Raw Water	Col. 7 Col. 7 Other
1	Contributions in Aid of Construction:						
2	Plant Capacity Fees	\$ 2,823,486		\$ 2,823,486	g	\$ 951,797	\$ 1,871,689
3	Main Extensions	1,207,120		1,207,120	b	0	1,207,120
4	Meter Installation Fees	188,048		188,048	b	0	188,048
5	Contributed Lines	451,783		451,783	b	0	451,783
6	Other Contributed Property	244,712	(5,310)	239,402	g	80,702	158,700
7	Service Installation Fees	1,147,244		1,147,244	b	0	1,147,244
8	Total CIAC	\$ <u>6,062,393</u>	\$ <u>(5,310)</u>	\$ <u>6,057,083</u>		\$ <u>1,032,499</u>	\$ <u>5,024,584</u>
9	Percentage					<u>17.05%</u>	<u>82.95%</u>
10	Accum. Amortization of CIAC:						
11	Plant Capacity Fees	\$ 902,213		\$ 902,213	g	\$ 304,136	\$ 598,077
12	Main Extensions	129,721		129,721	b	0	129,721
13	Meter Installation Fees	36,868		36,868	b	0	36,868
14	Contributed Lines	78,307		78,307	b	0	78,307
15	Other Contributed Property	55,478	(1,420)	54,058	g	18,223	35,835
16	Service Installation Fees	368,560		368,560	b	0	368,560
17	Total Amortization of CIAC	\$ <u>1,571,147</u>	\$ <u>(1,420)</u>	\$ <u>1,569,727</u>		\$ <u>322,359</u>	\$ <u>1,247,368</u>
18	Percentage					<u>20.54%</u>	<u>79.46%</u>

SSU – MARCO ISLAND
Raw Water Rate Study
Cost Allocation

Allocation of Operation and Maintenance Expenses

Line No.	Col. 1 Acct. No. and Description	Col. 2 1996	Col. 3 Adjustmts	Col. 4 Adjusted Total	Col. 5 Alloc Symbol	Col. 6 Raw Water	Col. 7 Other
1	SOURCE, TREATMENT, T/D EXPENSE:						
2	601-Salaries & Wages	\$ 560,216	\$ 0	\$ 560,216	a	\$ 7,300	\$ 552,916
3	604-Employee Benefits	127,817	0	127,817	h	1,666	126,151
4	615-Purchased Power	849,550	0	849,550	a	133,932	715,618
5	616-Fuel for Power	3,171	0	3,171	b	0	3,171
6	618-Chemicals	313,774	0	313,774	b	0	313,774
7	620-Materials & Supplies	217,038	0	217,038	b	0	217,038
8	631-Contract Services, Engr.	2,977	0	2,977	b	0	2,977
9	635-Contract Services, Other	163,324	0	163,324	b	0	163,324
10	642-Equipment Rental	1,143	0	1,143	b	0	1,143
11	650-Transportation Exp.	28,309	0	28,309	h	369	27,940
12	658-Workman's Comp. Ins.	8,746	0	8,746	h	114	8,632
13	675-Misc. Expenses	29,514	0	29,514	b	0	29,514
14	CUSTOMER BILLING:						
15	601-Salaries & Wages	69,418	0	69,418	b	0	69,418
16	604-Employee Benefits	15,911	0	15,911	b	0	15,911
17	615-Purchased Power	196	0	196	b	0	196
18	620-Materials & Supplies	3,509	0	3,509	b	0	3,509
19	641-Property Rental	0	0	0	b	0	0
20	642-Equipment Rental	0	0	0	b	0	0
21	650-Transportation Exp.	2,530	0	2,530	b	0	2,530
22	658-Workman's Comp. Ins.	1,089	0	1,089	b	0	1,089
23	670-Bad Debt Expense	8,668	0	8,668	b	0	8,668
24	675-Misc. Expenses	20,753	0	20,753	b	0	20,753
25	GENERAL & ADMINISTRATIVE:						
26	601-Salaries & Wages	178,138	0	178,138	f	133	178,005
27	604-Employee Benefits	40,745	0	40,745	f	31	40,714
28	615-Purchased Power	2,995	0	2,995	f	2	2,993
29	620-Materials & Supplies	8,732	0	8,732	f	7	8,725
30	631-Contract Services, Engr.	1,203	0	1,203	f	1	1,202
31	632-Contract Services, Acctg.	6,389	0	6,389	f	5	6,384
32	633-Contract Services, Legal	3,850	0	3,850	f	3	3,847
33	635-Contract Services, Other	14,560	0	14,560	f	11	14,549
34	641-Property Rental	6,608	0	6,608	f	5	6,603
35	642-Equipment Rental	417	0	417	f	0	417
36	650-Transportation Exp.	2,931	0	2,931	f	2	2,929
37	656-Insurance, Vehicle	4,380	0	4,380	f	3	4,377
38	657-Insurance, Gen. Liability	10,872	0	10,872	f	8	10,864
39	658-Workman's Comp. Ins.	2,741	0	2,741	f	2	2,739
40	659-Insurance, Other	894	0	894	f	1	893
41	660-Advertising	1,854	0	1,854	f	1	1,853
42	666-Rate Case Exp.	26,446	0	26,446	f	20	26,426
43	667-Reg. Commission Exp.	2,124	0	2,124	f	2	2,122
44	675-Misc. Expenses	49,428	0	49,428	f	37	49,391
45	Total	\$ 2,792,960	\$ 0	\$ 2,792,960		\$ 143,655	\$ 2,649,305
46	Percentage					5.14%	94.86%

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 Raw Water Rate Study
 Cost Allocation

Schedule G

Depreciation Expense Allocation

Line No.	Col. 1 Description	Col. 2 1996	Col. 3 Allocation Symbol	Col. 4 Raw Water	Col. 5 Other
1	Intangible Plant	\$ 94	d	\$ 2	\$ 92
2	Source of Supply	410,528	a	280,253	130,275
3	Water Treatment	1,073,078	b	0	1,073,078
4	Transmission & Distribution	252,634	b	0	252,634
5	General Plant:				
6	Other Than Transportation	76,824	d	1,240	75,584
7	Transportation Equipment	<u>26,737</u>	d	<u>432</u>	<u>26,305</u>
8	Total Depreciation – UPIS	1,839,895		281,927	1,557,968
9	Amortization of CIAC	<u>(219,205)</u>	Sch. E	<u>(45,025)</u>	<u>(174,180)</u>
10	Total Annual Depreciation	\$ <u>1,620,690</u>		\$ <u>236,902</u>	\$ <u>1,383,788</u>
11	Percentage			<u>14.62%</u>	<u>85.38%</u>

SSU – MARCO ISLAND
Raw Water Rate Study
Cost Allocation

Depreciation Expense by Primary Account

Line No.	Col. 1 Account No. and Name	Col. 2 UPIS Balance Adj 12/31/96	Col. 3 Deprec. Rate	Col. 4 Annual Expense
1	INTANGIBLE PLANT:			
2	301.1 – Organization	\$ 0	2.50%	\$ 0
3	302.1 – Franchises	3,759	2.50%	94
4	339.1 – Other Plant & Misc. Equipment	0	4.00%	0
5	SOURCE OF SUPPLY / PUMPING PLANT:			
6	303.2 – Land & Land Rights	9,770,953	n/a	0
7	304.2 – Structures & Improvements	715,720	3.03%	21,686
8	305.2 – Collecting & Impound Reservoir	174,709	2.00%	3,494
9	307.2 – Wells & Springs	575,044	3.33%	19,149
10	308.2 – Infiltration Galleries & Tunnels	248,487	2.50%	6,212
11	309.2 – Supply Mains	5,337,162	2.86%	152,643
12	310.2 – Power Generation Equipment	296,336	5.00%	14,817
13	311.2 – Pumping Equipment	3,850,538	5.00%	192,527
14	339.2 – Other Plant & Misc. Equipment	0	4.00%	0
15	WATER TREATMENT PLANT:			
16	303.3 – Land & Land Rights	0	n/a	0
17	304.3 – Structures & Improvements	3,377,038	3.03%	102,324
18	320.3 – Treatment Equipment	14,597,392	4.55%	664,181
19	321.3 – Permeators	1,530,087	20.00%	306,017
20	339.3 – Other Plant & Misc. Equipment	13,901	4.00%	556
21	TRANSMISSION & DISTRIBUTION PLANT:			
22	303.4 – Land & Land Rights	0	n/a	0
23	304.4 – Structures & Improvements	0	3.03%	0
24	330.4 – Distribution Reservoirs	1,906,697	2.70%	51,481
25	331.4 – Transmission & Distribution	3,681,114	2.33%	85,770
26	333.4 – Services	1,842,101	2.50%	46,053
27	334.4 – Meters & Installations	1,309,987	5.00%	65,499
28	335.4 – Hydrants	172,578	2.22%	3,831
29	339.4 – Other Plant & Misc. Equipment	0	4.00%	0
30	GENERAL PLANT – SEWER:			
31	303.5 – Land & Land Rights	16,575	n/a	0
32	304.5 – Structures & Improvements	168,997	2.50%	4,225
33	340.5 – Office Furniture & Equip.	104,440	6.67%	6,966
34	340.51 – Computer Equipment	278,010	16.67%	46,344
35	341.5 – Transportation Equipment	160,387	16.67%	26,737
36	342.5 – Stores Equipment	1,505	5.56%	84
37	343.5 – Tools, Shop, Garage Equip.	58,211	6.25%	3,638
38	344.5 – Laboratory Equipment	52,788	6.67%	3,521
39	345.5 – Power Operated Equipment	66,669	8.33%	5,554
40	346.5 – Communication Equipment	30,250	10.00%	3,025
41	347.5 – Miscellaneous Equipment	13,600	6.67%	907
42	348.5 – Other Tangible Plant	25,601	10.00%	2,560
43	Allocated General Plant			0
44	Total	<u>\$ 50,380,636</u>		<u>\$ 1,839,895</u>
45	CIAC Amortization:			
46	Plant Capacity Fees	\$ 2,823,486	4.68%	\$ 132,139
47	Main Extensions	1,207,120	2.33%	28,126
48	Meter Installation Fees	188,048	5.00%	9,402
49	Contributed Lines	451,783	2.33%	10,527
50	Other Contributed Property	239,402	4.32%	10,330
51	Service Installation Fees	1,147,244	2.50%	28,681
52	Total	<u>\$ 6,057,083</u>		<u>\$ 219,205</u>

SSU – MARCO ISLAND
Raw Water Rate Study
Cost Allocation

Schedule H

Allocation of Taxes, Other Than Income Tax

Line No.	Col. 1 Description	Col. 2 1996	Col. 3 Adjustmt	Col. 4 ProForma Amount	Col. 5 Allocation Symbol	Col. 6 Raw Water	Col. 7 Other
1	Payroll Taxes	\$ 59,533	\$ 0	\$ 59,533	i	548	\$ 58,985
2	Property Taxes	698,779	0	698,779	Sch. C	235,558	463,221
3	Revenue Taxes	<u>352,009</u>	<u>129,131</u>	<u>481,140</u>	Sch. B	<u>191,927</u>	<u>289,213</u>
4	Total Taxes, Other	<u>\$ 1,110,321</u>	<u>\$ 129,131</u>	<u>\$ 1,239,452</u>		<u>\$ 428,033</u>	<u>\$ 811,419</u>
5	Percentage					<u>34.53%</u>	<u>65.47%</u>

SSU – MARCO ISLAND
Raw Water Rate Study
Cost Allocation

Raw Water 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 producing or delivering raw water and do not impact their costs.	0.00%
4			
5			
6	c	Items bearing this symbol are allocated 100% to the production and delivery of raw water.	100.00%
7			
8			
9	d	Items bearing this symbol are allocated based on a 10% weighing of all other items.	
10			
11			
12	e	Items bearing this symbol are allocated based on a 10% weighing of all other items, excluding land.	
13			
14			
15	f	Expense items bearing this symbol are allocated based on a 10% weighing of all other items, excluding power and chemical costs.	
16			
17			
18	g	Items bearing this symbol are allocated based on the relationship of raw water plant to total plant in service.	
19			
20			
21	h	Items bearing this symbol are allocated based on the relationship of raw water field labor (source, pumping, treatment, and transmission/distribution) to total field labor costs.	1.30%
22			
23			
24		Total Field Labor	560,216
25		Raw Water Field Labor	7,300
26			
27	i	Items bearing this symbol are allocated based on the relationship of raw water labor to total labor costs.	0.92%
28			
29		Total Labor	807,772
30		Raw Water Related Labor	7,433

*SSU/COLLIER/MARCO ISLAND
EFFLUENT REUSE RATE STUDY*

GUASTELLA ASSOCIATES, INC.

*210 Winter Street, Weymouth, Massachusetts 02188
88 Main Street, Peapack, NJ 07977*

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SCHEDULE I:	Raw Water Allocation Symbols

The purpose of this study is to establish a rate for effluent reuse generally applicable for irrigation service on a contract basis to potential customers. The study produces an effluent reuse rate of \$0.87 per 1,000 gallons, which is calculated on the basis of an allocation of the Company's operating results for 1994, adjusted to reflect a full return on rate base.

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 filtering, pumping and distribution of effluent, excluding costs related to disposal to the deep injection well. The "Other" category includes all investment and expenses associated with the collection and treatment of wastewater.

Schedule A contains a summary of the allocation of each major revenue requirement component as described in column 1. Columns 2, 3 and 4 reflect the Company's development of the revenue requirement components for 1994, as adjusted. The allocations to effluent reuse (column 7) and Other (column 8) are explained by either a separate support schedule (column 5) or an allocation symbol (column 6). Explanations of the allocation symbols are shown on Schedule I. As reflected in column 7, the total revenue requirement attributed to effluent reuse is \$569,502. This figure has been divided by 654,138 thousand gallons of effluent in order to calculate a rate of \$0.87 per thousand gallons; this calculation is also shown on Schedule A.

Schedule B contains the Rate Base allocation which, as reflected on Schedule A, is used to allocate the revenue requirement components related to Return and Income Taxes. Schedule B has a format which is similar to Schedule A. The rate base components are set forth in column 1. The adjusted 1994 figures are developed in columns 2, 3 and 4, and the allocations to Effluent Reuse are set forth in column 7. The allocation of each rate base component is supported by either a schedule (column 5) or an allocation symbol.

Schedule C contains the allocation to Effluent Reuse of the utility plant in service by primary plant account. Column 5 refers to allocation symbols which are explained on Schedule I.

Schedules D, E, F and G contain the allocations of Accumulated Depreciation, CIAC and related amortization, Operation and Maintenance expenses and Depreciation Expense. Once again, the allocation symbols are explained on Schedule I. Schedule G.1 is a summary of the depreciation expense by primary plant account. Schedule I is an allocation of each component of Taxes, Other Than Income Taxes.

The information and data used to develop the allocation symbols (Schedule I) 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 weighting of other allocations.

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Effluent Rate Study
Cost Allocation

Schedule A

Summary of Revenue Requirement Allocations

Line No.	Col. 1 Description	Col. 2 Test Year 1994	Col. 3 Adjustmts	Col. 4 ProForma 1994	Col. 5 Support Sched	Col. 6 Alloc Symbol	Col. 7 Effluent Reuse	Col. 8 Other
1	O & M Expense	\$ 826,047	\$ 0	\$ 826,047	F		\$ 129,848	\$ 696,199
2	Depreciation, Net	846,922	0	846,922	G		107,813	739,109
3	Taxes, Other	415,005	46,387	461,392	H		63,271	398,121
4	Income Taxes	(289,117)	726,628	437,511		I	60,420	377,091
5	Return Requirement	<u>1,244,517</u>	<u>262,722</u>	<u>1,507,239</u>	B		<u>208,150</u>	<u>1,299,089</u>
6	Revenue Requirement	<u>\$ 3,043,374</u>	<u>\$ 1,035,737</u>	<u>\$ 4,079,111</u>			<u>\$ 569,502</u>	<u>\$ 3,509,609</u>
7	Percentage						<u>13.96%</u>	<u>86.04%</u>

Effluent Cost per 1,000 Gallons:

$$\$569,502 / 654,138 \text{ thousand gals.} = \underline{\underline{\$0.87}} \text{ per 1,000 gals.}$$

SSU - MARCO ISLAND
Effluent Rate Study
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Rate Base Allocation

Line No.	Col. 1 Description	Col. 2 12/31/94 Balance	Col. 3 Adjustmts	Col. 4 ProForma Balance	Col. 5 Support Schedule	Col. 6 Allocation Symbol	Col. 7 Effluent Reuse	Col. 8 Other
1	Utility Plant in Service - Sewer	\$ 22,638,736	\$ 0	\$ 22,638,736	C		\$ 2,884,225	\$ 19,754,511
2	Construction Work in Progress	151,324	0	151,324	C		19,279	132,045
3	Accumulated Depreciation	(5,552,000)	0	(5,552,000)	D		(539,981)	(5,012,019)
4	Contributions in Aid of Constr.	(4,195,595)	0	(4,195,595)	E		(579,056)	(3,616,539)
5	Accum. Amortization of CIAC	1,645,629	0	1,645,629	E		242,222	1,403,407
6	Miscellaneous	0	0	0			0	0
7	Working Capital Allowance	103,256	0	103,256	F		16,231	87,025
8	Rate Base	<u>\$ 14,791,350</u>	<u>\$ 0</u>	<u>\$ 14,791,350</u>			<u>\$ 2,042,920</u>	<u>\$ 12,748,430</u>
9	Percentage						<u>13.81%</u>	<u>86.19%</u>

SSU – MARCO ISLAND
Effluent Rate Study
Cost Allocation

Module C

Utility Plant in Service by Primary Account

Line No.	Col. 1 Account No. and Name	Col. 2 12/31/94 Balance	Col. 3 Adjustmt	Col. 4 Adjusted Balance	Col. 5 Alloc. Symbol	Col. 6 Effluent Reuse	Col. 7 Other
1	INTANGIBLE PLANT:						
2	351.1—Organization	\$ 0	\$ 0	0	f	\$ 0	0
3	352.1—Franchises	4,944	0	4,944	f	317	4,627
4	389.1—Other Plant & Misc. Eqpmt	0	0	0	f	0	0
5	COLLECTION PLANT:						
6	353.2—Land & Land Rights	3,479	0	3,479	b	0	3,479
7	354.2—Structures & Improvements	0	0	0	b	0	0
8	360.2—Collection Sewers—Force	304,517	0	304,517	b	0	304,517
9	361.2—Collection Sewers—Gravity	2,127,290	0	2,127,290	b	0	2,127,290
10	362.2—Special Collection Struct.	0	0	0	b	0	0
11	363.2—Services to Customers	282,225	0	282,225	b	0	282,225
12	364.2—Flow Measuring Devices	109,069	0	109,069	b	0	109,069
13	365.2—Flow Measuring Install.	0	0	0	b	0	0
14	389.2—Other Plant & Misc. Eqpmt	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	1,406	0	1,406	b	0	1,406
18	370.3—Receiving Wells	132,277	0	132,277	b	0	132,277
19	371.3—Electric Pumping Eqpmt	920,280	0	920,280	a	91,000	829,280
20	389.3—Other Plant & Misc. Eqpmt	0	0	0	b	0	0
21	TREATMENT/DISPOSAL PLANT:						
22	353.4—Land & Land Rights	207,855	0	207,855	a	0	207,855
23	354.4—Structures & Improvements	3,410,512	0	3,410,512	a	606,235	2,804,277
24	380.4—Treatment/Disposal Equip.	8,962,317	0	8,962,317	a	429,213	8,533,104
25	381.4—Plant Sewers	571,960	0	571,960	a	80,998	490,962
26	382.4—Outfall Sewers	2,729,977	0	2,729,977	a	1,519,351	1,210,626
27	389.4—Other Plant & Misc. Equip	2,587,481	0	2,587,481	a	138,958	2,448,523
28	GENERAL PLANT:						
29	353.5—Land & Land Rights	7,860	0	7,860	f	504	7,356
30	354.5—Structures & Improvements	54,705	0	54,705	f	3,507	51,198
31	390.5—Office Furniture & Equip.	114,991	0	114,991	f	7,372	107,619
32	391.5—Transportation Equipment	49,769	0	49,769	f	3,191	46,578
33	392.5—Stores Equipment	540	0	540	f	35	505
34	393.5—Tools, Shop, Garage Equip.	18,605	0	18,605	f	1,193	17,412
35	394.5—Laboratory Equipment	5,281	0	5,281	f	339	4,942
36	395.5—Power Operated Equip	18,445	0	18,445	f	1,182	17,263
37	396.5—Communication Equipment	8,392	0	8,392	f	538	7,854
38	397.5—Miscellaneous Equipment	4,436	0	4,436	f	284	4,152
40	398.5—Other Tangible Plant	123	0	123	f	8	115
41	Total	\$ 22,638,736	\$ 0	\$ 22,638,736		\$ 2,884,225	\$ 19,754,511
42	Percentage					12.74%	87.26%

SSU - MARCO ISLAND
Effluent Rate Study
Cost Allocation

Schedule U

Accumulated Depreciation Allocation

Line No.	Col. 1 Account No. and Name	Col. 2 12/31/94 Balance	Col. 3 Adjustmt	Col. 4 Adjusted Balance	Col. 5 Alloc Symbol	Col. 6 Effluent Reuse	Col. 7 Other
1	INTANGIBLE PLANT:						
2	351.1-Organization	\$ 0	\$ 0	0	f	\$ 0	0
3	352.1-Franchises	41	0	41	f	2	39
4	389.1-Other Plant & Misc. Eqpmt	0	0	0	f	0	0
5	COLLECTION PLANT:						
6	353.2-Land & Land Rights	0	0	0	b	0	0
7	354.2-Structures & Improvements	0	0	0	b	0	0
8	360.2-Collection Sewers-Force	24,825	0	24,825	b	0	24,825
9	361.2-Collection Sewers-Gravity	839,105	0	839,105	b	0	839,105
10	362.2-Special Collection Struct.	0	0	0	b	0	0
11	363.2-Services to Customers	87,662	0	87,662	b	0	87,662
12	364.2-Flow Measuring Devices	109,068	0	109,068	b	0	109,068
13	365.2-Flow Measuring Install.	0	0	0	b	0	0
14	389.2-Other Plant & Misc. Eqpmt	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	58,158	0	58,158	b	0	58,158
18	370.3-Receiving Wells	64,857	0	64,857	b	0	64,857
19	371.3-Electric Pumping Eqpmt	503,340	0	503,340	a	49,772	453,568
20	389.3-Other Plant & Misc. Eqpmt	123,984	0	123,984	b	0	123,984
21	TREATMENT/DISPOSAL PLANT:						
22	353.4-Land & Land Rights	0	0	0	a	0	0
23	354.4-Structures & Improvements	493,755	0	493,755	a	87,767	405,988
24	380.4-Treatment/Disposal Equip.	2,236,644	0	2,236,644	a	107,115	2,129,529
25	381.4-Plant Sewers	147,128	0	147,128	a	20,836	126,292
26	382.4-Outfall Sewers	454,778	0	454,778	a	253,104	201,674
27	389.4-Other Plant & Misc. Equip	284,422	0	284,422	a	15,275	269,147
28	GENERAL PLANT:						
29	353.5-Land & Land Rights	0	0	0	f	0	0
30	354.5-Structures & Improvements	8,952	0	8,952	f	440	8,512
31	390.5-Office Furniture & Equip.	52,019	0	52,019	f	2,558	49,461
32	391.5-Transportation Equipment	27,603	0	27,603	f	1,358	26,245
33	392.5-Stores Equipment	156	0	156	f	8	148
34	393.5-Tools, Shop, Garage Equip.	8,782	0	8,782	f	432	8,350
35	394.5-Laboratory Equipment	2,250	0	2,250	f	111	2,139
36	395.5-Power Operated Equip	15,336	0	15,336	f	754	14,582
37	396.5-Communication Equipment	4,173	0	4,173	f	205	3,968
38	397.5-Miscellaneous Equipment	3,910	0	3,910	f	192	3,718
39	398.5-Other Tangible Plant	1,052	0	1,052	f	52	1,000
40	Total	\$ 5,552,000	\$ 0	\$ 5,552,000		\$ 539,981	\$ 5,012,019
41	Percentage					9.73%	90.27%

SSU - MARCO ISLAND
Effluent Rate Study
Cost Allocation

Schedule E

CIAC and Accumulated Amortization of CIAC Allocation

Line No.	Col. 1 Account No. and Name	Col. 2 12/31/94 Balance	Col. 3 Allocation Symbol	Col. 4 Effluent Reuse	Col. 5 Other
1	Contributions in Aid of Construction:				
2	Plant Capacity Fees	\$ 3,185,252	d	\$ 478,519	\$ 2,706,733
3	Main Extensions	252,046	b	0	252,046
4	Contributed Lines	28,810	b	0	28,810
5	Other Contributed Property	676,842	e	100,537	576,305
6	Service Installation Fees	<u>52,645</u>	b	<u>0</u>	<u>52,645</u>
7	Total CIAC	<u>\$ 4,195,595</u>		<u>\$ 579,056</u>	<u>\$ 3,616,539</u>
8	Percentage			<u>13.80%</u>	<u>86.20%</u>
8	Accum. Amortization of CIAC:				
9	Plant Capacity Fees	\$ 1,526,198	d	\$ 229,280	\$ 1,296,918
10	Main Extensions	27,621	b	0	27,621
11	Contributed Lines	1,919	b	0	1,919
12	Other Contributed Property	87,127	e	12,942	74,185
13	Service Installation Fees	<u>2,764</u>	b	<u>0</u>	<u>2,764</u>
14	Total Amortization of CIAC	<u>\$ 1,645,629</u>		<u>\$ 242,222</u>	<u>\$ 1,403,407</u>
15	Percentage			<u>14.72%</u>	<u>85.28%</u>

SSU - MARCO ISLAND
Effluent Rate Study
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Schedule E

Allocation of Operation and Maintenance Expenses							
Line	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7
No.	Acct. No. and Description	1994	Adjustmts	Adjusted Total	Alloc Symbol	Effluent Reuse	Other
1	COLLECTION EXPENSE:						
2	701-Salaries & Wages	\$ 7,855	\$ 0	\$ 7,855	b	\$ 0	\$ 7,855
3	704-Employee Benefits	2,016	0	2,016	b	0	2,016
4	715-Purchased Power	31,710	0	31,710	b	0	31,710
5	716-Fuel for Power	2,473	0	2,473	b	0	2,473
6	720-Materials & Supplies	31,401	0	31,401	b	0	31,401
7	742-Equipment Rental	136	0	136	b	0	136
8	758-Workman's Comp. Ins.	168	0	168	b	0	168
9	775-Misc. Expenses	14,245	0	14,245	b	0	14,245
10	PUMPING EXPENSE:						
11	701-Salaries & Wages	11,545	0	11,545	b	0	11,545
12	704-Employee Benefits	2,964	0	2,964	b	0	2,964
13	715-Purchased Power	8,689	0	8,689	b	0	8,689
14	720-Materials & Supplies	14,550	0	14,550	b	0	14,550
15	735-Contract Services, Other	215	0	215	b	0	215
16	742-Equipment Rental	135	0	135	b	0	135
17	758-Workman's Comp. Ins.	248	0	248	b	0	248
18	TREATMENT PLANT EXPENSE:						
19	701-Salaries & Wages	222,589	0	222,589	a	55,450	167,139
20	704-Employee Benefits	57,149	0	57,149	g	14,237	42,912
21	711-Sludge Removal	44,164	0	44,164	b	0	44,164
22	715-Purchased Power	110,066	0	110,066	a	28,000	82,066
23	718-Chemicals	10,924	0	10,924	a	7,000	3,924
24	720-Materials & Supplies	60,182	0	60,182	a	14,000	46,182
25	731-Contract Services, Engr.	6,245	0	6,245	b	0	6,245
26	735-Contract Services, Other	20,989	0	20,989	b	0	20,989
27	742-Equipment Rental	1,171	0	1,171	b	0	1,171
28	750-Transportation Exp.	9,692	0	9,692	b	0	9,692
29	758-Workman's Comp. Ins.	4,771	0	4,771	g	1,189	3,582
30	CUSTOMER BILLING:						
31	701-Salaries & Wages	21,320	0	21,320	b	0	21,320
32	704-Employee Benefits	5,034	0	5,034	b	0	5,034
33	715-Purchased Power	81	0	81	b	0	81
34	720-Materials & Supplies	1,275	0	1,275	b	0	1,275
35	741-Property Rental	185	0	185	b	0	185
36	742-Equipment Rental	4	0	4	b	0	4
37	750-Transportation Exp.	520	0	520	b	0	520
38	758-Workman's Comp. Ins.	379	0	379	b	0	379
39	770-Bad Debt Expense	1,619	0	1,619	b	0	1,619
40	775-Misc. Expenses	1,520	0	1,520	b	0	1,520
41	GENERAL & ADMINISTRATIVE:						
42	701-Salaries & Wages	51,203	0	51,203	f	4,333	46,870
43	704-Employee Benefits	12,503	0	12,503	f	1,058	11,445
44	715-Purchased Power	847	0	847	f	72	775
45	720-Materials & Supplies	2,667	0	2,667	f	226	2,441
46	732-Contract Services, Acctg.	2,215	0	2,215	f	187	2,028
47	733-Contract Services, Legal	1,756	0	1,756	f	149	1,607
48	735-Contract Services, Other	6,116	0	6,116	f	518	5,598
49	741-Property Rental	1,727	0	1,727	f	146	1,581
50	742-Equipment Rental	118	0	118	f	10	108
51	750-Transportation Exp.	644	0	644	f	56	588
52	756-Insurance, Vehicle	1,454	0	1,454	f	123	1,331
53	757-Insurance, Gen. Liability	3,326	0	3,326	f	281	3,045
54	758-Workman's Comp. Ins.	761	0	761	f	64	697
55	759-Insurance, Other	302	0	302	f	26	276
56	760-Advertising	358	0	358	f	30	328
57	766-Rate Case Exp.	13,668	0	13,668	f	1,157	12,511
58	767-Reg. Commission Exp.	1,179	0	1,179	f	100	1,079
59	775-Misc. Expenses	16,974	0	16,974	f	1,437	15,537
62	Total	\$ 826,047	\$ 0	\$ 826,047		\$ 129,848	\$ 696,199
63	Percentage					15.72%	84.28%

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Schedule G

Depreciation Expense Allocation

Line No.	Col. 1 Description	Col. 2 1994	Col. 3 Allocation Symbol	Col. 4 Effluent Reuse	Col. 5 Other
1	Intangible Plant	\$ 124	f	\$ 8	\$ 116
2	Collecting System	86,664	b	0	86,664
3	Pumping System	55,305	c	4,775	50,530
4	Treatment and Disposal	855,578	d	128,533	727,045
5	General Plant:				
6	Other Than Transportation	32,914	f	2,199	30,715
7	Transportation Equipment	8,295	f	554	7,741
8	Total Depreciation – UPIS	1,038,880	-	136,069	902,811
9	Amortization of CIAC	(191,958)	Sch. E	(28,256)	(163,702)
10	Total Annual Depreciation	<u>\$ 846,922</u>		<u>\$ 107,813</u>	<u>\$ 739,109</u>
11	Percentage			<u>12.73%</u>	<u>87.27%</u>

SSU – MARCO ISLAND
Effluent Rate Study
Cost Allocation

Schedule G.1

Depreciation Expense by Primary Account

Line No.	Col. 1 Account No. and Name	Col. 2	Col. 3	Col. 4
		UPIS Balance Adj 12/31/94	Deprec. Rate	Annual Expense
1	INTANGIBLE PLANT:			
2	351.1 – Organization	\$ 0	2.5000%	\$ 0
3	352.1 – Franchises	4,944	2.5000%	124
4	389.1 – Other Plant & Misc. Equipment	0	5.5556%	0
5	COLLECTION PLANT:			
6	353.2 – Land & Land Rights	3,479	n/a	0
7	354.2 – Structures & Improvements	0	3.1250%	0
8	360.2 – Collection Sewers – Force	304,517	3.3333%	10,150
9	361.2 – Collection Sewers – Gravity	2,127,290	2.2222%	47,273
10	362.2 – Special Collection Struct.	0	2.5000%	0
11	363.2 – Services to Customers	282,225	2.6316%	7,427
12	364.2 – Flow Measuring Devices	109,069	20.0000%	21,814
13	365.2 – Flow Measuring Install.	0	2.6316%	0
14	389.2 – Other Plant & Misc. Equipment	0	5.5556%	0
15	SYSTEM PUMPING PLANT:			
16	353.3 – Land & Land Rights	0	n/a	0
17	354.3 – Structures & Improvements	1,406	3.1250%	44
18	370.3 – Receiving Wells	132,277	3.1250%	4,134
19	371.3 – Electric Pumping Equipment	920,280	5.5556%	51,127
20	389.3 – Other Plant & Misc. Equipment	0	5.5556%	0
21	TREATMENT/DISPOSAL PLANT:			
22	353.4 – Land & Land Rights	207,855	n/a	0
23	354.4 – Structures & Improvements	3,410,512	3.1250%	106,579
24	380.4 – Treatment/Disposal Equip.	8,962,317	5.5556%	497,910
25	381.4 – Plant Sewers	571,960	2.8571%	16,341
26	382.4 – Outfall Sewers	2,729,977	3.3333%	90,998
27	389.4 – Other Plant & Misc. Equipment	2,587,481	5.5556%	143,750
28	GENERAL PLANT – SEWER:			
29	353.5 – Land & Land Rights	7,860	n/a	0
30	354.5 – Structures & Improvements	54,705	2.5000%	1,368
31	390.5 – Office Furniture & Equip.	114,991	6.6667%	7,666
32	391.5 – Transportation Equipment	49,769	16.6667%	8,295
33	392.5 – Stores Equipment	540	5.5556%	30
34	393.5 – Tools, Shop, Garage Equip.	18,605	6.2500%	1,163
35	394.5 – Laboratory Equipment	5,281	6.6667%	352
36	395.5 – Power Operated Equipment	18,445	8.3333%	1,537
37	396.5 – Communication Equipment	8,392	10.0000%	839
38	397.5 – Miscellaneous Equipment	4,436	6.6667%	296
39	398.5 – Other Tangible Plant	123	10.0000%	12
40	Allocated General Plant			19,651
41	Total	<u>\$ 22,638,736</u>		<u>\$ 1,038,880</u>
42	CIAC Amortization:			
43	Plant Capacity Fees	\$ 3,185,252	4.7926%	\$ 152,658
44	Main Extensions	252,046	3.1474%	7,933
45	Contributed Lines	28,810	3.3333%	960
46	Other Contributed Property	678,842	4.2879%	29,022
47	Service Installation Fees	52,645	2.6316%	1,385
48	Total	<u>\$ 4,195,595</u>		<u>\$ 191,958</u>

SSU – MARCO ISLAND
Effluent Rate Study
Cost Allocation

Schedule H

Allocation of Taxes, Other Than Income Tax

Line No.	Col. 1 Description	Col. 2 1994	Col. 3 Adjustmt	Col. 4 ProForma Amount	Col. 5 Allocation Symbol	Col. 6 Effluent Reuse	Col. 7 Other
1	Payroll Taxes	\$ 40,294	\$ 0	\$ 40,294	h	\$ 7,659	\$ 32,635
2	Property Taxes	237,538	0	237,538	Sch. C	30,262	207,276
3	Revenue Taxes	<u>137,173</u>	<u>46,387 (1)</u>	<u>183,560</u>	Sch. B	<u>25,350</u>	<u>158,210</u>
4	Total Taxes, Other	\$ <u>415,005</u>	\$ <u>46,387</u>	\$ <u>461,392</u>		\$ <u>63,271</u>	\$ <u>398,121</u>
5	Percentage					<u>13.71%</u>	<u>86.29%</u>

Note : (1) Revenue Tax Calculation :

Pro Forma Revenue Rqt	4,079,111
Rev Tax Rate	4.50%
Pro Forma Revenue Tax	<u>183,560</u>
1994 Revenue Tax	<u>(137,173)</u>
Adj	<u>46,387</u>

SSU – MARCO ISLAND
Effluent Rate Study
Cost Allocation

Schedule 7

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 pumping facilities to total pumping plant.	8.63%
7			
8		Total Pumping Plant	1,053,963
9		Effluent Pumping Facilities	91,000
10			
11	d	Items bearing this symbol are allocated based on the relationship of effluent T & D facilities to total treatment and disposal plant.	15.02%
12			
13		Total T & D Plant	18,470,102
14		Effluent T & D Facilities	2,774,755
15			
16	e	Items bearing this symbol are allocated based on effluent structures, pumping equipment, treatment equipment, and meters relative to total system structures, pumping equipment, treatment equipment, and meters.	14.85%
17			
18			
19		Total System	19,293,002
20		Effluent System	2,865,755
21			
22	f	Items bearing this symbol are allocated based on a 50% weighing of all other items.	
23			
24			
25	g	Treatment & Disposal benefits and comp insurance are allocated on the basis T & D labor costs.	
26			
27			
28	h	Payroll taxes are allocated on the basis of the allocation of total labor costs.	19.01%
29		Total Labor	314,512
30		Effluent Labor Costs	59,783
31			
32	i	Income taxes are calculated as follows and allocated on the basis of the Rate Base.	
33			
34		Rate of Return	10.19%
35		Less	5.48% Wgt Cost of Debt
36		Wgt Cost Equity	4.71%
37			x 14,791,350 Rate Base
38		Equity Return	696,673
39			x 162.80% Gross-Up
40		Pre-tax Equity	1,134,184
41			x 38.575% Tax Rate
42			<u>437,511</u> FIT

DOCKET 950495-WIS
EXHIBIT NO. 164
CASE NO. 96-04227

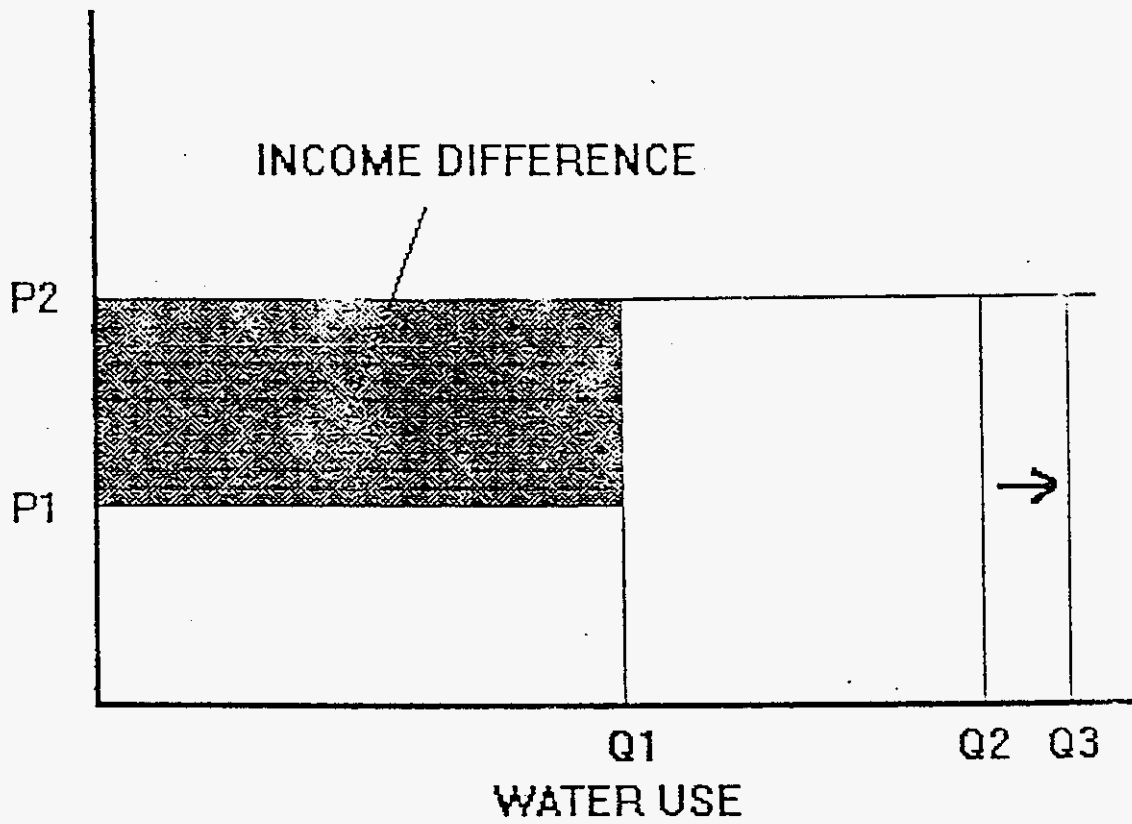
Table of Contents

Exhibit (DED-1)

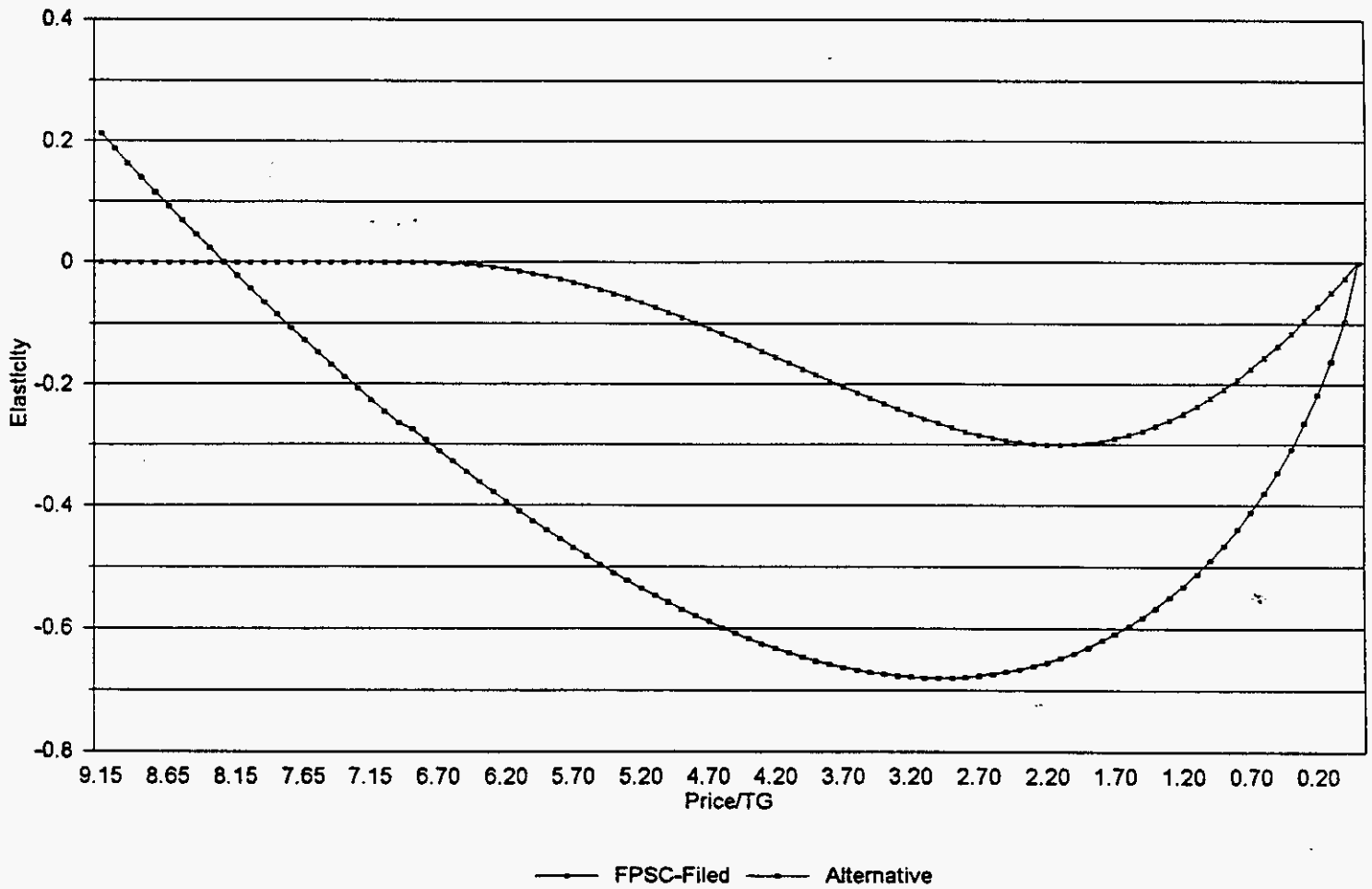
<i>Title</i>	<i>Schedule</i>
Bill Difference Illustration	1
Comparison of Price Elasticities From Alternative Specifications	2
Water Demand for Price (2)	3
Summary of Results for Commercial Customers	4
Primary Recommendation	5
Alternative Recommendation	6

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 950495 EXHIBIT NO. 164
COMPANY/
WITNESS: OPC/D. DISMUKES
DATE: 4/29/96

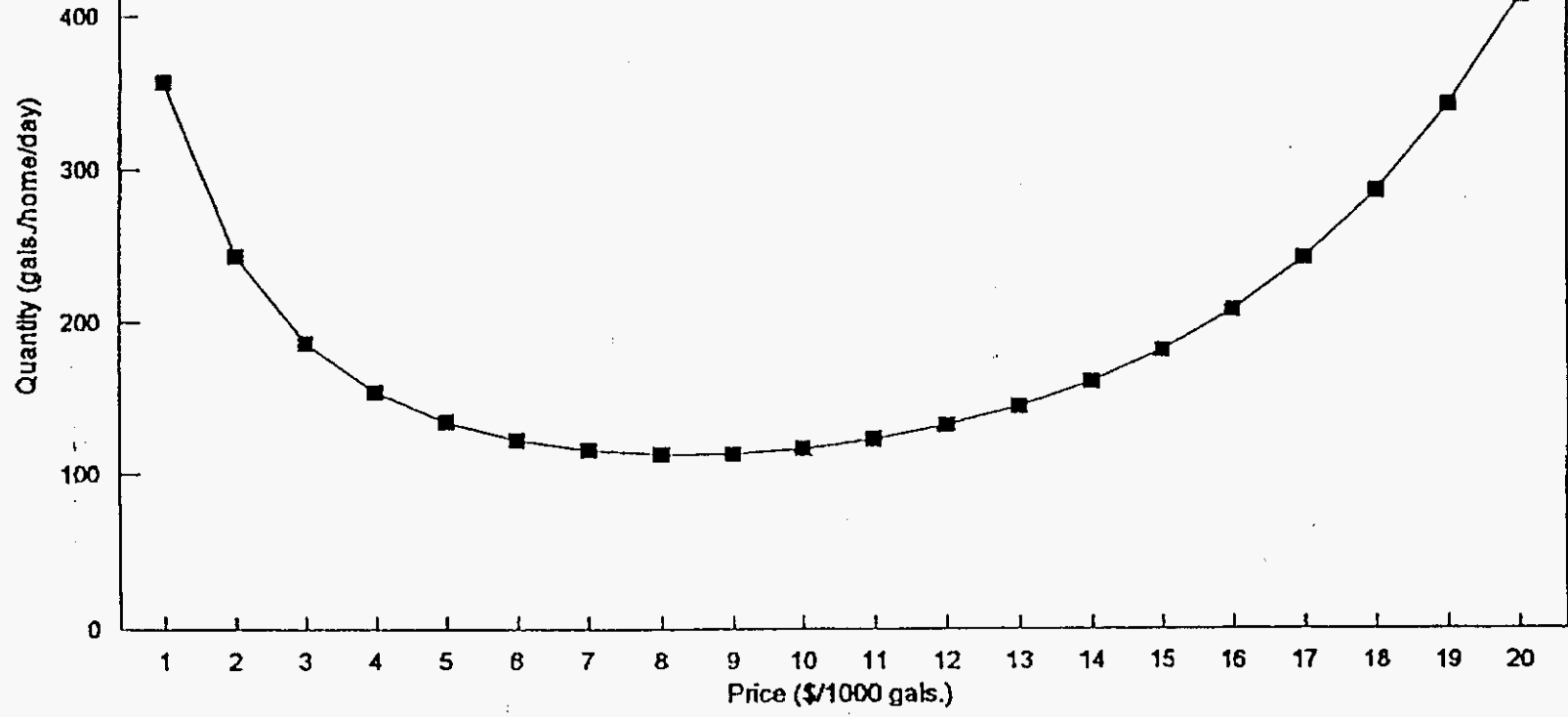
BILL DIFFERENCE ILLUSTRATION



Comparison of Price Elasticities from Alternative Specifications



Water Demand for Price(2)



Dr. Fortberger
KIR/UA
JUL 1995
5005

Docket No 950495-W/S
David E. Dismukes
Exhibit (DED-1)
Schedule 3

Summary of Results from Commercial Models

Model/Class	Percent Explained by Model	Percent Unexplained by Model	Price Elasticity
Car Wash	17.0%	83.0%	-0.70
Hopitals	4.0%	96.0%	0.00
Hotels/Motels	43.0%	57.0%	-0.48
Laundromats	6.0%	94.0%	-0.14
Nursing Homes	54.0%	46.0%	0.00
Office Buildings	29.0%	71.0%	-0.33
Restaurants	19.0%	81.0%	-0.28
Schools	32.0%	68.0%	-0.25
Universities	0.1%	99.9%	Indeterminate
Average	22.7%	77.3%	-0.2725

Primary Recommendation

<u>Revenues</u>		<i>Conventional Treatment</i>	<i>Reverse Osmosis</i>
1 Original Revenue Req. Less Direct Short Run Exp.		\$22,831,166	\$10,458,202
2 Direct Short Run Expenses		3,201,573	1,218,241
3 Total Original Revenue Requirement		26,032,739	11,676,443
4 Direct Short-Run RR Price Elastic Change		0	0
5 Adjusted Revenue Requirement	L3-L4	26,032,739	11,676,443
6			
7 BFC Revenues	0.4 *L5 5'	10,413,096	4,670,577
8 Gallonage Revenue	0.6 *L5 5'	15,619,643	7,005,866
9 Total Revenues to be Collected from Rates		26,032,739	11,676,443
10			
11 Billing Determinants			
12 Projected Monthly ERCs		93,866	16,324
13 Projected Consumption TG		8,040,449	2,183,794
14			
15 Projected Residential Consumption TG		7,074,030	1,101,846
16 Projected Multi-Family Consumption TG		81,741	282,106
17 Projected Other Consumption TG		884,678	799,843
18 Total Projected Consumption TG	L15+L16+L17	8,040,449	2,183,795
19			
20 Price Elasticity Adjustments			
21 Residential Price Elasticity Change TG		0	0
22 Multi-Family Price Elasticity Change TG		0	0
23 Other Price Elasticity Change TG		0	0
24 Total Price Elasticity Change	L21+L22+L23	0	0
25			
26 Adjusted Projected Consumption TG	L18+L24	8,040,449	2,183,795
27			
28 Residential Price Elasticity Change Percentage	L21/L15	0.0%	0.0%
29 Multi-Family Price Elasticity Change Percentage	L22/L16	0.0%	0.0%
30 Other Price Elasticity Change Percentage	L23/L17	0.0%	0.0%
31 Overall Price Elasticity Change Percentage	L24/L18	0.0%	0.0%
32			
33 Preliminary Rate Calculations			
34 BFC Rate	(L7/L12)/12	9.24	23.84
35 Gallonage Charge	L8/L26	1.94	3.21

**Alternative Recommendation
 Assuming Adoption of WNC**

Revenues		Conventional Treatment	Reverse Osmosis
1 Original Revenue Req. Less Direct Short Run Exp.		\$22,831,166	\$10,458,202
2 Direct Short Run Expenses		3,201,573	1,218,241
3 Total Original Revenue Requirement		26,032,739	11,676,443
4 Direct Short-Run RR Price Elastic Change		(71,418)	(10,297)
5 Adjusted Revenue Requirement	L3-L4	25,961,321	11,666,146
6			
7 BFC Revenues	0.4 *L5 5/	10,384,528	4,666,458
8 Gallonage Revenue	0.6 *L5 5/	15,576,793	6,999,688
9 Total Revenues to be Collected from Rates		25,961,321	11,666,146
10			
11 Billing Determinants			
12 Projected Monthly ERCs		93,866	16,324
13 Projected Consumption TG		8,040,449	2,183,794
14			
15 Projected Residential Consumption TG		7,074,030	1,101,846
16 Projected Multi-Family Consumption TG		81,741	282,106
17 Projected Other Consumption TG		884,678	799,843
18 Total Projected Consumption TG	L15+L16+L17	8,040,449	2,183,795
19			
20 Price Elasticity Adjustments			
21 Residential Price Elasticity Change TG		(241,286)	(6,863)
22 Multi-Family Price Elasticity Change TG		0	0
23 Other Price Elasticity Change TG		(16,876)	(11,136)
24 Total Price Elasticity Change	L21+L22+L23	(258,162)	(17,999)
25			
26 Adjusted Projected Consumption TG	L18+L24	7,782,287	2,165,796
27			
28 Residential Price Elasticity Change Percentage	L21/L15	-3.4%	-0.6%
29 Multi-Family Price Elasticity Change Percentage	L22/L16	0.0%	0.0%
30 Other Price Elasticity Change Percentage	L23/L17	-1.9%	-1.4%
31 Overall Price Elasticity Change Percentage	L24/L18	-3.2%	-0.8%
32			
33 Preliminary Rate Calculations			
34 BFC Rate	(L7/L12)/12	9.22	23.82
35 Gallonage Charge	L8/L26	2.00	3.23

**Alternative Recommendation
 Assuming No Adoption of WNC**

Revenues		Conventional Treatment	Reverse Osmosis
1 Original Revenue Req. Less Direct Short Run Exp.		\$22,831,166	\$10,458,202
2 Direct Short Run Expenses		3,201,573	1,218,241
3 Total Original Revenue Requirement		26,032,739	11,676,443
4 Direct Short-Run RR Price Elastic Change		(156,642)	(21,457)
5 Adjusted Revenue Requirement	L3-L4	25,876,097	11,654,986
6			
7 BFC Revenues	0.4 *L5 5/	10,350,439	4,661,994
8 Gallonage Revenue	0.6 *L5 5/	15,525,658	6,992,992
9 Total Revenues to be Collected from Rates		25,876,097	11,654,986
10			
11 Billing Determinants			
12 Projected Monthly ERCs		93,866	16,324
13 Projected Consumption TG		8,040,449	2,183,794
14			
15 Projected Residential Consumption TG		7,074,030	1,101,846
16 Projected Multi-Family Consumption TG		81,741	282,106
17 Projected Other Consumption TG		884,678	799,843
18 Total Projected Consumption TG	L15+L16+L17	8,040,449	2,183,795
19			
20 Price Elasticity Adjustments			
21 Residential Price Elasticity Change TG		(514,006)	(15,491)
22 Multi-Family Price Elasticity Change TG		0	0
23 Other Price Elasticity Change TG		(33,388)	(22,092)
24 Total Price Elasticity Change	L21+L22+L23	(547,394)	(37,583)
25			
26 Adjusted Projected Consumption TG	L18+L24	7,493,055	2,146,212
27			
28 Residential Price Elasticity Change Percentage	L21/L15	-7.3%	-1.4%
29 Multi-Family Price Elasticity Change Percentage	L22/L16	0.0%	0.0%
30 Other Price Elasticity Change Percentage	L23/L17	-3.8%	-2.8%
31 Overall Price Elasticity Change Percentage	L24/L18	-6.8%	-1.7%
32			
33 Preliminary Rate Calculations			
34 BFC Rate	(L7/L12)12	9.19	23.80
35 Gallonage Charge	L8/L26	2.07	3.26

Appendix I

David E. Dismukes

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Education

A.A., Liberal Arts, Pensacola Junior College, 1985.
B.A., History, University of West Florida, 1987.
M.S., International Affairs, Florida State University, 1988.
M.S., Economics, Florida State University, 1992.
Ph.D., Economics, Florida State University, 1995.

Master's Thesis: *Nuclear Power Project Disallowances: A Discrete Choice Model of Regulatory Decisions*

Ph.D. Dissertation: *An Empirical Examination of Environmental Externalities and the Least-Cost Selection of Electric Generation Facilities*

Field Interests: Energy Economics, Regulatory Economics, Econometrics, Economic Development, International Economics, History of Economic Thought.

Academic Appointments

Louisiana State University, Baton Rouge, Louisiana
Center for Energy Studies

1995- Assistant Professor

Florida State University, Tallahassee, Florida
Department of Economics

1995 Instructor

Professional History

Florida Public Service Commission
Division of Communications, Policy Analysis Section

1995 Planning & Research Economist

Division of Auditing & Financial Analysis, Forecasting Section

1993 Planning & Research Economist
1992-1993 Economist

Project for an Energy Efficient Florida &
Florida Solar Energy Industries Association

1994 Energy Economist

Ben Johnson Associates, Inc.

1991-1992	Research Associate
1989-1991	Senior Research Analyst
1988-1989	Research Analyst

**Research
Experience in
Energy
Economics**

Issues analyzed include: fuel price movements; electric generating plant retirements; capacity factors; interconnection transmission projects; analysis of the federal integrated resource planning (IRP) standard outlined in the Energy Policy Act of 1992. Conducted extensive research on the nuclear power industry including issues related to: prudence; cost and schedule estimates; economic impacts of NRC regulations on plant costs and schedule estimates; and intra-industry statistical comparisons. Specific nuclear projects researched include: South Texas Projects 1 & 2; Palo Verde 3; and Washington Nuclear Project 2 (WNP-2).

Analyzed issues in energy efficiency and conservation includes: economic analysis of cost effectiveness test standards for conservation programs; review of market barriers to the implementation of conservation programs; analysis of issues related to revenue neutrality and revenue decoupling; and alternative regulatory incentive structures for utility implementation of conservation programs.

Analyzed issues related to renewable energy includes: a review of solar energy use in Florida, a review of existing utility programs for solar energy; estimation of employment impacts and emission credits resulting from utility solar energy programs; review of legislative and regulatory policies for solar energy; and the estimation of numeric solar energy goals for Florida.

**Research
Experience in
Regulatory
Economics**

Analysis of electric rate design issues such as: class revenue distribution; street lighting rates; declining block rates; government rates; small commercial rates; general service rates; residential rates; space heating riders; time-of-use rates; industrial rates; and seasonal rate differentials. Analysis in telecommunications industry includes: numerous rate design issues; interLATA and intraLATA toll competition; empirical estimates of market power in telecommunications markets; measures of productivity in the telecommunications industry; price cap/alternative regulation; and telecommunications infrastructure investments. Telephone cost studies include estimation of average and marginal: toll switching costs; fiber optic transport costs; and interexchange carrier local transport cost differentials.

**Research
Experience in
Econometrics &
Forecasting**

Analyzed a variety of econometric and forecasting demand models for the electric utility industry which include: end-use models; essential usage models; short and long run demand models; and time-of-use block usage models. Telecommunications modeling includes: local access demand models; interLATA and intraLATA long distance demand models; and directory assistance demand models. Experience also includes the application of several econometric and quantitative techniques which includes: linear regression; simultaneous equations models; limited dependent variable models; and time series models. Extensive experience with SAS, SPSS, and LIMDEP statistical packages

**Expert Witness
Testimony**

Docket 920188-TL, On the Behalf of the Florida Public Service Commission Staff. Company analyzed: GTE-Florida. Issues: Telephone Demand Forecasts and Empirical Estimates of the Price Elasticity of Demand for Telecommunication Services.

Docket 920260-TL, On the Behalf of the Florida Public Service Commission Staff. Company analyzed: BellSouth Communications, Inc. Issues: Telephone Demand Forecasts and Empirical Estimates of the Price Elasticity of Demand for Telecommunication Services.

Docket 940448-EG -- 940551-EG, On the Behalf of the Legal Environmental Assistance Foundation. Companies analyzed: Florida Power & Light Company; Florida Power Corporation; Tampa Electric Company; and Gulf Power Company. Issues: Comparison of Forecasted Cost-Effective Conservation Potentials for Florida.

Publications

"Comparing the Safety and Environmental Records of Firms Operating Offshore Platforms in the Gulf of Mexico" (1996). With Allan Pulsipher, Omowumi Iledare, Dimitry Mesyanzhinov, William Daniel, and Bob Baumann. *Offshore and Arctic Operations 1996: Proceedings of the American Society of Mechanical Engineers*.

"Electric Utility Mergers and Acquisitions: A Regulator's Guide" (1996). With Kimberly H. Dismukes. *Public Utilities Fortnightly*. January 1, 1996.

Publications Under Review

"Comparing the Safety and Environmental Performance of Offshore Oil and Gas Operators" (1995). With Allan Pulsipher, Omowumi Iledare, and Dimitry Mesyanzhinov. *Journal of Environmental Economics and Management*.

"A Route-Specific Analysis of IntraLATA Toll Demand." (1995). *Studies in Economics and Finance*.

Conference Presentations

"A Cross-Sectional Model of IntraLATA MTS Demand" (1995). Southern Economic Association Annual Conference, New Orleans, Louisiana.

"Empirical Determinants of Nuclear Power Plant Disallowances" (1995). Southern Economic Association Annual Conference, New Orleans, Louisiana.

"Comparing the Safety and Environmental Performance of Offshore Oil and Gas Operators." (1995). With Allan Pulsipher, Omowumi Iledare, and Dimitry Mesyanzhinov. U.S. Minerals Management Service, 15th Annual Information Transfer Meeting, New Orleans, Louisiana.

"A Micro-Analytic Model of Petroleum Exploration and Extraction Process for Policy Analysis." (1996). With Omowumi Iledare and Allan Pulsipher. Institute of Gas Technology Annual Conference on Energy Modelling. Clearwater, Florida. (*forthcoming*)

"A Comparison of Electric Restructuring Proposals to the Experience in Other Recently Deregulated Industries." (1996). With Farhad Niami. Southern Economic Association Annual Conference, Washington, D.C. (*forthcoming*)

"Alternative Measures of Price Fluctuations and Total Factor Productivity in the Telecommunications Industry." (1996). With Farhad Niami. Southern Economic Association Annual Conference. Washington, D.C. (*forthcoming*)

Reports

Restructuring the Electric Utility Industry: Implications for Louisiana. Phase I: Background and Overview. (1996). With Allan Pulsipher and Kimberly H. Dismukes. Louisiana State University: Center for Energy Studies.

Energy Journal

American Economic Association, American Statistical Association, Econometric Society, Omicron Delta Epsilon, Southern Economic Association, and the International Association of Energy Economists.

DOCKET 950495-WS

EXHIBIT 165

CASE NO. 96-04227

EXHIBIT NO. PAK-1

Page 1 of 3

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET

NO. 950495-WS EXHIBIT NO. 165

COMPANY/

WITNESS: SSU/Katz

DATE: 4/29/96

SOUTHERN STATES UTILITIES COMPARATIVE DATA

SOUTHERN STATES RANKS 98 OUT OF 101 COMPANIES
IN THE REVENUE DOLLARS GENERATED BY EACH PAYROLL DOLLAR

[SOURCE: 1994 NAWC ECONOMIC RESEARCH PROGRAM SURVEY (FR17-A)]

RANK	COMPANY NAME	REVENUES (\$MILL)	PAYROLL (\$000)	\$ OF REVENUE PER \$ OF PAYROLL
1	SOUTHGATE	1.560	130.0	12.00
2	SUN CITY	5.624	551.3	10.20
3	SPRING VALLEY	36.930	4,099.5	9.01
4	NEW YORK AMERICAN	8.156	1,002.0	8.14
5	VIRGINIA AMERICAN	26.806	3,331.5	8.05
6	STAMFORD	12.500	1,601.7	7.80
7	SHORELANDS	7.626	977.2	7.80
8	SAN JOSE	90.496	12,283.0	7.37
9	ADELPHIA	1.037	141.7	7.32
10	FLORIDA CITIES	22.893	3,180.6	7.20
11	CAL. AMERICAN	52.949	7,487.8	7.07
12	TOMS RIVER	12.266	1,742.0	7.04
13	GEN WATER-CT	2.583	368.1	7.02
14	DOMINGUEZ	21.930	3,213.5	6.82
15	WAKEFIELD	2.118	311.2	6.81
16	SALISBURY	1.604	237.4	6.76
17	HAMPTON	3.109	462.8	6.72
18	PARADISE VALLEY	2.362	360.4	6.55
19	SUBURBAN WATER	26.429	4,085.4	6.47
20	NEW MEX. AMERICAN	5.630	887.3	6.35
21	MIDDLESEX	34.066	5,575.1	6.11
22	ELIZABETHTOWN	97.270	15,950.2	6.10
23	NEW JERSEY	168.344	27,622.1	6.09
24	CITIZENS CAL.	13.690	2,265.0	6.04
25	INTERSTATE CS	7.055	1,169.5	6.03
26	MAINE	1.125	191.7	5.87
27	SAN GABRIEL	39.474	6,750.5	5.85
28	CONN. WATER	38.131	6,534.8	5.84
29	INDIANA CITIES	17.093	2,964.0	5.77
30	BRIDGEPORT	59.085	10,391.7	5.69
31	CAL. WATER	151.717	26,976.2	5.62
32	NEW ROCHELLE	16.773	2,997.8	5.60
33	BIRMINGHAM	4.033	722.0	5.59
34	DEL. ESTE	5.151	922.2	5.59

SOUTHERN STATES UTILITIES COMPARATIVE DATA

RANK	COMPANY NAME	REVENUES (\$MILL)	PAYROLL (\$000)	\$ OF REVENUE PER \$ OF PAYROLL
35	NEW YORK WATER	19.089	3,525.2	5.42
36	WILMINGTON	12.427	2,310.0	5.38
37	INDIANA AMERICAN	35.609	6,642.4	5.36
38	AVON	1.661	315.0	5.27
39	LINCOLN	2.345	444.9	5.27
40	NEWTOWN	3.258	619.6	5.26
41	IOWA AMERICAN	15.267	2,983.7	5.12
42	CONN. AMERICAN	17.537	3,430.4	5.11
43	JAMAICA	64.881	12,732.3	5.10
44	TORRINGTON	2.568	505.2	5.08
45	RIO RANCHO	6.449	1,281.9	5.03
46	CITIZENS	2.272	453.3	5.01
47	LONG ISLAND	32.444	6,521.2	4.98
48	PENN AMERICAN	166.311	33,705.6	4.93
49	BOISE	14.052	2,857.3	4.92
50	SOUTH. NEW HAMP.	5.273	1,075.0	4.91
51	SO. CALIF.	98.154	20,036.2	4.90
52	ROTUNDA WEST	1.074	221.2	4.86
53	PLAINVILLE	1.574	325.5	4.84
54	HACKENSACK	116.282	24,067.7	4.83
55	MOUNT HOLLY	2.726	564.3	4.83
56	YORK	14.202	2,982.0	4.76
57	DAUPHIN CONC.	10.005	2,119.1	4.72
58	GEN WATER PA.	1.249	264.8	4.72
59	MOUNTAIN	6.432	1,378.0	4.67
60	MECHANICSBURG	2.887	625.3	4.62
61	PHIL--SUBURBAN	99.461	21,590.0	4.61
62	TENN. AMERICAN	27.554	5,995.5	4.60
63	MARYLAND	2.171	478.6	4.54
64	OHIO WATER	27.144	6,086.2	4.46
65	CONS. WATER	2.131	481.0	4.43
66	GARDEN STATE	9.452	2,135.1	4.43
67	PENNICHUCK	9.611	2,177.7	4.41
68	BATON ROUGE	28.871	6,619.0	4.36
69	GEN WATER PINE BLUFF	5.538	1,301.5	4.26
70	WEST LAFAYETTE	1.881	446.0	4.22
71	OHIO AMERICAN	14.856	3,542.4	4.19
72	ARTESIAN	18.534	4,454.3	4.16
73	LOUISVILLE	64.086	15,451.0	4.15
74	BLOOMSBURG	2.052	498.6	4.12
75	WEST V. AMERICAN	52.349	12,767.9	4.10

SOUTHERN STATES UTILITIES COMPARATIVE DATA

RANK	COMPANY NAME	REVENUES (\$MILL)	PAYROLL (\$000)	\$ OF REVENUE PER \$ OF PAYROLL
76	HOOSIER	2.585	632.0	4.09
77	INDIANAPOLIS	63.515	15,747.6	4.03
78	ILL. AMERICAN	56.095	13,940.6	4.02
79	NEW MEXICO UTIL.	1.712	430.2	3.98
80	CONSUMER ILL	10.741	2,762.7	3.89
81	COLLEGE	1.893	490.1	3.86
82	MASS	5.741	1,505.4	3.81
83	OHIO SUBURBAN	2.377	624.1	3.81
84	ROARING CREEK	5.260	1,420.8	3.70
85	NORTHERN ILL.	17.214	4,663.2	3.69
86	CAPITAL CITY	3.042	832.0	3.66
87	MISSOURI	12.083	3,307.2	3.65
88	BECKLEY	4.983	1,405.5	3.55
89	PENN WATER	1.370	400.5	3.42
90	SHENANGO VALLEY	6.335	1,911.2	3.31
91	PALM COAST	7.513	2,357.5	3.19
92	WANAKAH	1.607	511.6	3.14
93	PARK WATER	11.837	3,781.6	3.13
94	ST. LOUIS CTY.	66.822	21,673.1	3.08
95	TIDEWATER	1.413	465.9	3.03
96	CAMDEN & R	2.879	977.6	2.94
97	GARY HOBART	16.271	5,839.5	2.79
98	HYDRAULICS	1.050	395.2	2.66
99	SOUTHERN STATES	31.277	12,153.9	2.57
100	PENN GAS	53.363	28,506.0	1.87
101	JACKSONVILLE	5.819	3,336.1	1.74

SOURCE NATIONAL ASSOCIATION OF WATER COMPANIES 1993 FINANCIAL SUMMARY
FOR INVESTOR-OWNED WATER UTILITIES (DR17-A)

SOUTHERN STATES UTILITIES COMPARATIVE DATA

SOUTHERN STATES RANKS 88 OUT OF 101 IN PAYROLL DOLLARS PER CUSTOMER
SSU PAYROLL PER CUSTOMER IS 26% HIGHER THAN THE AVERAGE COMPANY

RANK	COMPANY NAME	# CUST (000)	PAYROLL (\$000)	PAYROLL\$/ # CUST
1	SUN CITY	27.6	551.3	20
2	SOUTHGATE	4.2	130.0	31
3	CITIZENS CAL.	55.3	2,265.0	41
4	TOMS RIVER	40.4	1,742.0	43
5	OHIO SUBURBAN	14.4	624.1	43
6	INDIANA CITIES	66.3	2,964.0	45
7	ADELPHIA	3.0	141.7	47
8	WAKEFIELD	6.5	311.2	48
9	DEL. ESTE	19.0	922.2	49
10	MOUNT HOLLY	10.7	564.3	53
11	PLAINVILLE	5.9	325.5	55
12	IOWA AMERICAN	53.8	2,983.7	55
13	BOISE	50.3	2,857.3	57
14	BATON ROUGE	110.7	6,619.0	60
15	SAN JOSE	204.8	12,283.0	60
16	SUBURBAN WATER	65.7	4,085.4	62
17	HAMPTON	7.4	462.8	63
18	TORRINGTON	7.9	505.2	64
19	LOUISVILLE	240.2	15,451.0	64
20	NEW MEX. AMERICAN	13.6	887.3	65
21	CONSUMER ILL	42.3	2,762.7	65
22	MISSOURI	50.3	3,307.2	66
23	GEN WATER PINE BLUFF	19.7	1,301.5	66
24	INTERSTATE CS	17.0	1,169.5	69
25	SPRING VALLEY	59.5	4,099.5	69
26	WEST LAFAYETTE	6.4	446.0	70
27	YORK	42.5	2,982.0	70
28	MAINE	2.7	191.7	71
29	ROTUNDA WEST	3.1	221.2	71
30	INDIANAPOLIS	219.6	15,747.6	72
31	INDIANA AMERICAN	90.6	6,642.4	73
32	ST. LOUIS CTY.	293.4	21,673.1	74
33	CAL. AMERICAN	100.9	7,487.8	74
34	VIRGINIA AMERICAN	44.8	3,331.5	74

EXHIBIT NO. PAK-2

Page 2 of 3

RANK	COMPANY NAME	# CUST (000)	PAYROLL (\$000)	PAYROLLS/ # CUST
35	CAL. WATER	361.8	26,976.2	75
36	NEWTOWN	8.3	619.6	75
37	GARDEN STATE	28.4	2,135.1	75
38	MOUNTAIN	18.2	1,378.0	76
39	LINCOLN	5.8	444.9	77
40	WILMINGTON	30.0	2,310.0	77
41	MECHANICSBURG	8.1	625.3	77
42	HOOSIER	8.1	632.0	78
43	DAUPHIN CONC.	27.0	2,119.1	78
44	NEW YORK WATER	43.7	3,525.2	81
45	GEN WATER-CT	4.5	368.1	82
46	NORTHERN ILL.	57.0	4,663.2	82
47	STAMFORD	19.4	1,601.7	83
48	CAPITAL CITY	10.0	832.0	83
49	PARADISE VALLEY	4.3	360.4	84
50	SO. CALIF.	237.0	20,036.2	85
51	BECKLEY	16.6	1,405.5	85
52	SALISBURY	2.8	237.4	85
53	ROARING CREEK	16.7	1,420.8	85
54	OHIO WATER	70.0	6,086.2	87
55	PHIL-SUBURBAN	246.0	21,590.0	88
56	BIRMINGHAM	8.2	722.0	88
57	LONG ISLAND	73.8	6,521.2	88
58	NEW YORK AMERICAN	11.3	1,002.0	89
59	PENN WATER	4.5	400.5	89
60	DOMINGUEZ	36.1	3,213.5	89
61	ARTESIAN	49.7	4,454.3	90
62	OHIO AMERICAN	39.3	3,542.4	90
63	TENN. AMERICAN	66.5	5,995.5	90
64	SAN GABRIEL	74.8	6,750.5	90
65	PENN AMERICAN	373.2	33,705.6	90
66	CITIZENS	5.0	453.3	91
67	NEW JERSEY	304.0	27,622.1	91
68	ELIZABETHTOWN	175.5	15,950.2	91
69	GEN WATER PA.	2.9	264.8	91
70	MASS	16.4	1,505.4	92
71	RIO RANCHO	13.7	1,281.9	94
72	ILL. AMERICAN	143.4	13,940.6	97
73	AVON	3.2	315.0	98
74	BRIDGEPORT	104.6	10,391.7	99
75	NEW ROCHELLE	30.1	2,997.8	100

EXHIBIT NO. PAK-2
Page 3 of 3

RANK	COMPANY NAME	# CUST (000)	PAYROLL (\$000)	PAYROLL\$/ # CUST
76	PENNICHUCK	21.6	2,177.7	101
77	TIDEWATER	4.6	465.9	101
78	WEST V. AMERICAN	125.8	12,767.9	101
79	BLOOMSBURG	4.8	498.6	104
80	WANAKAH	4.9	511.6	104
81	SHORELANDS	9.3	977.2	105
82	MIDDLESEX	52.6	5,575.1	106
83	FLORIDA CITIES	30.0	3,180.6	106
84	MARYLAND	4.5	478.6	106
85	JAMAICA	119.1	12,732.3	107
86	CONN. WATER	59.5	6,534.8	110
87	GARY HOBART	52.9	5,839.5	110
88	SOUTHERN STATES	108.3	12,153.9	112
89	SHENANGO VALLEY	17.0	1,911.2	112
90	HYDRAULICS	3.5	395.2	113
91	CONS. WATER	4.1	481.0	117
92	SOUTH. NEW HAMP.	8.2	1,075.0	131
93	CONN. AMERICAN	26.0	3,430.4	132
94	JACKSONVILLE	24.3	3,336.1	137
95	HACKENSACK	175.0	24,067.7	138
96	CAMDEN & R	7.1	977.6	138
97	PARK WATER	26.6	3,781.6	142
98	NEW MEXICO UTIL.	3.0	430.2	143
99	PENN GAS	131.1	28,506.0	217
100	PALM COAST	9.9	2,357.5	238
101	COLLEGE	1.7	490.1	288
	AVERAGE PAYROLL DOLLARS PER CUSTOMER			89
	SOUTHERN STATES PAYROLL \$ PER CUSTOMER			112
	DIFFERENCE			23
	DEVIATION FROM AVERAGE			26.2%

SOURCE: NATIONAL ASSOCIATION OF WATER COMPANIES 1993 FINANCIAL SUMMARY FOR INVESTOR-OWNED WATER UTILITIES (DR17-A)