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REPLY TO CENTRAL FLORIDA OFFICE

November 28, 2007

HAND DELIVERY

MARTIN S. FRIEDMAN, P.A.  
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CHRISTIAN W. MARCELLI, OF COUNSEL  
(LICENSED IN NEW YORK STATE)

RECEIVED-FPSC  
NOV 28 AM 10:51  
COMMISSION  
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Ann Cole, Commission Clerk  
Office of Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399

RE: Docket No.: 070183-WS; In re: Proposed adoption of Rule 25-30.4325, F.A.C., Water Treatment Plant Used and Useful Calculations  
Our File No.: 30057.147

Dear Ms. Cole:

Enclosed for filing in the above-referenced docket is an original and fifteen (15) copies of the Prefiled Direct Testimony of Frank Seidman on behalf of Utilities, Inc.

CMP \_\_\_\_\_  
COM 5  
CTR \_\_\_\_\_  
ECR 2  
GCL 2  
OPC \_\_\_\_\_  
RCA \_\_\_\_\_ MSF/tlc  
SCR \_\_\_\_\_ Enclosures

Very truly yours,



MARTIN S. FRIEDMAN  
For the Firm

SGA \_\_\_\_\_  
SEC \_\_\_\_\_  
OTH \_\_\_\_\_  
cc: Ralph Jaeger, Esquire, Office General Counsel (w/enclosures) (via hand delivery)  
Stephen Reilly, Esquire, Office of Public Counsel (w/enc.) (via hand delivery)  
Kenneth A. Hoffman, Esquire (w/enclosures)  
John P. Hoy, Chief Regulatory Officer (w/enclosures)  
Rick Durham, Regional Vice President for Operations (w/enclosures)  
Patrick C. Flynn, Regional Director (w/enclosures)  
Mr. Frank Seidman (w/enclosures)

BEFORE THE PUBLIC SERVICE COMMISSION

In re: Proposed adoption of Rule 25-30.4325, ) DOCKET NO.: 070183-WS  
F.A.C., Water Treatment Plant Used and )  
Useful Calculations. )

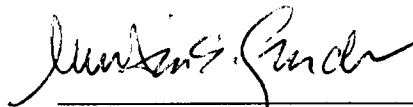
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**UTILITIES, INC.'S NOTICE OF FILING  
ITS PREFILED TESTIMONY OF FRANK SEIDMAN**

UTILITIES, INC., by and through its undersigned counsel, hereby gives notice of filing in the above-referenced docket its Prefiled Direct Testimony of Frank Seidman on Behalf of Utilities, Inc.

Respectfully submitted this 28<sup>th</sup> day of  
November, 2007, by:

Rose, Sundstrom & Bentley, LLP  
Sanlando Center  
2180 W. State Road 434  
Suite 2118  
Longwood, FL 32779  
PHONE: (407) 830-6331  
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MARTIN S. FRIEDMAN  
For the Firm

DOCUMENT NUMBER-DATE

10555 NOV 28 07

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CERTIFICATE OF SERVICE  
DOCKET NO.: 070183-WS

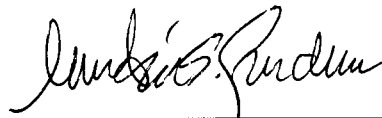
I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished  
by hand delivery this 28<sup>th</sup> day of November, 2007, to:

Stephen Reilly, Esquire  
Office of Public Counsel  
c/o The Florida Legislature  
111 W. Madison Street  
Room 812  
Tallahassee, FL 32399-1400

with copies to:

Ralph Jaeger, Esquire (via hand delivery)  
Office of General Counsel  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Kenneth Hoffman, Esquire (via U.S. Mail)  
Post Office Box 551  
Tallahassee, FL 32302



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MARTIN S. FRIEDMAN  
For the Firm

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Proposed Adoption of )  
Rule 25-30.30.4325, F.A.C., )  
Water Treatment Plant Used and Useful)

Docket No. 070183-WS

Filed: December 3, 2007

DIRECT TESTIMONY

OF

FRANK SEIDMAN

ON BEHALF OF

UTILITIES, INC.

DOCUMENT NUMBER-DATE

10555 NOV 28 8

FPSC-COMMISSION CLERK

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TESTIMONY OF FRANK SEIDMAN  
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION  
IN RE THE PROPOSED ADOPTION OF RULE 25-30.4325,  
F.A.C., WATER TREATMENT PLANT USED AND USEFUL  
CALCULATIONS  
DOCKET NO. 070183-WS

Q. Please state your name and business address.

A. My name is Frank Seidman. I am President of Management & Regulatory Consultants, Inc., consultants in the utility regulatory field. My business address is P.O. Box 13427, Tallahassee, FL 32317-3217.

Q. On whose behalf are you appearing in this proceeding?

A. I am appearing on behalf of Utilities, Inc., which owns and operates ten (10) subsidiaries in Florida to which this proposed rule will be applicable.

Q. State briefly your educational background and professional experience.

A. I hold a Bachelor of Science degree in Electrical Engineering from the University of Miami. I have

1 also completed several graduate level courses in  
2 economics at Florida State University, including  
3 public utility economics. I am a Professional  
4 Engineer, registered to practice in the State of  
5 Florida. I have over 40 years experience in the  
6 field of utility regulation and in utility  
7 management and consulting. This experience  
8 includes nine years as a staff member of the  
9 Florida Public Service Commission, two years as a  
10 senior planning engineer for a Florida telephone  
11 company, four years as Manager of Rates and  
12 Research for a water and wastewater holding  
13 company that operated in six states, including  
14 Florida, and three years as Director of Technical  
15 Affairs for a national association of industrial  
16 users of electricity. I have either supervised or  
17 prepared rate cases, rate studies, and original  
18 cost studies or testified as a witness in utility  
19 matters in Florida and six other states. I have  
20 participated and/or appeared as a witness in many  
21 of this Commission's rulemaking proceedings with  
22 regard to water, wastewater and electric rules,  
23 as well as proceedings before the Florida  
24 Division of Administrative Hearings. I have

1 attached to my testimony a summary of proceedings  
2 in which I have taken part (Exhibit FS-1 \_\_\_).  
3

4 Q. What is the purpose of your testimony?

5 A. The purpose of my testimony is to present the  
6 position of Utilities, Inc. with regard to the  
7 proposed rule and to provide information to the  
8 Commission to assist it in reaching its  
9 conclusions as to whether the rule should be  
10 adopted as proposed or should be modified.  
11

12 Q. What is the position of Utilities, Inc. with  
13 regard to the proposed rule?

14 A. Utilities, Inc. supports the rule, as proposed.  
15 Although Utilities, Inc. does not necessarily  
16 agree with every part of the proposed rule, it  
17 supports it because it represents a compromise  
18 resulting from the concerted efforts of the  
19 Commission staff and interested parties,  
20 including the Office of Public Counsel, the  
21 Department of Environmental Protection, the water  
22 management districts and the Florida Rural Water  
23 Association, which have provided input, written  
24 and verbal, in several workshops and through open  
25 correspondence. Utilities, Inc. also supports the

1 rule as proposed because it basically codifies  
2 decisions of the Commission that have been  
3 developed and solidified during the course of  
4 many evidentiary hearings occurring over many  
5 years that have been heard by many sets of  
6 commissioners.

7

8 Q. If Utilities, Inc. supports the proposed rule,  
9 why is it providing further input?

10 A. Utilities, Inc. supports the whole rule as  
11 proposed. It believes that the sum of the sub-  
12 parts provide a workable whole rule. However,  
13 changing pieces of the rule may not have the same  
14 acceptable result. It is, therefore, important  
15 that input be provided to address specific  
16 alternate proposals that it believes may change  
17 the intended direction of the rule as currently  
18 proposed. In addition, if alternative proposals  
19 are found to be acceptable, Utilities, Inc. would  
20 like the opportunity to be able to support those.

21

22 Q. Before you take up any specific concerns, would  
23 you please provide to the Commission some  
24 background on the used and useful concept which  
25 this proposed rules addresses?



1       A.    I would be glad to. The proposed rule addresses  
2            "used and useful calculations." Before valid  
3            "calculation" methods can be developed, I believe  
4            it is helpful to have some background on the  
5            origin of the term used and useful.

6            The term "used and useful" originates in  
7            regulatory law; more specifically, utility  
8            regulatory law. It is found in the regulatory  
9            statutes of many states, including Florida. But  
10           it is not necessarily found in the statutes  
11           regulating all of the utilities regulated by  
12           those states. For example, here in Florida, the  
13           term used and useful is found in the statutes  
14           regulating electric and gas utilities and water  
15           and wastewater utilities, but it is not found in  
16           the statutes regulating telecommunication  
17           utilities.

18  
19           The term "used and useful" is often modified in  
20           the law by the phrase "in the public service" as  
21           it is in Florida, or by a phrase of similar  
22           wording. And it is sometimes followed by a  
23           requirement for prudent investment. Here in  
24           Florida, prudent investment is required to be  
25           considered in the regulation of electric and gas

1 utilities. Prudent investment is not required to  
2 be considered in the regulation of water and  
3 wastewater utilities, although such consideration  
4 is not precluded.

5

6 Q. Is there a definition of used and useful in the  
7 law?

8 A. No, there is not. Interestingly, a common thread  
9 amongst the regulatory statutes in all states of  
10 which I am aware, is that used and useful is  
11 never defined. The definition has been left up to  
12 the regulatory agencies and the courts. It is as  
13 if the legislators placed the term in the law not  
14 knowing how to define it, but assuming regulators  
15 would know it when they saw it. And, as pointed  
16 out in a 1983 Interdepartmental Commission  
17 Memorandum (Exhibit FS-2 \_\_), there has been  
18 little help from the courts in interpreting what  
19 is used and useful. That memo could well have  
20 been written today. When I have read unofficial  
21 definitions of used and useful, it is usually in  
22 an economic or financial context, defining it as  
23 a concept used by regulators to determine whether  
24 an asset should be included in a utility's rate  
25 base. It is this vagueness that has resulted in

1 the calculation of used and useful being a  
2 contentious issue in water and wastewater  
3 regulation here in Florida for more than forty  
4 years and that, once again, brings us before the  
5 Commission to attempt to establish a rule to  
6 standardize the calculation of used and useful.

7  
8 Q. You indicated that we are "once again" before the  
9 Commission to consider a rule to standardize the  
10 calculation of used and useful. Would you please  
11 explain your remark?

12 A. Yes. The Commission has been attempting to  
13 standardize the calculation of used and useful  
14 for many, many years. On an in-house policy  
15 basis, staff efforts date back to the 1970's.  
16 Then in the early 1980's, the Commission staff  
17 conducted workshops to discuss standardization of  
18 approaches to calculating used and useful. These  
19 workshops did not result in the development of  
20 rules. Then, again, in the late 1980's and early  
21 1990's, workshops were again held. The efforts in  
22 this case were intense, resulting in numerous  
23 drafts of rule language and finally a formal rule  
24 proposal in Docket No. 911082-WS, Order No. PSC-  
25 93-0455-NOR-WS, issued 3/24/93. This rulemaking

1           proposal included many "cleanup" revisions to  
2           existing rules in addition to the proposal for a  
3           new used and useful rule. In the end, through  
4           Order No. 93-1663-FOF-WS, issued 11/15/93, the  
5           Commission adopted the cleanup portions of the  
6           rule proposal and withdrew the used and useful  
7           portion of rule proposal. The reason for the  
8           withdrawal, as best as I could determine, was the  
9           complexity of the proposal and the inability of  
10          the Commission to draw hard and fast conclusions  
11          from the array of testimony presented.  
12          Nevertheless, after another nine years  
13          (12/26/02), the Commission was able to approve a  
14          much simplified rule for the calculation of used  
15          and useful for wastewater treatment plants.

16  
17        **Q.    Is used and useful an engineering concept?**

18        **A.    No it is not. I say this knowing full well that**  
19           it is often thought of as being one and has even  
20           been considered to be one by this Commission. As  
21           I have previously stated, used and useful is a  
22           utility regulatory concept.

23

24        **Q.    Why do you say that used and useful is not an**  
25           engineering concept?

1       A.    I say that because, to my knowledge, used and  
2            useful is not taught in any engineering  
3            curriculum, it is not addressed in any  
4            engineering text, it does not appear in any  
5            engineering reference or manual and it is not a  
6            consideration in engineering design.  
7

8        Q.    If used and useful is not an engineering concept,  
9            should the Commission give great weight to  
10            engineering principles in developing rules for  
11            calculating used and useful?

12       A.    Most definitely. It is because used and useful is  
13            not an engineering concept that great weight must  
14            be given to engineering principles, especially  
15            design principles. Otherwise, interpretations of  
16            used and useful will be made in a vacuum, without  
17            any way to link the reality of before-the-fact  
18            water plant design considerations to after-the-  
19            fact regulatory analysis of what should be  
20            included in rate base.  
21

22       Q.    Is there precedent for this Commission to  
23            consider engineering design principles in  
24            determining how to calculate used and useful?

1       A.    Yes. As far back as 1973, the Commission  
2            engineering staff has given great weight to  
3            engineering design principles. In a 1973  
4            memorandum addressing the used and useful concept  
5            (Exhibit FS-3 \_\_\_), the then Chief Engineer of  
6            the Commission's Water and Sewer Department  
7            concluded:

8                    My main recommendation is to assure that  
9                    each system evaluated for used and useful  
10                   content be done so in a fair and equitable  
11                   manner. Full consideration should be given  
12                   to the design criteria and the  
13                   reasonableness of same. Using  
14                   considerations other than design criteria  
15                   measured against customers served and their  
16                   requirements will result in an arbitrary  
17                   decision as to what is used and useful in  
18                   the public service. (emphasis added)

19  
20                   Then, in Order No. 7684, issued 3/14/77 (Exhibit  
21                   FS-4 \_\_\_), in evaluating a Deltona Utilities rate  
22                   application, the Commission offered a definition  
23                   of the purpose of used and useful and the means  
24                   for its determination. It identified a two step  
25                   process. In the first step, the existence and

1 cost of an asset is determined. In the second  
2 step, it is determined whether the asset is  
3 really used and useful. The Commission set out  
4 three criteria in the second step. First, the  
5 asset must be reasonably necessary to furnish  
6 adequate service during the course of the prudent  
7 operation of the utility. Second, any asset  
8 required to perform a function necessary to  
9 furnish service to the public is considered used  
10 and useful. And third, good engineering design  
11 will give a growing utility sufficient capacity  
12 over and above actual demand to act as a cushion  
13 over a reasonable period of time. (emphasis  
14 added)

15  
16 So, there is adequate precedent for engineering  
17 design to be given great weight.

18  
19 Q. Is there support in the water and wastewater  
20 regulatory statute supporting the consideration  
21 of engineering design?

22 A. Yes. Chapter 367.111, Florida Statutes requires  
23 that the service provided shall be not less safe,  
24 less efficient or less sufficient than is

1 consistent with the approved engineering design  
2 of the system. (emphasis added)

3

4 COMMENTS ON SPECIFIC OPC RULE CHANGE RECOMMENDATIONS

5 Q. Thank you for providing that background regarding  
6 the origination and interpretation of used and  
7 useful. Now please direct your attention to the  
8 testimony filed on behalf of the Office of Public  
9 Counsel (OPC). Have you read the testimony filed  
10 by Mr. Woodcock on behalf of OPC?

11 A. Yes I have.

12

13 Q. Mr. Woodcock recommends amending proposed rule  
14 Section (1) (a) to include a reference in the  
15 definition of a water treatment system to exclude  
16 high service pumping, Do you have any problem  
17 with that?

18 A. No. His recommendation to amend the language in  
19 proposed rule Section (1) (a) is acceptable.

20

21 Q. Mr. Woodcock also recommends amending proposed  
22 rule section (1) (b) to separate the definitions  
23 of storage and high service pumps. Do you have a  
24 comment on that change?



1       A.    I do not feel it is necessary. For purposes of  
2            this rule, defining storage as including the  
3            associated high service pumps or defining them  
4            separately doesn't make any difference. I do not  
5            believe it interferes with evaluating the  
6            components separately, as Mr. Woodcock is  
7            proposing.

8  
9        Q.    As you have inferred, Mr. Woodcock also  
10            recommends that used and useful for storage and  
11            high service pumps be evaluated separately. Do  
12            you have a comment on that change?

13       A.    I certainly cannot argue that these system  
14            components, or for that matter any system  
15            components, should not be evaluated separately in  
16            certain circumstances. I have taken that position  
17            myself in some rate cases in which I have  
18            prepared used and useful evaluations. I can,  
19            however, argue against making separate component  
20            evaluations the rule rather than the exception as  
21            proposed by Mr. Woodcock. The rule as currently  
22            proposed by PSC Staff provides for a simple,  
23            straight forward default methodology of  
24            evaluating used and useful for two components -  
25            water treatment, as defined, and storage, as

1 defined. It then allows the opportunity for  
2 alternatives calculations, which would include a  
3 component by component evaluation, as the  
4 secondary methodology. This approach is the  
5 culmination of evaluating used and useful for  
6 hundreds of systems over many years. As I  
7 indicated previously in my testimony, the rule as  
8 proposed is a compromise. The more complicated  
9 the rule, the more difficult to reach a  
10 compromise. This rule has to be workable not only  
11 for the Class A and B utilities that file their  
12 own cases, but for the Class C utilities for  
13 which PSC Staff will be preparing the cases.  
14 Remember, we are not designing water systems, we  
15 are making a determination of what costs are  
16 recoverable through rates. The designs for the  
17 systems being evaluated for used and useful have  
18 already been approved as meeting FDEP criteria  
19 and it is not necessary to reevaluate every  
20 component. For the exceptions, the proposed rule  
21 already provides that opportunity.

22

23 Q. Mr. Woodcock next recommends amending proposed  
24 rule Section (1) (c) to separate the definitions  
25 of peak demand for water treatment systems with

1 and without storage. Do you have a comment on  
2 that change?

3 A. Yes. If all Mr. Woodcock was doing was separating  
4 the definitions, I would argue that it was  
5 acceptable, but not necessary. But, he has done  
6 more than separate the definitions; he has  
7 changed the definition of peak demand for water  
8 treatment systems with storage to eliminate the  
9 need to cover fire flow demand. I cannot agree to  
10 that change.

11

12 Q. Why not?

13 A. The ability to provide for fire protection is one  
14 of the most important functions in providing  
15 water service. FDEP, in its written comments  
16 filed in this proceeding in August, 2006,  
17 recognized the importance of the ability of a  
18 water treatment system to replenish storage on a  
19 daily basis. FDEP observed:

20 When calculating maximum day demand, a fire  
21 should not be considered an anomaly. Fires  
22 happen, and water systems often must be  
23 sized to provide fire protection. Even if a  
24 water system has sufficient fire storage,  
25 source and treatment facilities must be

1           capable of replenishing the fire storage on  
2           a daily basis so that fire storage is  
3           available on any given day. Thus maximum  
4           day demand must include fire-flow demand  
5           (fire flow rate times fire flow duration.  
6           (emphasis added)

7  
8           This Commission, in the past, has also recognized  
9           the importance of including fire flow capacity in  
10          the water treatment system in addition to storage  
11          in being able to provide for fire flow demand.  
12          In Docket No. 890277-WS, regarding Palm Coast  
13          Utility Corporation, the Commission recognized  
14          the real life situation with regard to fire. A  
15          forest fire that swept across Flagler County in  
16          1985 could have devastated the City of Palm Coast  
17          if the utility's storage fire fighting capability  
18          had not been supplemented by the capability of  
19          the treatment system in providing both fire flow  
20          demand and continuous service on an extended  
21          basis. As the Commission stated in Order No.  
22          22843 in Docket No. 890277-WS:

23                 Because we are uncomfortable speculating  
24                 about the likelihood of a fire occurring on  
25                 the day of maximum demand, we find that the

1 inclusion of fire demand of 2,000 gpm for  
2 five hours does not overstate the used and  
3 useful calculations for source of supply  
4 and treatment plant facilities.

5  
6 The ability of a water treatment system to not  
7 only replenish storage for fire flow demand, but  
8 to supplement it is of special concern today, as  
9 changes in our weather patterns have made Florida  
10 susceptible to more frequent and sustained forest  
11 fires that threaten an ever growing population.

12  
13 Based on these factors, fire flow demand should  
14 be included in evaluating used and useful at all  
15 levels of supply, treatment, storage and pumping.  
16 A Utility should not be penalized economically  
17 because it has the capacity to meet both customer  
18 demand and fire flow demand at all levels.

19  
20 Q. Mr. Woodcock has also recommended adding "if  
21 provided" to Paragraph 1(c) of the proposed rule,  
22 regarding the inclusion of fire flow demand. Do  
23 you have any comment?

24 A. My only comment is that the proposed paragraph  
25 already includes that limiting factor. The

1 proposed rule includes the language "where fire  
2 flow is provided ...". That being the case, I see  
3 no reason to change the proposed language.

4

5 Q. Next, Mr. Woodcock has recommended amending the  
6 definition of peak demand for storage in proposed  
7 rule section 1(d). Would you please comment on  
8 that recommendation?

9 A. The major change recommended by Mr. Woodcock is  
10 to define the peak demand for storage as 25% of  
11 maximum day demand plus fire flow instead of 100%  
12 of maximum day demand plus fire flow. He believes  
13 that 100% of maximum day demand is excessive. I  
14 believe that his recommendation of 25% of maximum  
15 day plus fire flow is inadequate for purposes of  
16 determining used and useful. Mr. Woodcock states  
17 that his definition mirrors the concepts embodied  
18 in FDEP design standards. I do not agree. FDEP  
19 Rule 62-555.320(19)(a) requires finished water  
20 storage to be at least 25% of maximum day demand  
21 and, as indicated, this is only for operational  
22 equalization. Mr. Woodcock's recommendation  
23 results in the minimum FDEP design standard being  
24 used as a maximum for purposes of a utility  
25 recovering its costs. I do not believe that

1           disincentives that result in water systems being  
2           designed to meet only minimum standards mirrors  
3           the concepts embodied in FDEP design standards.  
4           In my opinion, Mr. Woodcock's recommended  
5           definition also ignores the necessity for  
6           emergency storage. Emergency storage is in  
7           addition to fire storage and protects against  
8           such events as power outages, large main breaks,  
9           and unexpected shut downs or failures of the  
10          treatment plant or the water supply. The  
11          determination of the amount of emergency storage  
12          is a judgment call and design resources do not  
13          offer any estimates of the range of the amount.  
14          However, the "Recommended Standard for Water  
15          Works" does provide some guidance. That reference  
16          indicates that for a system not providing fire  
17          protection, the minimum storage capacity should  
18          be equal to average daily consumption. One could  
19          conclude that minimum storage for a system with  
20          fire flow demand, the minimum storage capacity  
21          would be at least the fire flow demand plus  
22          average daily demand. The range of maximum to  
23          average day demand ratios in the U.S. typically  
24          ranges from 1.5 to 3.5. On that basis, one could  
25          set minimum storage capacity, other than fire

1 flow at about 50% of maximum day demand, with 25%  
2 being for equalization and 25% for emergency  
3 demand. Again, this is a minimum. I believe Mr.  
4 Woodcock's recommendation, therefore, is  
5 inadequate for purposes of calculating used and  
6 useful and the proposed rule recommendation of  
7 100% of maximum day demand, though higher than  
8 the minimum requirement is not unreasonable.

9

10 Q. Mr. Woodcock has recommended a definition of high  
11 service pumping demand which he identifies as new  
12 section (1)(f). Would you please comment on that  
13 recommendation?

14 A. Yes. Mr. Woodcock's premise is that a separate  
15 evaluation of used and useful for high service  
16 pumps is necessary. Under that premise, a  
17 definition such as he proposes is also necessary.  
18 The rule as currently proposed evaluates storage  
19 and high service pumps together. As I previously  
20 indicated, I do not have a problem evaluating  
21 used and useful by components under certain  
22 conditions. Under the rule, as proposed, this is  
23 an option that is made available, but it is a  
24 secondary option. Should the Commission decide  
25 that a separate evaluation of used and useful for



1 high service pumps be a part of the rule, then  
2 Mr. Woodcock's definition should be considered.  
3 My problem with his definition is the same I have  
4 with all of his definitions that rely on the  
5 wording of FDEP Rule 62-555, FAC., and his  
6 application, in general of that rule for purposes  
7 of calculating used and useful; i.e., that a rule  
8 that sets minimum requirements based on design  
9 demands is used to set the maximum level of the  
10 costs recoverable by a utility through rates.

11

12 Q. Since your concern with Mr. Woodcock's  
13 application of Chapter 62-555, Florida  
14 Administrative Code appears to be a recurring  
15 one, would you please explain further why you are  
16 concerned with its use for analysis of methods  
17 for calculating used and useful?

18 A. The purpose of Chapter 62-555, F.A.C. is to set  
19 the permitting requirements for public water  
20 systems (see 62-550.102(5), F.A.C.). The Chapter  
21 sets out standards for how a public water system  
22 shall be designed and constructed and requires  
23 that it be designed in accordance with sound  
24 engineering practice (see 62-555.320 and  
25 555.320(1), F.A.C.). If a system is designed and

1 constructed in accordance with Chapter 62-555,  
2 F.A.C., a permit is issued. Every operating  
3 public water system that has been issued a permit  
4 by FDEP is, by definition, designed and  
5 constructed in accordance with the requirements  
6 of Chapter 62-555, F.A.C.

7  
8 Mr. Woodcock, in developing many of his proposed  
9 rule change recommendations has taken the FDEP  
10 design criteria, which were minimum criteria  
11 based on design assumptions about the demands on  
12 the system being permitted, and applied them,  
13 after the fact, to actual demands on the system.

14  
15 **Q. What is wrong with that?**

16 **A.** Nothing, if all you are doing is evaluating when  
17 and what system upgrades may be needed in the  
18 future. In fact, that is what is done in  
19 preparing an FDEP required capacity analysis  
20 report or when applying for an FDEP expansion  
21 permit. But it does not work when trying to  
22 determine whether the cost of a system designed  
23 and permitted in accordance with FDEP  
24 requirements should be recoverable.

25

1 Q. Why is that?

2 A. When a system is being designed, the engineer  
3 looks not at used and useful considerations, but  
4 rather at sound engineering practice. Using sound  
5 engineering practice, a system would not be  
6 designed minimally, but with the ability to meet  
7 historically anticipated demands at the time of  
8 the design. That design demand is what is  
9 referred to over and over again in the FDEP rule.  
10 Actual demand is not the same as design demand,  
11 nor would one necessarily expect it to be;  
12 otherwise there would be no ability built into  
13 the design to meet historically anticipated  
14 demand. When actual demand is substituted for  
15 design demand in a FDEP standard and then used to  
16 calculate used and useful, the result is almost  
17 always an inability of the utility to recover the  
18 full cost of the system it had designed in  
19 accordance with sound good engineering practice.  
20 Let me give you an example.

21  
22 The primary building block for estimating demand  
23 for a water system is per capita water  
24 consumption. Average daily water consumption in  
25 the United States and Florida is and has been for

1           some time, approximately 100 gpd per capita.  
2           Generally speaking that is the design capacity  
3           used for designing systems in Florida. It is a  
4           legitimate, accepted design amount, and a lesser  
5           amount might be subject to question in a permit  
6           application without substantiated explanation.  
7           For many of the utilities with which I have  
8           worked in Florida, the actual per capita  
9           consumption turns out to less than 100 gpd per  
10          capita. That's not a particular problem  
11          operationally, but, if the actual rather the  
12          design demand is used in a used and useful  
13          calculation, it is a certainty that the utility  
14          will not receive full recovery of the costs  
15          associated with its water system that was  
16          designed based on sound engineering practice. In  
17          other words, if a system is designed based on 100  
18          gpd per capita, but actual demand is only 80 gpd  
19          per capita, the utility will not have the  
20          opportunity to recover 20% of the cost of its  
21          soundly engineered system. This is a fact not  
22          considered in Mr. Woodcock's proposals.  
23  
24  
25

1 Q. Is there a solution?

2 A. The simplest solution would be to evaluate used  
3 and useful with due consideration to the design  
4 demands, as exemplified in the FDEP rules. In  
5 the alternative, a methodology such as presented  
6 in this proposed rule.

7  
8 For example, the inclusion of fire demand in the  
9 peak demand, for purposes of evaluating used and  
10 useful for the water treatment system, as  
11 proposed by PSC Staff, does two things. It allows  
12 the utility to recover costs it prudently  
13 incurred to meet design demand, even though  
14 actual demand may be less and it recognizes the  
15 practical benefit of of the water treatment  
16 system being able to not only replenish storage  
17 for demand, but supplement it.

18  
19 Q. Continuing on, Mr. Woodcock has recommended  
20 additional language be added to the definition of  
21 unaccounted for water which is found at section  
22 (1)(e) of the proposed rule. Would you please  
23 comment?

24 A. Yes. Mr. Woodcock is recommending that language  
25 be added that requires that any water claimed as

1           accounted for that was used for flushing, fire  
2           fighting, line breaks, etc. be fully documented.  
3           These uses are what are now identified in the  
4           MFRs as "other uses." The proposal to require  
5           that unaccounted for water be "fully documented"  
6           is vague, in that it does not indicate the level  
7           of documentation required. The Utility is already  
8           responsible for supporting any schedule submitted  
9           in a rate filing (see PSC Rule 25-30.450,  
10          F.A.C.). There is no need for additional language  
11          in this rule.

12

13        Q.    Mr. Woodcock next recommendation concerns  
14            proposed rule section (2), which addresses  
15            prudence of investment and economies of scale. Do  
16            you have any comments?

17        A.    Yes. Mr. Woodcock indicates that prudence of  
18            investment is already an issue in rate cases,  
19            separate from used and useful and therefore it is  
20            not required in this rule. In my opinion, that is  
21            not correct. As I previously pointed out, the  
22            statute authorizing the regulation of water and  
23            wastewater utilities does not address prudent  
24            investment. It does not require its consideration  
25            nor does it preclude its consideration.

1           Therefore, I believe it is proper for the  
2           Commission to make its intent known in this rule.  
3           With regard to economies of scale, Mr. Woodcock  
4           is concerned that the current proposed language  
5           only mentions economies of scale, but gives no  
6           direction or insight about how to address it. His  
7           solution is to substitute his recommended  
8           paragraph which mentions economies of scale but  
9           gives no direction or insight about how to  
10          address it. As with the consideration of prudence  
11          of investment, I believe it is proper for the  
12          Commission to make its intent known in this rule.

13

14        **Q.   Do you have any comments about Mr. Woodcock's**  
15        **recommended substitute for proposed rule section**  
16        **(2)?**

17        **A.   Yes. Mr. Woodcock's substitute language attempts**  
18        to combine the language in currently proposed  
19        rule sections (2) and (3). Proposed rule section  
20        (2), as we have discussed, requires the  
21        consideration of prudence of investment and  
22        economies of scale, in addition to the  
23        calculations of used and useful for the various  
24        system components. Proposed rule section (3)  
25        provides that separate used and useful

1           calculations shall be made for the water  
2           treatment system and storage facilities, but  
3           allows alternative calculations to be made.

4

5           By combining the language of these sections, Mr.  
6           Woodcock defines the consideration of prudence of  
7           investment and economies of scale as alternative  
8           used and useful calculations, thus limiting there  
9           consideration to only when alternative  
10          calculations are proposed. That is not the intent  
11          of the currently proposed language. The intent of  
12          the currently proposed language is to consider  
13          these factors regardless of the method of  
14          calculation.

15

16          I do, however, agree that it would be helpful to  
17          add the other factors he has listed to the  
18          current proposed rule section (3). In other  
19          words, I am recommending that the current  
20          proposed rule section (2) be adopted as is and  
21          that the following sentence be added to current  
22          proposed rule section (3): Examples of factors  
23          that are appropriate for consideration in  
24          proposing an alternative calculation include, but  
25          are not limited to service area restrictions,



1 factors involving treatment capacity, well  
2 drawdown limitations and changes in flow due to  
3 conservation or a reduction in the number of  
4 customers.

5

6 Q. Mr. Woodcock also recommends that the option to  
7 provide an alternative calculation should be made  
8 available to all parties, not just the utility.  
9 Would you please comment on that?

10 A. Yes. I do not disagree with Mr. Woodcock's  
11 intent. However, I do not believe it can be  
12 addressed in this rule, nor is there a need to.  
13 This proposed rule is a subpart of Part V - Rate  
14 Adjustment Changes of Chapter 25-30, F.A.C. It  
15 addresses the responsibilities and requirements  
16 of the utility filing for a rate adjustment. It  
17 does not address other parties. In other words,  
18 this proposed rule tells the utility what it is  
19 required to file. Other parties have every right  
20 to respond to the filing of the utility at the  
21 proper time and in the proper manner provided for  
22 in the law and in rules implementing the law.  
23 This rule is just not the right place to address  
24 this.

25

- 1 Q. Mr. Woodcock also recommends that proposed rule  
2 section (4), which addresses circumstances in  
3 which a water treatment system would be 100% used  
4 and useful is not necessary, as it is covered  
5 under the alternative calculation factors. Do you  
6 agree?
- 7 A. No. The circumstances listed under proposed rule  
8 section (4) are special circumstances which the  
9 Commission has previously addressed and found to  
10 be the basis for a finding of 100% used and  
11 useful. By setting them out separately, it  
12 eliminates the need to go through the used and  
13 useful calculations, saving both time and  
14 expense. The only change I would recommend to the  
15 proposed language would be to make applicable to  
16 storage as well as the treatment system. I  
17 believe this is consistent with its intent.  
18
- 19 Q. Mr. Woodcock recommends removing subsection (c)  
20 from proposed rule section (4), which designates  
21 a water treatment system as 100% used and useful  
22 if it only has one well. Do you agree?
- 23 A. No. Mr. Woodcock correctly states that although  
24 FDEP Rule 62-555.315, F.A.C. requires at least  
25 two wells, there are systems that do have only

1           one well and no interconnection to add security.  
2           Such cases should be rare because if FDEP picks  
3           up on this during an inspection, it will cite the  
4           utility. Mr. Woodcock's concern is that the pump  
5           on that single well could be operating at 50%  
6           capacity because the system is not built out and  
7           yet be considered 100% used and useful under the  
8           proposed rule. This may well be true on a  
9           mathematical basis because the proposed formula  
10          for calculating capacity for a system without  
11          storage is based on the peak hour demand. But,  
12          the peak hour demand is an average of the  
13          instantaneous demands occurring during that hour  
14          and with only one well and pump, those  
15          instantaneous flows, some of which may be  
16          considerably higher than the peak hour rate of  
17          flow must still be met by that single pump. So,  
18          intuitively, with a single well, one should  
19          expect the pump rating to be more than required  
20          to meet hourly demand. And, although this may be  
21          a matter of semantics, the pump would not be  
22          operating at 50% of capacity. Its output would  
23          still be at 100% of its gpm capacity even if it  
24          is not operating at 100% of its cumulative  
25          capacity over time. Again, we must focus on the

1           purpose of the used and useful evaluation. It is  
2           to determine what costs are legitimately  
3           recoverable through rates, not to simply arrive  
4           at a used and useful percentage. And it is not to  
5           give a signal to downsize a well pump in order to  
6           increase the used and useful percentage rather  
7           than to size it in accordance with sound  
8           engineering practice. In my opinion, the PSC  
9           Staff's proposal that a system with a single well  
10          should be considered 100% used and useful is  
11          reasonable and should be adopted.

12

13        **Q. Mr. Woodcock next recommends simplifying the**  
14        **definition of firm reliable capacity in proposed**  
15        **rule subsection (6). Do you agree?**

16        **A.** Yes. If the proposed additional language for rule  
17        section (3) providing examples of factors that  
18        are appropriate for consideration in proposing an  
19        alternative calculation is accepted, Mr.  
20        Woodcock's simplified language for rule section  
21        (6) is acceptable. This recommendation is limited  
22        to the opening paragraph of proposed rule section  
23        (6) and not to subsections (a) and (b).

24

1 Q. Mr. Woodcock takes issue with proposed rule  
2 section (6) (b) which sets out that the  
3 determination of firm reliable capacity for  
4 systems with storage be based on 12 hours of  
5 pumping. Would you please address this proposal?  
6 A. Selecting the period of time upon which the  
7 capacity of the water treatment systems is  
8 evaluated for purposes of calculating used and  
9 useful is one of the most important and difficult  
10 decisions to be made in developing these rules.  
11 Mr. Woodcock's summation of the factors affecting  
12 this issue well illustrates their complexity. In  
13 designing a system, all of these different  
14 factors are considered and it doesn't matter  
15 which period of time is used to express capacity,  
16 as long as the system provides adequate and  
17 sufficient service all the time. However, in  
18 adopting a rule for the purposes of calculating  
19 used and useful, the Commission is adopting a  
20 single default formula; one that best results in  
21 a determination of that portion of the cost of  
22 the system that can be recovered through rates.  
23 Mr. Woodcock recommends that pumping over a 24  
24 hour period should be the default period for  
25 expressing firm reliable capacity. PSC Staff

1 recommends that pumping over a 12 hour period  
2 should be the default period for expressing firm  
3 reliable capacity. The rules, as proposed, allow  
4 for consideration of an alternative calculation  
5 regardless of which time frame is chosen, 12  
6 hours, 24 hours or something in between.

7  
8 In making its decision, the arguments by Staff  
9 and OPC witness Woodcock should both be carefully  
10 considered. Mr. Woodcock points out that prudent  
11 and efficient design would seek to maximize the  
12 number of hours of pumping time. He also points  
13 out there are several good reasons why pumping  
14 time should be limited. On this basis he  
15 recommends that 24 hours be the default period  
16 and all of the other considerations be addressed  
17 in an alternative calculation.

18  
19 PSC staff, in testimony it has filed in recent  
20 rate cases, supports its recommendation of a 12  
21 hour time period with two observations. The first  
22 is that wells should have some down time to  
23 recharge the aquifer and it is environmentally  
24 responsible and prudent to rest a well for 12  
25 hours daily so that ground water can recharge.

1           The second observation is that 12 hours a day  
2           reflects the general usage pattern of customers  
3           (diurnal use patterns typically show most water  
4           use between 6AM and noon and 3PM to 9PM).

5  
6           For default formula purposes, I believe Staff  
7           makes a powerful argument. The argument for  
8           environmental responsibility is certainly true  
9           today and will be for the foreseeable future. It  
10          is a crucial consideration. The Staff argument  
11          regarding customer patterns has long been true.

12  
13          Again, we must look at what we are trying to  
14          accomplish. We are trying to adopt a rule that  
15          aids in determining that portions of a utility's  
16          cost that is recoverable through rates. Staff's  
17          recommendation recognizes that there are costs  
18          incurred for purposes other than delivering water  
19          and that is the cost of protecting the water  
20          supply. Mr. Woodcock's recommendation makes  
21          protecting the water supply a secondary issue to  
22          be addressed with an alternate calculation that  
23          will require additional time and expense.

24

1           Between the two choices, it is my opinion that  
2           staff's recommendation is the more responsible  
3           and prudent for a default definition.

4

5       Q.   Mr. Woodcock next addresses the definition of  
6           peak hour demand in proposed rule section (7)  
7           (a). His recommendation is that the peaking  
8           factor be set as a range of 1.5 to 2.0, rather  
9           than a firm 2.0. Do you agree?

10      A.   No. Using a range in a default formula opens the  
11         door to interpretation that is best handled under  
12         the alternate calculation provision already  
13         proposed. More importantly, the rules set out  
14         that peak hour demand is only used for systems  
15         with no storage. Systems with no storage are  
16         typically small systems for which storage is not  
17         an economic option. As Mr. Woodcock points out,  
18         the larger the system, the lower the peaking  
19         factor and the smaller the system, the higher the  
20         peaking factor. Since this definition will be  
21         used with smaller systems, 2.0 should remain the  
22         default peaking factor.

23

24      Q.   Mr. Woodcock also recommends changes in proposed  
25         rule section (7) (a) 2. and also rule section (b)



1           2. These sections address using the average of  
2           the five highest days for identifying the peak  
3           day when the single peak day has an unusual  
4           occurrence. Would you please address this issue?

5        A. The issue here is whether to use the highest five  
6           days in a 30 day period as proposed or the  
7           highest five days in the peak month as proposed  
8           by Mr. Woodcock. I am in agreement with Mr.  
9           Woodcock's reasoning. Using the highest five days  
10          in the peak month is so much easier to calculate.  
11          I agree with his recommendation.

12  
13          I do, however, have another problem not related  
14          to Mr. Woodcock's recommendation. And that is  
15          with the whole concept of using the average of  
16          the five highest days when the peak day of the  
17          year has an unusual occurrence.

18  
19        Q.    Would you please explain?

20        A.    There has been no difference of opinion between  
21           parties that the basic demand to be considered in  
22           evaluating used and useful is the single maximum  
23           day demand. My problem is the big leap from a  
24           single day to the average of five days as a  
25           proxy. Averaging mitigates maximum demand.

1 Averaging five days mitigates it more than  
2 averaging 4 or 3 or 2 days. Any mitigation gets  
3 us away from the purpose of using the single  
4 maximum day and that is to recognize that is what  
5 the system must be able to serve.

6  
7 Why do we have to average at all when the  
8 simplest solution to just move on the next  
9 highest day which has no unusual occurrence? One  
10 may counter that the next highest day may also  
11 have had an unusual occurrence. But so what?  
12 There can not have been an unusual occurrence on  
13 every day of the year. It is my opinion that it  
14 better to choose the single highest day in which  
15 there has not been an unusual occurrence and  
16 leave it at that. I am, therefore recommending -  
17 that proposed rule sections 7(a) 2. and 7(b) 2.  
18 be eliminated and that the wording in sections  
19 7(a) 1. and 7(b) 1. be changed from "The single  
20 maximum day (SMD) in the test year unless there  
21 is an unusual occurrence ..." to "The single  
22 maximum day (SMD) in the test year in which there  
23 is no unusual occurrence ..."

24

1 Q. The next recommendation by Mr. Woodcock is to  
2 eliminate proposed rule sections (7) (a) 3. and  
3 (7) (b) 3. These sections provide an alternative  
4 means of estimating the peak day when flow data  
5 is not available. Do you agree?

6 A. Yes. Not only for the reasons stated by Mr.  
7 Woodcock, but because I do not believe the  
8 proposed method of estimating is valid for all  
9 size and character of systems.

10  
11 Q. Mr. Woodcock next recommends a new section  
12 defining the demand and firm reliable capacity  
13 for high service pumps. Do you have any comment?

14 A. My only comment is that I do not disagree with  
15 his definitions. Whether they should be a part of  
16 the rule depends on whether the Commission  
17 decides to adopt Mr. Woodcock's recommendation to  
18 evaluate each component separately. My position  
19 on that matter has been previously discussed.

20  
21 Q. Mr. Woodcock's final recommendation is to remove  
22 proposed rule sections 10 and 11. Do you agree?

23 A. No, I do not agree. Both cover factors validly  
24 considered by Commission. And the Commission does

1           make used and useful adjustments to accounts  
2           other than plant.

3

4       **Q. Do you have any further comments?**

5       A. Yes. The greater portion of my testimony  
6           addresses the recommendations made by Mr.  
7           Woodcock on behalf of OPC. I have done that  
8           because I believe that OPC, being the sole  
9           protester of the proposed rule has the burden to  
10          show why the rule as proposed should not be  
11          adopted. For the reasons discussed in my  
12          testimony, I do not believe they carried the  
13          burden of showing why any significant changes to  
14          the rule should be made as they pertain to  
15          determining used and useful for the purpose of  
16          assessing what costs should be recovered through  
17          rates.

18

19          Throughout my testimony I did identify some  
20          changes in which I concur with Mr. Woodcock as  
21          well as changes of my own. I have prepared  
22          Exhibit (FS-5) \_\_\_ ) which is a mark up of the  
23          proposed rule which identifies those portions of  
24          the proposed rule for which I recommend a change  
25          using the standard add and strike coding.

1  
2 In concluding, I would like to reiterate that  
3 that I believe the rule as proposed is a good,  
4 not perfect, rule. It is acceptable with no  
5 significant changes. I would also like to ask  
6 the Commissioners, as you consider the  
7 information you have been provided by all  
8 parties, to keep in mind that the purpose of used  
9 and useful analysis is not to determine a used  
10 and useful percentage. The purpose is to  
11 determine what costs should be recovered through  
12 rates. Or, in another way, which assets are  
13 reasonably necessary to furnish adequate service  
14 and whether those assets perform a function which  
15 is a necessary step in furnishing service during  
16 the prudent operation of the utility. Determining  
17 a percentage is not the end result. It is an aid  
18 in reaching the end result. In my opinion, the  
19 changes recommended by OPC will not allow a  
20 utility to recover the cost of providing the  
21 facilities which make it possible to operate the  
22 system in a manner intended to assure customers  
23 get a continuously reliable level of service.  
24 They recognize specific capacities and demands as  
25 a base for measurement, but they do not

1           adequately recognize the operational and economic  
2           considerations of furnishing continuous and  
3           adequate service. They only recognize minimum,  
4           not adequate and sufficient requirements.

5

6       Q.    Does that conclude your testimony?

7       A.    Yes.

DOCKET NO. 070183-WS

EXHIBIT (FS-1) \_\_\_\_\_  
CONSISTING OF 17 PAGES

SUMMARY OF CASES - FRANK SEIDMAN

Revised:11/01/07

SUMMARY OF PROCEEDINGS PARTICIPATED IN

FRANK SEIDMAN

I. Participation In Specific Water And Sewer Cases

California

Case: California Cities Water co., Rate Case, 1973  
Sponsor: California Cities Water Co.  
Purpose: Supervise Rate Case preparation and present testimony re intercompany tax allocations.

Florida

Case: Florida 2nd Judicial District Court; re Contributions In Aid of Construction, 1970  
Sponsor: Court Subpoena  
Purpose: Testify re Relationship of CIAC and Rates.

Florida

Case: Docket No. I-71184-WS; GAC Utilities, Inc., of Florida, Cape Coral Division, Investigation of Main Extension Fees, 1971  
Sponsor: GAC Utilities, Inc.  
Purpose: Prepare Main Extension Fee Study and testify re Main Extension Fees.

Florida

Case: Docket No. 71581-WS; GAC Utilities Inc., Poinciana Division; Application for Certificate of Convenience and Necessity, 1971  
Sponsor: GAC Utilities, Inc.  
Purpose: Testify re Application.

Florida

Case: Sarasota County; Florida Cities Water Co., Rate Case, 1972  
Sponsor: Florida Cities Water Co.  
Purpose: Prepare Rate Case and testify re Application.

Florida

Case: Docket No. 800594-WS; Palm Coast Utility Corp., Rate Case and Certificate Filing, 1980  
Sponsor: Palm Coast Utility Corp.  
Purpose: Prepare Original Cost Study and Minimum Filing Requirements.

Florida

Case: Docket No. 810485-WS; Palm Coast Utility Corp., Rate Case, 1982  
Sponsor: Palm Coast Utility Corp.  
Purpose: Prepare Minimum Filing Requirements.

Florida

Case: Charlotte County; Fiveland Investments, Inc. Rate Case, 1982  
Sponsor: Fiveland Investments, Inc.  
Purpose: Prepare Rate Case and make presentation before Utility Board.



Florida

Case: Docket No. 820152-WS; San Carlos Utilities, Inc. Rate Case, 1982  
Sponsor: San Carlos Utilities, Inc.  
Purpose: Assist in Preparing Minimum Filing Requirements.

Florida

Case: Docket No. 820153-S; Shell Point Village Rate Case, 1982  
Sponsor: Shell Point Village  
Purpose: Prepare Rate Case and represent SPV before PSC.

Florida

Case: Docket No. 840092-WS; Palm Coast Utility Corp., Rate Case, 1983  
Sponsor: Palm Coast Utility Corp.  
Purpose: Prepare Rate Case and testimony re Application.

Florida

Case: Docket No. 840105-WS; Gulf Utility company, Rate Case, 1983  
Sponsor: Gulf Utility Company  
Purpose: Prepare Rate Case and testimony re Application.

Florida

Case: Collier County, East Naples Water Systems, Inc., Rate Case, 1984  
Sponsor: East Naples Water Systems, Inc.  
Purpose: Prepare Rate Case and present testimony re Application.

Florida

Case: Docket No. \_\_\_\_\_; East Naples Water systems, Inc., Application for  
Certificate and Certificate Extension, 1985  
Sponsor: East Naples Water Systems, Inc.  
Purpose: Prepare Case for presentation to PSC.

Florida

Case: Docket No. \_\_\_\_\_; East Naples Water Systems, Inc. Rate Case, 1985  
Sponsor: East Naples Water Systems, Inc.  
Purpose: Prepare Rate Case and testimony re Application.

Florida

Case: Docket No. 850100-WS; Du-Lay Utility Company, Inc.; Rate Case, 1984  
Sponsor: Du-Lay Utility Company, Inc.  
Purpose: Prepare rate case and present testimony re Application.

Florida

Case: Docket No. 850062-WS; Meadowbrook Utility Systems, Inc. Rate Case, 1984  
- 1988  
Sponsor: Meadowbrook Utility Systems, Inc.  
Purpose: Coordinate case and prepare testimony re Application.

Florida

Case: Docket No. 870330-WS; Seminole Utility Systems, Inc., Rate Case, 1986  
Sponsor: Seminole Utility Systems, Inc.  
Purpose: Prepare Rate Case and present testimony re Application.

Florida

Case: Docket No. 870166-WS; Palm Coast Utility Corp., Rate Case, 1986 - 1987  
Sponsor: Palm Coast Utility Corp.  
Purpose: Prepare Rate Case and present testimony re Application.

Florida

Case: Docket No. 870149-WS; Atlantis Utilities Company, Overearnings  
Investigation  
Sponsor: Atlantis Utilities Company  
Purpose: Participate in preparation of response to PSC.

Florida

Case: Undocketed (Sarasota County), Dolomite Utilities Corporation, Rate Case,  
1988 - 1989.  
Sponsor: Dolomite Utilities Corporation  
Purpose: Prepare Rate Case and present testimony re Application.

Florida

Case: Undocketed (Charlotte County), West Charlotte Utilities, Market Value  
Appraisal, 1988  
Sponsor: West Charlotte Utilities  
Purpose: Appraisal for additional financing

Florida

Case: Docket No. 880756-WS; Atlantis Utilities Company, Rate Case, 1988  
Sponsor: Atlantis Utility Company  
Purpose: Prepare Rate Case

Florida

Case: Undocketed (Charlotte County), West Charlotte Utilities, Pass-Thru  
Application, 1989  
Sponsor: West Charlotte Utilities  
Purpose: Prepare Pass-Thru Application

Florida

Case: Docket No. 891114-WS; Sailfish Point Utility Corporation, Rate Case,  
1989  
Sponsor: Sailfish Point Utility Corporation  
Purpose: Prepare Rate Case

Florida

Case: Docket No. 890554-WU; Lake Griffin Utilities Inc., Certificate  
Application, 1989  
Sponsor: Lake Griffin Utilities Inc.  
Purpose: Prepare original cost and application for initial rates and  
charges.

Florida

Case: Undocketed; 1988-1989  
Sponsor: Atlantis Utility Company  
Purpose: Market Value Appraisal and Sale Negotiations

Florida

Case: Undocketed; 1990  
Sponsor: Tangerine Woods Utilities and Englewood Utilities Co.  
Purpose: Study Re Englewood Water District Master Plan

Florida

Case: Docket No. 900329-WS; United Florida Utilities Corporation; Marion and Washington Counties  
Sponsor: Southern States Utilities; United Florida Utilities, and Deltona Utilities  
Purpose: Prepare and Present Rate Application for Marion and Washington County portion of twenty-seven county rate increase application, including substantiation of original cost. Assist with testimony and brief for entire application.

Florida

Case: Docket No. 900682-WS; Exemption Request, 1990  
Sponsor: W.P. Utilities  
Purpose: Request for Exemption from PSC Regulation

Florida

Case: Docket No. 900816-WS; Sailfish Point Utility Corporation, Rate Case, 1990  
Sponsor: Sailfish Point Utility Corporation  
Purpose: Prepare and Present Rate Case

Florida

Case: Undocketed; Sailfish Point Utility Corporation, 1991  
Sponsor: Sailfish Point Utility Corporation  
Purpose: Prepare Market Valuation

Florida

Case: Docket No. 910020-WS; Utilities Inc. of Florida (Pasco County), Rate Case, 1991  
Sponsor: Utilities Inc. of Florida  
Purpose: Prepare and Present Rebuttal Testimony on Used & Useful.

Florida

Case: Docket No. 911082-WS; Revisions to Water and Wastewater Rules, 1992-93.  
Sponsor: Florida Water Works Association  
Purpose: Prepare and present comments of Association regarding rule revisions, including ratemaking and used and useful formulae.

Florida

Case: Docket No. 920174-WU; Utilities Inc. of Florida (Lake County), Application for Amendment of Certificate and Objection to City of Clermont Ord. 273-C, establishing a Chapter 180 F.S., W&S Utility, 1992  
Sponsor: Utilities Inc. of Florida  
Purpose: Prepare and Present Testimony supporting certificate application and objecting to formation of utility that encompasses UIF certificated service areas and prevents their economic development.

Florida

Case: Docket No. 920199-WS; Southern States Utilities, Inc.  
Combined System Rate Case, 1991 & 1992

Sponsor: Southern States Utilities;

Purpose: Develop all rate base data and prepare MFRs for systems in  
Osceola, Orange, Brevard and Clay counties as part of a combined  
system rate application.

Florida

Case: Docket No. 920650-WS; Application for Certificate, 1992.

Sponsor: W.P. Utilities

Purpose: Apply for certificate, establish original cost for rate base and  
rates.

Florida

Case: Undocketed; Rolling Oaks Utility, 1992.

Sponsor: Southern States

Purpose: Prepare due diligence and valuation report.

Florida

Case: Docket No. 920834-WS; Utilities Inc. of Florida (Pasco County), Limited  
proceeding to increase rates to recover cost of purchased assets,  
1992.

Sponsor: Utilities Inc. of Florida

Purpose: Prepare Original Cost Study and design rates to recover costs.

Florida

Case: Docket No. 921293-SU; Mid-County Services, Inc. (Pinellas County),  
Application to increase rates and service availability (SAC)  
charges.

Sponsor: Mid-County Services, Inc.

Purpose: In response to protest of SACs, prepare analysis of requested  
charges and evaluate compliance with PSC rules.

Florida

Case: Docket No. 930770-WU; St. George Island Utility Company, Ltd, Rate  
Application, 1993.

Sponsor: St. George Island Utility

Purpose: Prepare all MFRs and supporting testimony

Florida

Case: Docket No. 940109-WU; St. George Island Utility Company, Ltd, Rate  
Application, 1994.

Sponsor: St. George Island Utility

Purpose: Prepare all MFRs and supporting testimony

Florida

Case: Docket No. 930570-WS; Lake Placid Utilities, Inc., Application for  
certificate transfer.

Sponsor: Lake Placid Utilities, Inc.

Purpose: Prepare original cost study.

Florida

Case: Undocketed; Sailfish Point Utility Corporation, 1994  
Sponsor: Sailfish Point Utility Corporation  
Purpose: Prepare Market Valuation

Florida

Case: 1994-5; Undocketed [THIS IS NOT A RATE APPLICATION]  
Sponsor: Miami-Dade Water and Sewer Department [Subcontractor to Milian, Swain & Associates]  
Purpose: Subcontracted to prepare billing analysis and design rates to recover five year projected cost of service.

Florida

Case: 1994-5; Undocketed Rulemaking on Used & Useful and Petition to Adopt Rules  
Sponsor: Florida Waterworks Association  
Purpose: Develop position, draft proposed rule, participate in workshops and consult re Petition to Adopt Rules regarding margin reserve and imputation of CIAC.

Florida

Case: Docket No. 951056-WS; Palm Coast Utility Corporation; Application for Increase in Rates  
Sponsor: Palm Coast Utility Corporation  
Purpose: Prepare MFRs and supporting testimony; prepare rebuttal testimony; participate in hearing and post hearing procedures.

Florida

Case: Docket No. 951593-WS; Palm Coast Utility Corporation; Application for Revision in Service Availability Charges  
Sponsor: Palm Coast Utility Corporation  
Purpose: Prepare application; prepare response to staff recommendation; participate in Commission agenda conference.

Florida

Case: Docket No. 960258-WS; Petition to adopt Rules on Margin Reserve and Imputation of CIAC  
Sponsor: Florida Waterworks Association  
Purpose: Develop position, draft proposed rule, participate in studies to support position; prepare testimony; prepare responses to testimony; participate in hearings. Testify in subsequent DOAH rule challenge.

Florida

Case: Docket No. 970076-WS; Sailfish Point Utility Corporation, Joint Application to transfer assets to Sailfish Point Service Corporation, 1997  
Sponsor: Sailfish Point Utility Corporation  
Purpose: Assist with Application

Florida

Case: Docket No. 960283-WS; Wedgefield Utilities, Inc., Application for Transfer of Certificates from Econ Utilities Corp. to Wedgefield, 1997  
Sponsor: Wedgefield Utilities, Inc.  
Purpose: Testify re Acquisition Adjustment and Policy

Florida

Case: Docket No. 960444-WU; Lake Utility Services, Inc., Application for Rate Increase and for increase in Service Availability Charges, 1997  
Sponsor: Lake Utility Services, Inc.  
Purpose: File Testimony re Used & Useful and Future Connections  
for SAC.

Florida

Case: Undocketed - Challenge at DOAH of PSC Rule 25-30.431, 1997-98  
Sponsor: Florida Waterworks Association  
Purpose: Assist with strategy and discovery; appear as expert witness re Regulation and policy issues.

Florida

Case: Undocketed - Market value appraisal, 1997,8 & 2000  
Sponsor: Water Management Services, Inc.  
Purpose: Prepare market value appraisal and update for re-financing.

Florida

Case: Docket No. 980483-WU; Lake Utility Services, Inc., Investigation re overcollection of AFPI, 1998  
Sponsor: Lake Utility Services, Inc.  
Purpose: Participate in preparation of testimony.

Florida

Case: Docket No. 971220-WS; Cypress Lakes Utilities, Inc., Application for certificate transfer, 1999  
Sponsor: Cypress Lakes Utilities, Inc.  
Purpose: Prepare testimony re acquisition adjustment.

Florida

Case: Docket No. 971065-SU; Mid-County Services, Inc., Application for increase in rates, 1999  
Sponsor: Mid-County Services, Inc.  
Purpose: Prepare testimony re used and useful, margin reserve and imputation of CIAC.

Florida

Case: Undocketed; PSC Annual Reports, 1999  
Sponsor: AquaSource, Inc.  
Purpose: Prepare annual reports for newly acquired multi-system Crystal River Utilities, Inc.

Florida

Case: Undocketed; Market Valuation, 1999  
Sponsor: Northern Trust Bank of Naples  
Purpose: Prepare market valuation for defaulted utility, Bonita Country Club Utilities, Inc.

Florida

Case: Docket No. 990975-SU; Application for Certificate Transfer, 1999,2000  
Sponsor: Realnor Hallandale, Inc..  
Purpose: Participate in preparation of application to transfer Certificate from Bonita Country Club Utilities, Inc., provide consulting re utility operations, prepare PSC annual reports.

Florida

Case: Docket No. 000154-SU; Proposed Rule 25-30.432 re used and useful, 2000  
Sponsor: Florida Water Works Association  
Purpose: Represent FWWA at PSC Staff workshop; prepare presentation.

Florida

Case: Undocketed; Water and wastewater rates and charges analysis, 2000  
Sponsor: North Miami Beach, City of  
Purpose: Through Milian Swain and Associates, Inc. prepare analysis and recommendation for all charges.

Florida

Case: Docket No. 991437-WU; Application for increase in water rates, 1997-2001  
Sponsor: Wedgefield Utilities, Inc.  
Purpose: Prepare testimony re used and useful and acquisition adjustment; Provide consulting re entire case and issues.

Florida

Case: Docket No. 000694-WU; Application for limited proceeding for increase in rate to recover cost of replacing supply mains on new bridge, 2000  
Sponsor: Water Management Services, Inc.  
Purpose: Prepare schedules supporting increase; participate in preparation of State Revolving Fund loan application.

Florida

Case: Docket No. 990696-WS; Application for original certificate in Duval and St. Johns counties, 2000-01  
Sponsor: Nocatee Utility Corp.  
Purpose: Through Milian Swain and Associates, Inc. provide analysis of Intervenor studies, assist with case analysis, preparation, discovery and hearings.

Florida

Case: Docket No. 001502-WS; Proposed Rule 25-30.0371, Acquisition Adjustments, 2001  
Sponsor: Utilities, Inc.  
Purpose: Represent UI and present position at PSC workshop.

Florida

Case: Docket No. 001820-SU; Application for certificate transfer, 2001  
Sponsor: Utilities, Inc. of Eagle Ridge  
Purpose: Prepare original cost study of newly acquired Cross Creek system.

Florida

Case: Undocketed; Application for original rates and charges and tariffs in  
St. Johns County, 2000-01  
Sponsor: St. Joe Utility Co.  
Purpose: Prepare supporting schedules for rates and charges.

Florida

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Case: Undocketed; PSC Annual Reports, 2001  
Sponsor: Harbor Hills Utilities, Inc.  
Purpose: Prepare annual reports and reconcile records in accordance with  
PSC staff requests.

Florida

Case: Undocketed; Prepare Cost of Service Study, 2002.  
Sponsor: CWS - Palm Valley  
Purpose: Prepare cost study to support mobile home park conversion from to  
direct utility billing from rent inclusion.

Florida

Case: Undocketed; Application for original franchise certificate in Flagler  
County, 2002  
Sponsor: MHC, Inc. - Bulow Village  
Purpose: Prepare application and supporting documents - application put on  
hold.

Florida

Case: Docket No. 020006-WS; Reestablishment of Authorized Rate of Return for  
Water and Wastewater Utilities, 2002  
Sponsor: Florida Water Services Corp.  
Purpose: Prepare expert testimony on effect of rule change proposal.

Florida

Case: Docket No. 020071-WS; Application for increase in rates and charges,  
2002  
Sponsor: Utilities Inc. of Florida  
Purpose: Prepare Used & Useful analysis and MFR engineering schedules for  
six county rate application.

Florida

Case: Docket No. 020407-WS; Application for increase in rates and charges,  
2002  
Sponsor: Cypress Lakes Utilities, Inc.  
Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Docket No. 020409-SU; Application for increase in rates and charges,  
2002  
Sponsor: Utilities, Inc. of Sandalhaven  
Purpose: Prepare complete MFR supporting rate increase.



Florida

Case: Docket No. 020408-SU; Application for increase in rates and charges, 2002

Sponsor: Alafaya Utilities, Inc.

Purpose: Prepare Used & Useful analysis, MFR engineering schedules and original cost study for purchased assets.

Florida

Case: Docket No. 030443-WS; Application for increase in rates and charges, 2003

Sponsor: Labrador Utilities, Inc.

~~Purpose: Prepare Used & Useful analysis and MFR engineering schedules.~~

Florida

Case: Docket No. 030444-WS; Application for increase in rates and charges, 2003

Sponsor: Bayside Utility Services, Inc.

Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Docket No. 030445-SU; Application for increase in rates and charges, 2003

Sponsor: Utilities, Inc. of Eagle Ridge

Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Docket No. 030446-SU; Application for increase in rates and charges, 2003

Sponsor: Mid-County Utility Services, Inc.

Purpose: Prepare complete MFR supporting rate increase.

Florida

Case: Undocketed - Hillsborough County; Application for increase in rates and charges, 2003

Sponsor: East Lake Water Services, Inc.

Purpose: Prepare Used & Useful Analysis and MFR engineering schedules.

Florida

Case: Docket No. 040247-WS; Application for original water and wastewater certificates, rates and charges and tariffs in Franklin County, 2004

Sponsor: St. James Island Utility Company.

Purpose: Prepare application, tariffs and supporting schedules for rates and charges.

Florida

Case: Docket No. 040358-SU; Application for original wastewater certificate, rates and charges and tariffs in Bay County, 2004

Sponsor: Crooked Creek Utility Company.

Purpose: Prepare application, tariffs and supporting schedules for rates and charges.

Florida

Case: Undocketed - Sarasota County; Application for increase in rates and charges, 2004  
Sponsor: Siesta Key Utilities Authority.  
Purpose: Prepare application and supporting schedules.

Florida

Case: Docket No. 040450-WS; Application for increase in rates and charges, 2004  
Sponsor: Indiantown Co., Inc.  
Purpose: Prepare Used & Useful Analysis and MFR engineering schedules.

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Florida

Case: Undocketed - Certificate Application, 2005 (never filed)  
Sponsor: MHC, Inc.  
Purpose: Prepare application and supporting rates and charges.

Florida

Case: Docket No. 050281-WS; Application for increase in rates and charges, 2005  
Sponsor: plantation Bay Utility Co.  
Purpose: Prepare Used & Useful Analysis and MFR engineering schedules.

Florida

Case: Docket No. 050587-WS; Application for increase in rates and charges, 2005  
Sponsor: MSM Utilities  
Purpose: Assist w/SARC; prepare annual report.

Florida

Case: Docket No. 980876-WS; Application for certificate (update), 2005  
Sponsor: Ocala Springs Utility, Inc.  
Purpose: Prepare updated analysis.

Florida

Case: Undocketed (Collier County) Application for change in meter installation charges, 2006  
Sponsor: Orange Tree Utility Co.  
Purpose: Prepare application.

Florida

Case: Docket No. 060246-WS; Application for increase in rates and charges, 2006  
Sponsor: Gold Coast Utility Corp.  
Purpose: Prepare Used & Useful Analysis and MFR engineering schedules.

Florida

Case: Docket No. 060256-WS; Application for increase in rates and charges, 2006  
Sponsor: Alafaya Utilities Inc.  
Purpose: Prepare Used & Useful Analysis and MFR engineering schedules.

Florida

Case: Docket No. 060257-WS; Application for increase in rates and charges,  
2004

Sponsor: Cypress Lakes Utilities, Inc.

Purpose: Prepare Used & Useful Analysis and MFR engineering schedules.

Florida

Case: Docket No. 060260-WS; Application for increase in rates and charges,  
2006

Sponsor: Lake Placid Utilities, Inc.

Purpose: Prepare Used & Useful Analysis and MFR engineering schedules.

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Florida

Case: Docket No. 060254-SU; Application for increase in rates and charges,  
2006

Sponsor: Mid-County Services, Inc.

Purpose: Prepare Used & Useful Analysis and MFR engineering schedules.

Florida

Case: Docket No. 060255-WS; Application for increase in rates and charges,  
2006

Sponsor: Tierra Verde Utilities, Inc.

Purpose: Prepare Used & Useful Analysis and MFR engineering schedules.

Florida

Case: Docket No. 060253-WS; Application for increase in rates and charges,  
2006 (six county system)

Sponsor: Utilities, Inc. Of Florida

Purpose: Prepare Used & Useful Analysis and MFR engineering schedules.

Florida

Case: Docket No. 060261-WS; Application for increase in rates and charges,  
2006

Sponsor: Utilities, Inc. of Pennbrooke

Purpose: Prepare Used & Useful Analysis and MFR engineering schedules.

Florida

Case: Docket No. 060285-WS; Application for increase in rates and charges,  
2006

Sponsor: Utilities, Inc. of Sandalhaven

Purpose: Prepare Used & Useful analysis and Projected TY MFR.

Michigan

Case: Northern Michigan Water; Rate Case, 1972

Sponsor: Northern Michigan Water Co.

Purpose: Prepare Rate Case and present testimony re Appropriate Rate of  
Return.

North Carolina

Case: Carolina Water Service, Inc. of North Carolina; Rate Case, 1992.

Sponsor: Carolina Water Service, Inc. of North Carolina

Purpose: Prepare and present rebuttal testimony regarding the concept of  
used and useful for a regulated utility.

II. Participation In Specific Electric Cases

Alabama

Case: Docket No. 18117; Alabama Power co., Rate Case, 1981  
Sponsor: U.S. Steel Co.  
Purpose: Analyze impact of Rate Proposals; Critique APCO Filing; Evaluate Cost Allocation Methodology; Recommend Position.

Alabama

Case: Remand of Docket No. 18117; Alabama Power Co., Rate Case, 1982  
Sponsor: U.S. Steel Co.  
Purpose: Analyze impact of Rate Proposals; Critique APCO Filing; Evaluate Cost Allocation Methodology; Recommend Position.

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Arkansas

Case: Docket No. U-2972; Arkansas Power & Light Co., 1979  
Sponsor: Associated Industries of Arkansas, Inc.  
Purpose: Prepare and present Rebuttal testimony regarding Industrial Response to Peak Load Pricing.

California

Case; Los Angeles Dept. of Water and Power; PURPA Hearings, 1979  
Sponsor: Anheuser Busch et al.  
Purpose: Prepare and present Rebuttal testimony re Rate Design and Marginal Cost Pricing.

Delaware

Case: Docket No. 82-83, Delmarva Power & Light co., Rate Case, 1983  
Sponsor: Diamond Shamrock et al.  
Purpose: Prepare and present Rebuttal testimony re Cost of Service and Rate Design.

Florida

Case: Docket No. 74680-CI; General Investigation of the Fuel Adjustment Clause, 1974  
Sponsor: Florida Public Service Commission  
Purpose: Prepare and present testimony re Power Plant Operating Efficiency.

Florida

Case: Docket No. 74576-EU; General Investigation of the Capital Facilities Charge for Electric Utilities, 1975  
Sponsor: Florida Public Service Commission  
Purpose: Prepare and present testimony re Method of Developing a Capital Facilities Charge.

Florida

Case: Department of Environmental Regulation, Applications for Site Certification; 1974 - 1977  
Sponsor: Florida Public Service Commission  
Purpose: Prepare Determination of Need Analysis and testify as required re PSC Position on:  
1. Florida Power & Light Co. - Palatka Plant,  
2. Florida Power & Light Co. - St. Lucie Nuclear Plant  
3. City of Tallahassee - Hopkins Plant

4. Lake Worth Utilities Authority - Combined Cycle Plant

Florida

Case: Docket Nos. 790571-EU, 790859-EU and 780973-EU; Relating to the PURPA Rate Design Standards, 1979, 1980  
Sponsor: Florida Industrial Users Group  
Purpose: Prepare and present testimony re Economies of Scale and Industrial Response to Peak Load Pricing.

Florida

Case: Docket No. 800119-EU, Florida Power Corp., Rate Case, 1980  
Sponsor: Stauffer Chemical Co.  
~~Purpose: Analyze Impact of Proposed Change in Interruptible Rate;~~  
participate in contract renegotiations; develop position for Rate Case.

Florida

Case: Docket Nos. 820406-EU, 830377-EU; Cogeneration Rule-making and Implementation Proceedings, 1982-1984  
Sponsor: IMC et al.  
Purpose: Prepare and present testimony re Proposed Cogeneration Rules and their Implementation.

Florida

Case: Docket No. 820460-EU; Determination of need for Cogeneration Facility, 1982  
Sponsor: International Minerals & Chemical (IMC)  
Purpose: Prepare and present testimony re Basis of Determining Need for Cogeneration.

Florida

Case: Docket No. 840399-EU; Provision of Utility Transmission Service To Qualifying Facilities At Multiple Locations, 1984  
Sponsor: CF Industries, et al  
Purpose: Prepare and present testimony re Rule Change

Florida

Case: Docket No. 850004-EU; Annual Planning Hearing on Load Forecasts, Generation Expansion Plans and Cogeneration Prices, 1985  
Sponsor: Industrial Cogenerators  
Purpose: Prepare testimony re Cogeneration Pricing.

Florida

Case: Docket No. 860004-EU; Annual Planning Hearing on Load Forecasts, Generation Expansion Plans and Cogeneration Prices, 1986  
Sponsor: Industrial Cogenerators  
Purpose: Prepare and present testimony re Cogeneration Pricing.

Florida

Case: Docket No. 860001-EI-E; Florida Power & Light Company Avoided O&M  
Payments to Qualifying Facilities, 1986  
Sponsor: Florida Crushed Stone  
Purpose: Prepare and present testimony on Variable O&M Payment.

Florida

Case: Docket No. 870184-EU; Retail Sale of Electricity by Private Suppliers,  
1987

~~Sponsor: Industrial Cogenerators~~  
Purpose: Prepare comments on PSC Retail Sales issues.

Florida

Case: Docket No. 880004-EU, 890004-EU; Planning Hearings on Load Forecast,  
Cogeneration Expansion Plans and Cogeneration Prices, 1988, 1989.  
Sponsor: Industrial Cogenerators  
Purpose: Prepare and present testimony re Cogeneration Pricing.

Florida

Case: Docket No. 881005-EG; Amendment of Cogeneration Rules 25-17.091 for  
Solid Waste Facilities, 1988.  
Sponsor: City of Tampa  
Purpose: Prepare and present testimony re Cogeneration pricing for Solid  
Waste Facilities.

Florida

Case: Docket Nos. 890973 and 890974-EI; FPL Petition for Need, Lauderdale and  
Martin Plants  
Sponsor: Broward County  
Purpose: Represent the interests of Broward County

Florida

Case: Docket No. 891049-EU; Revision of Cogeneration Rules  
Sponsor: Florida Industrial Cogenerators Association  
Purpose: Prepare and present comments re revisions to cogeneration rules

Florida

Case: Docket No. 891324-EU; Revision of Conservation Cost Effectiveness Rules  
Sponsor: Florida Industrial Cogenerators Association  
Purpose: Prepare and present comments re rule revisions

Florida

Case: Docket No. 910004-EU; Planning Hearings on Load Forecast, Cogeneration  
Expansion Plans and Cogeneration Prices, 1990.  
Sponsor: Florida Industrial Cogenerators Association  
Purpose: Prepare and present testimony on cogeneration pricing

Florida

Case: Docket No. 910603-EQ; Implementation of Cogeneration Rules regarding  
negotiated contracts  
Sponsor: Florida Industrial Cogenerators Association  
Purpose: Prepare and present testimony re rule implementation.

Florida

Case: Docket No. 001574-EQ; Proposed Amendments to Rule 25-17.0832, Firm Capacity and Energy Contracts, 2002  
Sponsor: City of Tampa and Solid Waste Authority of Palm Beach County  
Purpose: Prepare expert testimony on effect of rule change proposal.

Florida

Case: Undocketed (Jefferson County) Financing to upgrade Wasteto-Energy Generating Plant, 2006  
~~Sponsor: K&M Energy, LLC~~  
Purpose: Prepare Feasibility Report

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Florida

Case: Docket No. 060555-EI; Proposed Amendments to Rule 25-17.0832, Firm Capacity and Energy Contracts, 2006  
Sponsor: City of Tampa and Solid Waste Authority of Palm Beach County, et al  
Purpose: Prepare expert testimony on effect of rule change proposal and alternative rule.

Texas

Case: Docket No. 1776; Hearing on PURPA Rate Design Standards, May 1978  
Sponsor: ELCON at request of Texas PUC  
Purpose: Co-sponsor testimony re Impact of Alternative Rate Structures on Utilities and Their Customer Classes.

Texas

Case: Docket No. 3955; Houston Lighting & Power, Rate Case, 1981  
Sponsor: United States Steel Co.  
Purpose: Evaluate Rate Application and file testimony re Customer Load Characteristics and Impact of Tariff Provisions (Case settled).

Texas

Case: Docket No. 4540; Houston Lighting & Power, Rate Case, 1982  
Sponsor: United States Steel Co.  
Purpose: Analyze Impact of Rate Proposals; Critique HL&P Filing; evaluate Cost Allocation Methodology; Recommend Position.

Utah

Case: Docket No. 81-035-12; Utah Power & Light co., Request For Vintage pricing  
Sponsor: United States Steel Co.  
Purpose: Analyze impact of Proposal; Evaluate concept; Rec. position.

Utah

Case: Docket No. 82-035-13; UP&L, Rate Case  
Sponsor: United States Steel Co.  
Purpose: Analyze Impact of Rate Proposals; Critique UP&L Filing, Evaluate Cost Allocation Methodology; Recommend Position.

III. Participation In Specific Gas Cases

Florida

Case: Central Florida Gas Corp., Rate Case, 1971  
Sponsor: Central Florida Gas Corp.  
Purpose: Prepare Original Cost Study, Rate Case and testimony re Application.

Florida

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Case: Arbitration Panel, Central Florida Gas Corp., Condemnation Proceeding by the City of Bartow  
Sponsor: Central Florida Gas Corp.  
Purpose: Prepare and present testimony re Economic Losses Due to Condemnation.

IV. Participation in Specific Telephone Cases

Florida

Case: Docket No. 910289-TP; Edgewater Communications, Show Cause Re Alleged Violation of Certificate Statutes & Rules.  
Sponsor: Edgewater Communications  
Purpose: Prepare Testimony supporting EC Position that it is a Transient Reseller, exempt from Regulation under PSC rules.

Florida

Case: Undocketed; Edgewater Communications, Re Payment of Gross Receipts and Sales Taxes to Department of Revenue.  
Sponsor: Edgewater Communications  
Purpose: Prepare Interpretation of Tax Liability and assist in calculation of taxes and penalties.

Florida

Case: Docket No. 910869-TL; Revision to Rule 25-4.0345 re Customer Premise Equipment and Inside Wire.  
Sponsor: Edgewater Communications  
Purpose: Prepare Comments for Commission Workshop

Florida

Case: Docket No. 911214-TP; Teleco Communications, Show Cause Re Alleged Violation of Certificate Statutes & Rules.  
Sponsor: Teleco Communications  
Purpose: Define issues and defend company's position.

Florida

Case: Docket No. 950561-TL; Call Aggregator Rules  
Sponsor: Edgewater Communications  
Purpose: Prepare position and respond to draft of proposed rules.



DOCKET NO. 070183-WS

EXHIBIT (FS-2) \_\_\_\_\_  
CONSISTING OF 2 PAGES

PSC STAFF MEMORANDUM, February 7, 1983

M E M O R A N D U M

February 7, 1983

TO: JAMES COLLIER, WATER & SEWER DEPARTMENT  
FROM: GREGORY J. KRASOVSKY <sup>(P)</sup> ASSOCIATE GENERAL COUNSEL  
RE: LEGAL INTERPRETATION OF TERM "USED AND USEFUL" AS CONTAINED  
IN SECTION 367.081(2), FLA. STAT.

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This is in response to your request for a legal opinion as to the intent and use of the term "used and useful" as found in s. 367.081(2), Fla. Stat.

There are two aspects to the determination of utility property used and useful in the public service. First, a determination as to the value of utility property must be made. This question, revolving around the issue of original cost or fair value cost, has been addressed by the courts of this State and resolved. Valuation under the current statute is being determined based on original cost. Keystone v. Hawkins, 313 So.2d 724 (Fla. 1975).

The second aspect of a used and useful determination is what portion of a utility's property is involved in providing service to the public. Inherent in your request for a legal opinion on this issue are the following questions:

1. What may be included as being used and useful and,
2. What methodology is to be used in making that determination.

Mr. Collier  
February 7, 1983

Docket No. 070183-WS  
1983 Staff Memo  
Exhibit (FS-2) \_\_\_\_\_  
Page 2 of 2

The aspect of determining what is used and useful has seen little interpretation from the courts. There is no judicially approved approach or favored methodology which can be relied upon as the "proper" method for making that determination. By the same token, there is no established laundry list of items or criterion which should be considered in such a determination. In short, a legal precedent in this area is less than helpful in answering the above stated questions.

What decisions there have been on the issue of used and useful have revolved around whether the Commission's position is supported by competent substantial evidence. Almost all of these decisions have been nothing more than per curiam affirmed decisions which have upheld the Commission's used and useful determination without the rationale for doing so being stated. What these decisions do indicate, is that this issue is at the early stage of legal development where the adequacy of the evidence is the critical factor. Until the courts indicate otherwise, it would appear that any methodology or regulatory philosophy which Commission staff can support by competent substantial evidence can be utilized in making a used and useful determination.

GJK:lh

cc: Mr. Howe  
Mr. Harrold

DOCKET NO. 070183-WS

EXHIBIT (FS-3) \_\_\_\_\_  
CONSISTING OF 17 PAGES

PSC STAFF MEMORANDUM, April 14, 1975

M E M O R A N D U M

April 14, 1975

TO : WATER AND SEWER STAFF  
FROM: JAMES O. COLLIER, JR., CHIEF ENGINEER  
RE : USED AND USEFUL CONCEPT

-----  
In February 1973 I prepared the attached as a memorandum to the director with copies to the then assigned staff members.

I am again furnishing each staff member a copy for his information and guidance in interpolation of engineering exhibits presented by this section in rate cases.

JOC:kg

attachment

WATER AND SEWER SYSTEMS  
AS USED AND USEFUL IN PUBLIC SERVICE

The staff has considered the terminology of "used and useful" in preparation of and testimony given in several rate cases to date.

I feel that we do not have any particular difficulty in the proper definition of these terms. The real difficulty arises in forming a consistent guide for arriving at the amount or percentage of plant or plants in service allowable in a rate base as used and useful in public service.

From my observation there seems to be a tendency to use a very "sharp cutting edge" in defining the part of total plant to be allowed in a rate base as used and useful in public service.

I have definite convictions as to a proper method to be used in determination of used and useful in the engineering sense. My reasoning and references are set forth as follows.

Water and Sewer

Within the specific confines of the water and wastewater systems normally to be designed, the nature, position, and size of needed treatment works must be determined in optimal relationship (1) to the source and quality of the water to be treated, (2) to the origin and composition of the wastewaters produced, (3) to the nature of the receiving water into which the wastewaters are to be dispersed, (4) to the configuration and topography of the community and its environs,

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(5) to anticipated population, industrial growth, and areal expansion, and (6) to possible as well as probable physical amalgamations and the creation of regional and metropolitan authorities.

Few projects are so clearly fixed and so straightforward in their possible development as to justify the adoption of a single design period. Optimization may call for the staging of plant capacities and for progressive increases in treatment. To be resolved for each stage are the capacities, interest charges and funding, economies of scale, treatment capacities and levels, investment of funds, and service charges. To be recognized in studies of this kind is the difficulty of anticipating new technology and the cost of introducing new processes in comparison with the cost of continuing old ones.

It is rarely possible to establish complete physical, chemical, and biological similitudes. Therefore transfer from small to full-scale units and operations may offer some difficulties, and the exercise of good engineering judgment may provide the only anchor to windward. The water drawn from water purification plants and their subsequent delivery as spent waters to wastewater treatment systems may vary seasonally, monthly, daily, and hourly, not only in terms of flow, but also in terms of raw water quality and wastewater concentration. Treatment works are generally designed to deal with the maximum day's and even the maximum hour's

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worst flows within the span of the design period. Because design capacities must be founded on estimates of the most rigorous conditions encountered, the design of works and scheduling of operations are generally brought into harmony either by making provision for turning excess capacities to use while damping flow extremes, or by recognizing the possibility of introducing supplemental treatment that can counter either peak flow conditions or sudden changes in water or wastewater quality.

Examples in water purification plants are (1) holding treatment flows close to the average by storage of raw water inflow and product water outflow and (2) adjusting treatment performance to poor raw water quality by prechlorination or breakpoint chlorination and by the addition of powdered activated carbon or other useful chemicals. Examples in wastewater treatment are (1) offsetting similar variances by proper timing of waste discharges from the holding tanks of industry and (2) adding coagulating chemicals to the concentrated flows arriving at the treatment works.



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### Water Treatment Plants

The rated or nominal capacity of the treatment plant, usually expressed in gallons per day or million gallons per day, should exceed the maximum daily water demand of the system.<sup>2</sup>

A treatment plant is designed to serve the needs of the system adequately for a number of years. Expansion is indicated when the maximum daily demands of the system approach the rated capacity of existing facilities. As a general rule, steps to provide additional capacity should be taken at least 5 years before present capacity is reached to allow sufficient time for engineering investigations and design, financing, and construction.<sup>2</sup>

Future water demands are predicted as a basis for establishing treatment plant capacity. Studies to forecast water demand must consider population, commercial and industrial growth, water use trends, metering and extension policies, and service area boundary changes (as might occur through annexation). System water demands are commonly projected for 25 years or more.<sup>2</sup>

Involved are decisions to build initially for ultimate needs or to provide for development in steps. Fair and Geyer have listed six factors which have a bearing on the period of design of treatment facilities: (1) the useful life of facilities, (2) the cost of extension, (3) the rate of growth of the service area, (4) the rate of interest on the loan, (5) the change of purchasing power during the debt

-5-

period, and (6) the performance of the facilities during the  
early years.<sup>2</sup>

A common approach is to provide initially those portions of the ultimate plant that may not be built economically and conveniently in stages, and to provide the other facilities in steps as the need develops. Structures like pumping and chemical buildings fall in the former category, and tanks and filters in the latter. Initial investment is thus kept lower, releasing funds that would otherwise be tied up on unused facilities.<sup>2</sup>

When capacities of water treatment plants are determined, reserve capacities for contingencies may be set up in either one of two ways: (1) by using conservative design criteria or (2) by using carefully derived maximum-value criteria and adding reserve units. For example, unless the plant can be taken out of service for a substantial period of time for repair and maintenance work, it is usual to provide not less than two of any important items, such as settling basins, flocculators, or filters. The degree of standby provided is also an index of the importance of the item under consideration. It is not usual to provide a spare chemical feeder for corrosion control or for fluoridation but it is usual to provide a spare coagulant feeder when turbid water is expected, and a spare chlorinator is always provided. When continuity of pumping is essential, a spare pump

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unit is provided.<sup>2</sup>

In many instances, the units under consideration may not be absolutely essential, and the plant will function moderately well without them for a limited period of time. For example, a single rapid mix unit may be sufficient, and a plant having two settling basins may function reasonably well with only one.<sup>2</sup>

An additional factor to be taken into account is the degree of risk involved. When the plant is treating a water that is highly contaminated, a more conservative allowance for standby units should be made than might be required for a treatment such as iron removal alone.<sup>2</sup>

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### Water Distribution Systems

After collection and processing of a water supply, the distribution system must deliver it to the ultimate users. The importance of the distribution system is obvious when it is realized that more than half of the total investment in water supply facilities is allocated to the distribution of finished water.<sup>3</sup>

To be adequate, a distribution system must be capable of furnishing an ample supply of water of satisfactory sanitary and aesthetic quality whenever and wherever it is required in the service area. The system must maintain adequate pressures for normal residential, commercial and industrial uses and for providing the supply necessary for fire protection. It is usually necessary to raise the water to a sufficient elevation to provide the pressures necessary to distribute it through the area pipelines to the service mains and through the individual customer services and meters. In most systems, distribution storage is necessary to equalize and reduce the peak loads placed on the production and transmission elements of the system. Booster pumping is often required to serve more elevated areas or remote customers. The distribution system includes the pumps, pipelines, control valves, hydrants, distribution storage, service connections, mains, and meters.<sup>3</sup>

Rarely does a system produce or serve water at an average rate. The rate varies considerably over the year and during the day and differs in various sections of the country and in

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different types of communities. Data on average consumption and variations in consumption given in various textbooks<sup>3</sup> are an indication of the growth in demand over the years.

These figures are only general estimates based on past experience. They should be used with caution in forecasting future requirements, for many variables influence their applicability to any one system. Some of these variables are local climatic conditions, the character of community served, the extent of air-conditioning and lawn-sprinkling use, the relative amount of commercial and industrial development, and the percentage of customers metered.<sup>3</sup>

Forecasts of future water demands are commonly based on population estimates and on per capita consumption. Estimates of future population to be served are difficult to make, because so much depends on human judgment.<sup>3</sup>

Expansion of service areas presents one of the most critical problems in the provision of adequate and reliable water service. In most cities, great increases in population are not taking place within the political boundaries; they are more often taking place through rather haphazard annexation of outlying areas. County or area-wide planning is becoming increasingly necessary to determine adequately the extent of the future growth of a water system. The extent of such expansion, both in the immediate and more remote future,<sup>3</sup> must be recognized in planning the distribution system.

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As outlying areas are haphazardly developed and extensions are made for service, developers often install small mains for domestic service only, and many dead ends result. The people served expect, but rarely get, all the conveniences of potable water supplied at good pressures, and in adequate quantities. Later, fire service, which requires larger mains, becomes a necessity. New mains and extensions should not be laid except under a carefully considered plan that takes into account the location of the mains, hydrants, and valves and insures that the material and its installation meet specifications equal to those for the system of which it will ultimately become a part.

#### Sewage Collection System

A design period throughout which the capacity of the sewers will be adequate must be chosen in the design of sanitary sewers. Since the quantity of domestic sewage is a function of the population and of water consumption, lateral and submain sewers should be designed for the saturation density of population expected in the areas served.

Trunk sewers, outfalls and interceptions should be designed for the tributary area, land use, and population estimated to prevail at least 25 to 50 years in the future.

4

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### Sewage Pumping Stations

The establishment of the station capacity depends upon such studies as well as upon a forecast of probable growth in the area tributary to the station. If the area is not fully developed, the designer will be obliged to establish an initial station capacity which will probably meet the requirements for a reasonable time in the future, customarily for a period of not less than 10 years. The initial flows under these conditions may not be as great as allowed in the design. The effects of the minimum flow conditions must be carefully considered to assure that retention of the sewage in the wet well will not create a nuisance and that the pumping equipment will not operate too infrequently. Future requirements for station capacity must also be given consideration in order that additional or larger pumps can be installed as required to meet the inflow conditions as they develop. It should be readily apparent that the station capacity must be adequate to meet the maximum rate of flow. <sup>4</sup>

### Sewage Treatment Plant Design

Periods for design of a treatment plant vary not only with the type and degree of development of the community under consideration but also with the different parts of the sewage treatment plant. A normal design period would require treatment units to be designed for population and sewage flows anticipated some 15 to 20 years after completion of construction. <sup>5</sup>

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Within a treatment plant main conduit channels and other units which cannot be readily enlarged are designed for periods of not less than 20 to 25 years in the future. Provision for increasing capacities is made in pump, sludge disposal, and chemical buildings either by leaving space for future installation of additional equipment or by making oversized connections to present units.<sup>5</sup>

The following information has been extracted from a Comprehensive, "Regional Water Reclamation Plan" made by Consulting Engineers for the Upper Occoquan Sewage Authority, Virginia.

This report contains pertinent explanations of design criteria used in this proposed (now under construction) system to serve a very large area.

The SWCB (State Water Control Board) Occoquan Policy limits the certified flow of the initial plant to 10 mgd. However, the SWCB has confirmed that the original plant construction may have a larger capacity so long as the flow through the facility is held at or below the SWCB certified flow. In fact, the SWCB stated in their letter of November 5, 1971, to CH2M/HILL (Consulting Engineers) "...since the Policy envisions a flow of 25 mgd by 1980, a plant design of more than 15 mgd should be considered." As can be seen from the discussion presented in Chapter III, there is no doubt that the demand for sewer service in the UOSA service area is great enough that the present SWCB policy



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flow allocations for the years 1975-2000 will indeed require some restriction of the development which could occur if the policy were not in effect.

Population and flow projections for the study area clearly indicate that a 10 mgd facility would be loaded to capacity almost immediately if it were placed in service in late 1974. This would require the immediate initiation of a plant expansion program. The time required to complete the design and construction of the needed expansion would be two to three years, placing a moratorium on any further development during this period. Such a plan would (1) result in higher plant construction costs over the next few years than would the initial construction of a larger facility; (2) would place an unnecessary hardship on an area which already has faced an explosive, unmet demand for additional sewer service for several years; and (3) could create a serious lack of confidence in the UOSA by the populace because of "poor planning" in constructing a plant of inadequate capacity for the immediate needs of the area. Recognition of these facts prompted the SWCB to encourage the initial construction of a plant with capacity of "more than 15 mgd." Inefficient use of SWCB grant funds and local public funds would occur if the construction of a smaller facility were encouraged.

As noted in Chapter III, if there were no monetary or SWCB policy flow constraints involved the potential

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demand for sewer service in the UOSA area is so great that an initial plant capacity of 30 to 40 mgd could be justified for a design period of 10 years. Selection of capacity for the area's initial plant must be based not only on evaluation of growth potential, but also on the following considerations:

The financial capability of the populace to pay for plant capacity needed in the future has a finite limit. Phased construction of the regional system will be required for orderly development of the service area. This growth will also provide the funds needed for the financial support of future increases in plant capacity.

The SWCB requires an initial plant redundancy of 100 percent. This requirement magnifies the economic effects of increasing the initial plant capacity. For example, an initial nominal plant capacity of 10 mgd actually will involve construction of an equivalent 20 mgd facility; a 15 mgd plant, the equivalent of 30 mgd; a 20 mgd plant, the equivalent of 40 mgd, etc. Each increase in nominal capacity involves an equal amount of redundant capacity.

The SWCB policy allows a decrease in redundancy to as low as one-fourth of nominal capacity after plant efficiency and reliability has been proven. Thus, the cost of future plant expansions will not

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be as severely affected by redundancy requirements as will the initial plant.

In considering the above factors and the potential demand for future sewer service, an approach for plant capacity determination was developed which offers a balance between current financial capabilities, future demands for service, and the restrictions imposed by the SWCB policy.

The SWCB policy permits up to a 4:1 future ratio of on-line units to redundant units, while initially requiring a 1:1 ratio. This lessening of redundancy in the future permits construction of the initial plant with an on-line treatment train (operational system) and redundant treatment train, each made up of two parallel elements of equal capacity. After the initial demonstration period, one of the two elements of the redundant train can then be transferred to the on-line status. This would provide a 50 percent increase in the on-line capacity while still maintaining a satisfactory 3:1 on-line to redundant capacity ratio, with no further construction needed. Figure IX-1 presents this concept graphically. Provision of four elements, each with 50 percent (Q/2) capacity provides increased flexibility of operation as compared to only two elements, each with 100 percent (Q) capacity.

With this approach, the maximum practical size of some of the treatment units becomes a limiting factor in selecting

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the initial capacity. Some elements in the AWT processes (i.e., the carbon columns) have a maximum size corresponding to a capacity of about one mgd per element. However, where a larger number of elements is to be provided, the SWCB has agreed that the desired reliability can be achieved without mirror image redundancy. This is, if 15 carbon columns are required for a given capacity, it is not necessary to provide another 15 columns as redundancy, since the probability of 15 elements failing simultaneously is extremely small. The limitations of maximum element size are thus more important for those elements which are fewer in number and do require complete redundancy.

IN SUMMATION - My main recommendation is to assure that each system evaluated for used and useful content be done so in a fair and equitable manner. Full consideration should be given to the design criteria and the reasonableness of same. Using considerations other than design criteria measured against customers served and their requirements will result in an arbitrary decision as to what is used and useful in the public service.

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1. Fair, Geyer, Okun, Water and Wastewater Engineering, Wiley, New York, 1968.
2. Water Treatment Plant Design, Prepared by American Society of Civil Engineers, American Water Works Association, Conference of State Sanitary Engineers, Published by American Water Works Association, New York, 1969.
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4. Design and Construction of Sanitary and Storm Sewers, Joint Committee of the American Society of Civil Engineers and The Water Pollution Control Federation, ASCE Manual of Engineers Practice No. 37, ASCE, New York, 1960.
5. Sewage Treatment Plant Design, Joint Committee of the Water Pollution Control Federation and the American Society of Civil Engineers, WPCF, Washington, D. C., 1963.

DOCKET NO. 070183-WS

EXHIBIT (FS-4) \_\_\_\_\_  
CONSISTING OF 2 PAGES

PSC ORDER NO. 76844, Excerpt

3/14/77

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

Docket No. 070183-WS  
Deltona Case  
Exhibit (PS-4) \_\_\_\_\_  
Page 1 of 2

In re: Petition of DELTONA UTILITIES, a ) DOCKET NO. R-750626-WS  
Division of THE DELTONA CORPORATION, to ) (CR)  
increase its water and sewer rates in )  
Volusia County, Florida. (Section 367. )  
OSI(5), Florida Statutes )  
\_\_\_\_\_ ) ORDER NO. 7684

The following Commissioners participated in the disposition of this matter:

PAULA F. HAWKINS, Chairman  
WILLIAM H. BEVIS  
WILLIAM T. MAYO

Pursuant to notice, the Florida Public Service Commission, by its duly designated Hearing Examiner, WILLIAM B. THOMAS, held public hearings on the above matter in Deltona, Florida, on March 10 and 11, 1976.

APPEARANCES: WILLIAM J. LIVINGSTON, 3250 Southwest Third Avenue, Miami, Florida, representing the applicant.

C. EARL HENDERSON, Associate Public Counsel, The Holland Building, Tallahassee, Florida 32301, representing the Citizens of the State of Florida.

RAYMOND E. VESTERBY, 700 South Adams Street, Tallahassee, Florida 32304, for the Florida Public Service Commission.

The utility and the intervenors have waived their right to further participation by the Examiner and consented to the presentation of this application directly to the Commission. Now, having considered all the evidence herein and the briefs submitted by the applicant and Public Counsel, we enter our order.

ORDER

BY THE COMMISSION:

On June 24, 1976, we issued Order No. 7293 in this docket. In that Order we denied the Petition of Deltona Utilities, a Division of The Deltona Corporation, for an increase in rates for water and sewer service. The denial was based upon the grounds that Deltona had failed to present evidence as to the amount of its contributions-in-aid-of-construction, which rendered us unable to determine an appropriate rate base and rate of return.

We had found that persons who purchased homes and/or lots from 1962 until March 1, 1969, did pay some portion or all of the water and sewer systems.

Our Order was appealed to the Supreme Court of Florida which rendered its decision on February 3, 1977.

The Court found, in part, as follows:

"The basis for the action taken by the Commission in this case appears to be, as public counsel has urged and the Commission's order recites, that Deltona engaged in fraudulent land sales practices and should be held responsible for the plain meaning of its (advertisements and filings.)<sup>3</sup> If Deltona has engaged in an unfair business practice or committed fraud, however, it may be a concern of other state agencies or the basis for private law suits (on which we express no opinion), but it is not a matter of statutory concern to the Public Service Commission. That agency has no authority to vindicate breaches, if any, of the land sales laws or private contracts, and it may not assume the existence of some indefinite amount of contributions-in-aid-of-construction which its

Rate Base

Used and Useful -

Section 367.081(2), Florida Statutes, requires this Commission in setting rates to:

"...consider the value and quality of the service and the cost of providing the service, which shall include, but not be limited to, debt interest, the utility's requirements for working capital, maintenance, depreciation, tax and operating expenses incurred in the operation of all property used and useful in the public service, and a fair return on the utility's investment in property used and useful in the public service." (emphasis added)

The concept of "used and useful in the public service" basically an engineering concept, is one of the most valuable tools in utility regulation and rate making. It is basically a measuring rod or test used to determine the portion or amount of the utility's assets which are to be included in its rate base and upon which the utility has an opportunity to earn a return.

Basically a two-step determination, the first step is to establish the physical existence and cost of the assets which the utility alleges are in its operations. This is done by any of several methods, either individually or in combination. These include previous rate case determinations, original cost accounting records coupled with field verification and engineering cost evaluations.

Once the existence and cost of a utility's assets has been established, the second step in defining used and useful is to determine which identified assets are really used or useful in performing the utility's service obligation. The asset must be reasonably necessary to furnish adequate service to the utility's customers during the course of the prudent operation of the utility's business.

Generally, any asset which is required to perform a function which is a necessary step in furnishing the service to the public is considered used and useful.

In addition, good engineering design will give a growing utility a sufficient capacity over and above actual demand to act as a cushion for maximum daily flow requirements and normal growth over a reasonable period of time.

In the process of its review and verification, our staff has verified the existence and the original cost of the assets included in the application by the utility. We note that the applicant eliminated from its application almost \$2,100,000 as excess water capacity out of a net water utility plant of \$4,120,000; and also eliminated \$170,000 as excess sewer capacity out of a net sewer utility plant of \$2,190,000.

1. Sewer Plant and Collection System -

The sewage collection system is confined to the three housing areas. Mr. James Collier, Chief Engineer of our Water and Sewer Department, testified that the density of connections on the mains designated as used and useful was well within reasonable limits and that any questionable excess mains had been deleted from the used and useful assets (Ex. 29).

Concerning the sewer treatment plant, Mr. Collier testified that by using historic flow experience and allowing for a 20% growth factor, the entire plant would be considered used and useful (Ex. 29).



DOCKET NO. 070183-WS

EXHIBIT (FS-5) \_\_\_\_\_  
CONSISTING OF 4 PAGES

MARK UP OF PROPOSED RULE 25-30.4325

1 **25-30.4325 Water Treatment and Storage Used and Useful Calculations**

2 (1) Definitions.

3 (a) A water treatment system includes all facilities, such as wells and treatment  
4 facilities, excluding storage and high service pumping, necessary to pump and produce, treat,  
5 ~~and deliver~~ potable water to a transmission and distribution system.

6 (b) Storage facilities include ground or elevated storage tanks and high service pumps.

7 (c) Peak demand for a water treatment system includes the utility's maximum hour or  
8 day demand, excluding excessive unaccounted for water, plus a growth allowance based on  
9 the requirements in Rule 25-30.431, Florida Administrative Code, and where fire flow is  
10 provided, a minimum of either the fire flow required by local governmental authority or 2  
11 hours at 500 gallons per minute.

12 (d) Peak demand for storage includes the utility's maximum day demand, excluding  
13 excessive unaccounted for water, plus a growth allowance based on the requirements of Rule  
14 25-30.431, Florida Administrative Code, and, where provided, a minimum of either the fire  
15 flow required by the local governmental authority or 2 hours at 500 gallons per minute.

16 (e) Excessive unaccounted for water (EUW) is finished potable water produced in  
17 excess of 110 percent of the accounted for usage, including water sold, other water used, such  
18 as for flushing or fire fighting, and water lost through line breaks.

19 (2) The Commission's used and useful evaluation of water treatment systems and  
20 storage facilities shall include a determination as to the prudence of the investment and  
21 consideration of economies of scale.

22 (3) Separate used and useful calculations shall be made for the water treatment  
23 system and storage facilities. However, if the utility believes an alternative calculation is  
24 appropriate, such calculation may also be provided, along with supporting documentation.

25 CODING: Words underlined are additions; words in ~~struck through~~ type are deletions  
from the proposed rule.

1 Examples of cases that might warrant the use of alternative used and useful calculations  
2 include, but are not limited to: economies of scale, service area restrictions, factors involving  
3 treatment capacity, well drawdown limitations, and changes in flow due to conservation or a  
4 reduction in number of customers.

5 (4) A water treatment system, and storage, is considered 100 percent used and useful  
6 if:

7 (a) The system is the minimum size necessary to adequately serve existing customers  
8 plus an allowance for growth, and fire flow; or

9 (b) The service territory the system is designed to serve is mature or built out and  
10 there is no potential for expansion of the service territory; or

11 (c) The system is served by a single well.

12 (5) The used and useful calculation of a water treatment system is made by dividing  
13 the peak demand by the firm reliable capacity of the water treatment system.

14 (6) The firm reliable capacity of a water treatment system is equivalent to the pumping  
15 capacity of the wells, excluding the largest well for those systems with more than one well.

16 ~~However, if the pumping capacity is restricted by a limiting factor such as the treatment~~  
17 ~~capacity, or draw down limitations, then the firm reliable capacity is the capacity of the~~  
18 ~~limiting component or restriction of the water treatment system. In a system with multiple~~  
19 ~~wells, if a utility believes there is justification to consider more than one well out of service in~~  
20 ~~determining firm reliable capacity, such circumstance will be considered. The utility must~~  
21 ~~provide support for its position, in addition to the analysis excluding only the largest well.~~

22 (a) Firm reliable capacity is expressed in gallons per minute for systems with no  
23 storage capacity.

24 (b) Firm reliable capacity is expressed in gallons per day, based on 12 hours of

25 CODING: Words underlined are additions; words in ~~struck through~~ type are deletions  
from the proposed rule.

1 pumping, for systems with storage capacity.

2 (7) Peak demand is based on a peak hour for a water treatment system with no storage  
3 capacity and a peak day for a water treatment system with storage capacity.

4 (a) Peak hour demand, expressed in gallons per minute, shall be calculated as follows:

5 1. The single maximum day (SMD) in the test year ~~unless there is an~~ in which there is  
6 no unusual occurrence on that day, such as a fire or line break, less excessive unaccounted for  
7 water divided by 1440 minutes in a day times 2  $[((\text{SMD}-\text{EUW})/1,440) \times 2]$ , or

8 ~~2. The average of the 5 highest days (AFD) within a 30 day period in the test year,~~  
9 ~~excluding any day with an unusual occurrence, less excessive unaccounted for water divided~~  
10 ~~by 1440 minutes in a day times 2  $[((\text{AFD}-\text{EUW})/1,440) \times 2]$ , or~~

11 ~~3. If the actual maximum day flow data is not available, 1.1 gallons per minute per~~  
12 ~~equivalent residential connection  $(1.1 \times \text{ERC})$ .~~

13 (b) Peak day demand, expressed in gallons per day, shall be calculated as follows:

14 1. The single maximum day in the test year, ~~if there is~~ in which there is no unusual  
15 occurrence on that day, such as a fire or line break, less excessive unaccounted for water  
16 (SMD-EUW), or

17 ~~2. The average of the 5 highest days within a 30 day period in the test year, excluding~~  
18 ~~any day with an unusual occurrence, less excessive unaccounted for water (AFD-EUW), or~~

19 ~~3. If the actual maximum day flow data is not available, 787.5 gallons per day per~~  
20 ~~equivalent residential connection  $(787.5 \times \text{ERC})$ .~~

21 (8) The used and useful calculation of storage is made by dividing the peak demand  
22 by the usable storage of the storage tank. Usable storage capacity less than or equal to the  
23 peak day demand shall be considered 100 percent used and useful. A hydropneumatic tank is  
24 not considered usable storage.

25 CODING: Words underlined are additions; words in ~~struck through~~ type are deletions  
from the proposed rule.

1 (9) Usable storage determination shall be as follows:

2 (a) An elevated storage tank shall be considered 100 percent usable.

3 (b) A ground storage tank shall be considered 90 percent usable if the bottom of the  
4 tank is below the centerline of the pumping unit.

5 (c) A ground storage tank constructed with a bottom drain shall be considered 100  
6 percent usable, unless there is a limiting factor, in which case the limiting factor will be taken  
7 into consideration.

8 (10) To determine whether an adjustment to plant and operating expenses for  
9 excessive unaccounted for water will be included in the used and useful calculation, the  
10 Commission will consider all relevant factors, including whether the reason for excessive  
11 unaccounted for water during the test period has been identified, whether a solution to correct  
12 the problem has been implemented, or whether a proposed solution is economically feasible.

13 (11) In its used and usefulness evaluation, the Commission will consider other  
14 relevant factors, such as whether flows have decreased due to conservation or a reduction in  
15 the number of customers.

16 Specific Authority: 350.127(2), 367.121(1)(f) FS.

17 Law Implemented: 367.081(2), (3) FS.

18 History: New

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25 CODING: Words underlined are additions; words in ~~struck-through~~ type are deletions  
from the proposed rule.