ORIGINAL

REBUTTAL TESTIMONY OF FRANK SEIDMAN

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REGARDING THE APPLICATION FOR RATE INCREASE

IN PINELLAS COUNTY

BY MID-COUNTY SERVICES, INC.

DOCKET NO. 971065-SU

Q. Please state your name, profession and address.

A. My name is Frank Seidman. I am President of Management and Regulatory Consultants, Inc., consultants in the utility regulatory field. My mailing address is P.O. Box 13427, Tallahassee, FL 32317-3427.

Q. Have you previously presented direct testimony in this proceeding?

A. Yes.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to the direct testimony of Office of Public Counsel witnesses Biddy and Larkin and Commission Staff witnesses Crouch and Davis.

WITNESS BIDDY

Q. **At page 3 of his prefiled direct testimony, Mr. Biddy asks a** question, "Is it corret (sic) that used and useful is a concept, an abstract idea, so that mathematical rules and scientific terms do not apply," to which he answers, "No, that is incorrect." Do you have a comment on his question and answer?

A. Yes. I assume Mr. Biddy is responding to the statement in my testimony which says, "Used and Useful is not a mathematical or scientific term. It is a concept, an abstract idea, that, to my knowledge is found only in laws relating to the regulation of public utilities." If he is referring to my statement, he has misstated it. I never said mathematical rules and scientific terms do not apply. I said Used and Useful is not a mathematical or scientific term. It is a legal term, found only in laws relating to the regulation of public utilities. Mr. Biddy's discussion does not change that. Used and useful is not a part of any math, physics or engineering course that I have taken or of which I am aware. Mr. Biddy also says that Used and Useful is a concept, but it is not an abstract idea. Webster's dictionary defines

"concept" as something conceived in the mind; an abstract idea generalized from particular instances. A concept is, by definition, an abstract idea.

Q. At page 4 of his prefiled direct testimony, Mr. Biddy goes on to say that the used and useful process is a combination of economic regulation and engineering design concept. Do you agree?

A. No. I think I understand what Mr. Biddy is trying to say, but I don't agree with how he has said it. In my opinion, used and useful is a regulatory concept that should recognize the engineering, economic and regulatory aspects of providing service. If that is what Mr. Biddy had in mind, I agree with him.

Specifically, I disagree with the use of the term "economic regulation" as I understand it. I am aware that the Commission has been using that term in recent years, with greater frequency, but always without definition. My observation is that the term was created to differentiate between the type of regulation of public utilities carried out by this Commission and the type of regulation of public

utilities carried out by the Department of Environmental Protection (DEP). The reason I do not agree with its use is because I believe it tends to put the Commission in a position of regulating in isolation. By separating the "economic" considerations of this Commission from the "environmental" considerations of DEP, the cause of much of the costs a utility faces in providing service, including DEP's economic and engineering related considerations, are disregarded or given little weight.

As to Used and Useful being an engineering design concept, I must also disagree. As I have stated, it is a regulatory concept and not an engineering or engineering design concept. If it were an engineering or engineering design concept, it would a) be a factor in the design of wastewater systems, which it is not, and b) be a factor for consideration for <u>all</u> wastewater systems, not just regulated ones. Engineering design knows no politics, and the only difference between a regulated utility system and a governmentally owned, non-regulated system is political. I know of

no engineer that bases any engineering design on the regulatory concept of used and useful.

Q. If Used and Useful is not an engineering design concept, what is it?

A. Used and useful is an after the fact attempt "to determine the portion of a utility's assets which are to be included in its rate base and upon which the utility has an opportunity to earn a return." Those are the words of this Commission, set down in a 1977 Order and previously referred to in my direct testimony.

Now I am aware that in the very same Order, the Commission states that used and useful in the public service is basically an engineering concept. But the order clearly puts that term in context. That context is that one performing a Used and Useful analysis must rely on engineering knowledge to establish the physical existence of assets, to determine whether they are required to perform a necessary function in providing service to the public, to determine whether those assets are reasonably necessary to furnish adequate service to the utility's customers during the course of the

prudent operation of the utility's business, and to determine whether sufficient capacity over and above actual demand is available to act as a cushion for maximum daily flow requirements and normal growth over a reasonable period of time.

In its present practice, this Commission has focused on the use of formulas as a means of simplifying the measurement of whether facilities are reasonably necessary to furnish adequate service, but those formulas do not express engineering design or engineering design concepts. They are a means to an end. They are not the end itself. The end that is sought is the identification of assets reasonably necessary to furnish adequate service to the utility's customers during the course of the prudent operation of the utility's business. That is how this Commission has determined that the regulatory term used and useful should be interpreted.

Q. Have you read Mr. Biddy's arguments, on pages 4 through 9 of his prefiled direct testimony, as to why "matching" numerator and denominator

in the used and useful formula is right and why not matching is wrong?

A. Yes.

Q. Do you have any comments on those arguments?

A. They are mathematically correct, but his arguments stop short of concluding that they result in a determination of what plant is used and useful as this Commission has defined it. Do the results of his formulas allow the utility an opportunity to earn a return on (1) assets reasonably necessary to furnish adequate service during the course of prudent operation, (2) assets required to perform a function which is a necessary step in furnishing service to the public, (3) assets that have sufficient capacity over and above actual demand to act as a cushion for maximum day flow requirements and (4) assets that provide sufficient capacity over and above actual demand for normal growth over a reasonable period of time?

I would argue, no, they do not. Although Mr. Biddy uses the right catch words of economics and engineering in introducing his approach, the end result of his approach is to penalize a utility for

building plant in a timely and economical manner to carry out the functions which are required by law.

Q. At page 6 of his prefiled direct testimony, Mr. Biddy states that DEP didn't always have a clear designation of a plant's permitted capacity, but it has since 1992 or 1993. Does this provide any basis for the Commission to change how it measures used and useful for treatment plants?

A. No it does not.

The implication of Mr. Biddy's testimony is that prior to DEP's designation of the basis for permitted capacity, we were all either unaware of the basis of design flow and permitted capacity or that we all just assumed the basis must be maximum month average daily flow (MMADF). Therefore comparing MMADF to the permitted capacity made sense. But now that the secret is out and we are all aware that the basis of design flow and permitted capacity is "identified" as annual average daily flow (AADF), comparing MMADF to AADF is wrong.

It is quite simplistic to think that because DEP now requires designation of the basis of design flow that something has changed. It has not. The specific designation on DEP's forms did not change the basis for the design of treatment plants. Treatment plants have always been designed to treat all flows, whenever, and at whatever rate they occur. Prior to and after the requirement to designate the basis of design flow, treatment plants were designed to handle all of the hourly, daily, monthly and seasonal variations in flow. And prior to and after the designation of design flow, DEP reviews permit applications on the basis of whether the capacity is sufficient to meet all flows, whenever they occur.

Q. If nothing has changed with regard to plant design or DEP's reviews, why have things changed with regard to how the Commission measures used and useful?

A. There is an apparent perception that the Commission Staff now knows something it previously did not know when it first conceived the MMADF/Permitted Capacity formula -- namely that the permitted capacity was stated in terms of AADF. The

perception is that since Staff is now aware of this, it would be wrong to continue to match MMADF against that capacity, for purposes of measuring used and useful, because it is mathematically inconsistent.

Q. Is there any reason to believe that Staff was not aware of the situation when it conceived of the formula?

A. No. The simplified formula of MMADF to permitted capacity was formally suggested in 1982 by Mr. Jim Collier. At the time, he was Assistant Director of the Water and Sewer Department. Prior to that he had been Chief Engineer and Supervisor of the Water and Sewer Section of the Commission's Engineering Department. I personally knew Mr. Collier, and have no reason to doubt that he was well aware of the basis on which treatment plants were designed and what the then Department of Environmental Regulation (DER) took into consideration. His basis for introducing the simplified formula suggests that Mr. Collier didn't actually use the term MMADF in his suggested formula. He used the term "average daily flow", defining it as the "average of the daily flows during the peak usage month during the

test year." He then indicated that the simplified formula was the end result of thorough research by Commission Staff, including input from utilities and DER, and was intended to avoid conflict by being consistent with the standards of DER. To me, this indicates full knowledge of the makeup of the formula components and their consistency with DER's standards.

Q. What is the designated basis for design flows on the permits for most wastewater systems in Florida?

A. From what I have been able to determine, the majority designate AADF, and the vast majority of those that designate MMADF or Three-Month Average Daily Flow (3MADF) are serving mobile home parks, RV resorts, campgrounds, schools or other similarly seasonal loads. That is not to say that there are no year round systems that designate MMADF or 3MADF, but they are few in number and there is no discernable reason as to why they chose one designation over another. Very few regulated utility systems designate anything other than AADF. The fact is that the majority of systems serving year round, for all intents and purposes, have been and are being designed on the basis of AADF, even

though it was not specified on the permit. DEP staff confirms that since the forms and rules have changed, most applications for capacity permits are on an AADF basis. Even Mr. Biddy's testimony, "Though most of the time engineers use AADF as the basis of design flow ...", suggests that is the case. So there was no revelation when DEP changed its rules and forms in 1992 and no valid reason for this Commission to change its practice.

Q. Why don't utilities avoid all this controversy and simply designate the basis of flow design as MMADF or 3MADF, since it is their option to do so?

A. I think it is a matter of prudent management. Whatever level a plant is permitted at, it cannot exceed that level without being subject to a violation of DEP rules and a requirement to expand capacity. When a plant's design flow basis is designated as AADF, there is substantial flexibility for changes in daily and monthly flows. Increases in the maximum monthly flow are averaged with flows from eleven other months, allowing the annual flows to stay under the permitted capacity for a longer period. A utility should be able to serve longer for less dollars. However, if the

design flow basis is designated as 3MADF or MMADF, then flexibility is reduced. When those designated values are exceeded, the utility is in violation and capacity expansion may occur at more frequent intervals and at a greater cost to utility and customer.

Q. Does DEP provide any guidance as to which designation fits which circumstance?

A. No. There is nothing in the rules to help make that decision. From my conversations with DEP personnel, they just want the utility to use the basis which best represents the system's seasonality. And from what I have seen, that is a matter of personal judgement. Regardless of the designation, the engineer will design the plant to meet all flows and flow patterns. The consequence of the choice, as I have pointed out, can have a dollar impact. The choice of a peaking designation may result in more frequent and costly expansions, and the choice of AADF by a regulated utility may result in lost earnings to the utility.

Q. Have you any idea about how DEP feels about utilities simply changing their basis for design flow from AADF to 3MADF or MMADF?

A. The personnel I have spoken to do seem to favor AADF, indicating that 3MADF or MMADF appear to be more appropriate for small systems, such as mobile home parks or travel trailer parks that cater to truly seasonal clientele.

Q. Getting back to the concern for the alleged mathematical inconsistency of comparing MMADF flows to AADF capacity, are you aware of such an "inconsistency" already being utilized?

A. Yes. It is a part of the DEP rules. DEP, the agency responsible for determining when a utility must expand its treatment capacity, requires routine comparison of 3MADF to the permitted capacity of a plant, regardless of its designated basis. It uses that comparison as a basis for determining when capacity expansion will be required. DEP requires that comparison with full knowledge that the majority of permits are designated on an AADF basis. I have been told that this is done to make sure that capacity expansions are done in a timely manner. From this Commission's point of view, that

should be considered as a protection of the quality of service for a utility's customers and it should be taken into consideration in determining whether a utility's assets are used and useful in the public service. The Commission can accomplish that by continuing its long standing practice of comparing peak flows to permitted capacity. By changing to a comparison of AADF to permitted capacity, the Commission is penalizing the utility for prudently managing it facilities.

Q. You have made a determination of Used and Useful by comparing MMADF to permitted capacity. Wouldn't it be more consistent with DEP's requirements if you compared 3MADF to permitted capacity?

A. Yes it would. And I have no problem in doing that. That is one change in DEP's rules that does impact the use of the Commission's formulas. If the Commission is concerned with matching, then it should evaluate Used and Useful in the same way that DEP evaluates the need for capacity, by comparing 3MADF to the permitted capacity. Consistency between the "economic" regulator (FPSC) and the "environmental and engineering design" regulator (DEP) is a valid reason for the

Commission to change from its historic MMADF approach to a 3MADF approach. I have prepared Exhibit (FS-3)_____, which recalculates Used and Useful on the basis of 3MADF flows.

Q. Is there any other basis of measurement that confirms your conclusions as to Used and Useful treatment plant?

A. Yes. One can look to the typical 280 GPD/ERC design criteria for the plant. [280 GPD = 80% x the 350 GPD/ERC water use criterion.] PSC Staff identified 2,943 average ERC's for the test year. 280 GPD/ERC x 2,943 ERC's = 824,040 GPD demand. That is greater than the actual 3MADF for the test year and less than the actual MMADF. The design criteria of 280 GPD/ERC is an important consideration, because it is on that basis that capital is committed to meet DEP's criterion for adequate capacity.

Another measure to be considered is the demand in years prior to the test year. The test year for this case is 1996 and all calculations for Used and Useful have been based on 1996 flow data. But one year earlier, the system flows were 4.4% higher on an AADF basis, 6.6% higher on a MMADF basis and

1.9% higher on a 3MADF basis. The Used and Useful evaluation should, at the least, acknowledge the capacity that was required in 1995 as a minimum, because that demand is a known fact. The capacity was necessary then and the utility should not be penalized on a 1996 test year basis for having been able to have served a real and greater demand in the previous year. When these other measures are considered it confirms that the treatment plant is fully used and useful in the public service.

Q. At page 11 of his prefiled testimony, Mr. Biddy makes a case that the plant still has a design capacity of 1.1 MGD, even though it permitted at .9 MGD. Do you agree?

A. No. It is Mr. Biddy's opinion that by increasing the concentration of mixed liquor (MLSS) toward the high end of the theoretical MLSS range of 3,000 to 6,000 mg/L and wasting less sludge, solids retention can be maintained sufficient to treat 1.1 MGD. As a practical matter, it can't be done for this plant without an additional expenditure of capital. This plant operates efficiently at an MLSS level of 2,600 mg/L with the existing bank of blowers providing the necessary level of dissolved

oxygen, but it is limited in the amount of dissolved oxygen that the existing blowers can provide. When Mid-County converted 200,000 gallons of aeration capacity to equalization capacity, it dedicated one blower to the equalization basin. That blower is no longer part of the blower bank that can provide oxygen to the aerators. The plant cannot increase the MLSS concentration satisfactorily without an increase in blower capacity. Therefore, it cannot operate at 1.1 MGD in its present configuration and without additional investment.

Q. Are there other reasons that the plant should not be operated at 1.1 MGD in its present configuration?

A. Yes. Even if the plant was able to operate at 1.1 MGD, it could not meet the requirements for backup components required by EPA at that level. Although, as Mr. Biddy points out, EPA sets out levels of required redundancy for various components of the system, overall the system must be designed such that with the largest flow capacity unit out of service, the hydraulic capacity of the remaining units, excluding equalization basins, is sufficient

to handle peak wastewater flow. In other words, the hydraulic capacity needs to be twice the peak flow capacity. This system has two units, a .5 MGD unit and a .6 MGD unit, totaling the 1.1 MGD capacity referred to by Mr. Biddy. Each unit has a hydraulic capacity equal to twice its design capacity. But with the largest unit out of service, the remaining capacity is .5 MGD, The hydraulic capacity of the .5 MGD unit is 1.0 MGD, not 1.1 MGD. Therefore, if other factors could be ignored, the highest capacity this system could be assigned is 1.0 MGD, not 1.1 MGD. But other factors cannot be ignored. The blower capacity will not support operation at 1.0 MGD.

Q. **At page 14, of his prefiled direct testimony, Mr. Biddy concludes that the collection system, exclusive of any margin reserve, is 90.47% used and useful. Do you have any comment?**

A. Yes. I will not argue with his calculation because even his numbers result in 100% used and useful when margin reserve is taken into consideration, That agrees with the utility's determination.

I do take issue with his rationale for excluding lengths of collection system mains from used and useful plant. Mr. Biddy, in his Exhibit TLB-9, states that "from the engineering and public standpoint," gravity sewers should be considered non-used and useful when they go through empty lots to serve other customers.

Again, there is no engineering standpoint, principle, concept or theory that leads one to conclude that a main passing an empty lot is not used and useful. As previously, discussed, used and useful is a regulatory concept, and although this regulatory concept may affect the economics of the engineering design of a collection system, it is not part of the engineering itself. In addition, if, from an engineering standpoint, used and useful was a factor, it would be applicable to all systems, not just regulated systems. Engineering design is not altered by type of ownership of the system. Regulated water and wastewater systems serve something in the order of 10% of the population of Florida. The other 90% are served by publically owned systems for which the engineering design (as well as the public interest) function

quite well without any used and useful adjustments.

Specifically, with regard to how this Commission determines used and useful for the mains of water and wastewater systems, that is, by some variation of counting occupied and vacant lots, it should be remembered that the original purpose of this approach was to address a concern that in developer related systems, mains may be extended to whole subdivisions far in advance of need simply to benefit the developer. That is not the case here. The utility is not developer related. There is no indication of mains placed in service far in advance of need.

Q. At page 14 of his testimony, Mr. Biddy takes issue with a five year time period for margin reserve. Do you have a comment?

A. Yes, First his rationale - that the utility owner is required to comply with the FDEP rules, not the customer - exposes a flawed understanding of utility rate regulation. It is axiomatic that the costs a utility is required to incur in providing service <u>are</u> the costs to be recovered through rates from its customers. The costs a utility incurs to

comply with DEP rules are costs incurred on behalf of the customer and should be recovered through rates. The costs a utility incurs to be able to meet its obligation to serve in a reasonable period of time, without causing a deterioration of service quality are costs that should be recovered through rates. And the costs a utility incurs to be able to provide service in an economic manner should be recovered through rates. Second, according to CS for SB 1352, enacted by the 1999 Florida Legislature, property needed to serve customers five years after the end of the test year is used and useful in the public service.

WITNESS CROUCH

Q. At pages 3-5 of his prefiled direct testimony, Mr. Crouch makes some interpretations of Chapter 367, Florida Statutes. Do you agree with those interpretations?

A. No. Mr. Crouch mixes language from the statute with his interpretation and makes it appear as if they are one and the same. On page three of his prefiled direct testimony, Mr. Crouch states that there is a requirement that a used and useful percentage be calculated. He quotes Section 367.081(2)(a), F.S.

as his reference. But this section of the statute makes no reference to percentages. All it does is list the expenses and return on investment that comprise the cost of service which are to be the basis of rates. As Mr. Crouch points out, the cost of service includes certain expenses incurred in the operation of and a return on the utility's investment in property used and useful in the public service. The calculation of percentages happens to be the current method the Commission staff relies on as a means to that end. But it is a means and not the end, and it is not a statutory requirement. I have no problem with the use of percentages if they help to reach reasonable conclusions. But, in this case it appears that the percentage itself has become the issue rather than what is really the amount of property used and useful in the public service. The argument over how to establish the percentage is masking the true mission of the Commission.

Then on page 5 of his prefiled direct testimony, Mr. Crouch makes it appear as if his terminology "used by and useful to existing customers" means the same thing as the statutory language, "used and

useful in the public service." That is Mr. Crouch's interpretation and it is wrong. Neither the word "existing" nor "customer" appears in the quoted section of the statute. It is also wrong because it is contrary to the definition of Used and Useful established by the Commission in Order No. 7684, and previously quoted in my direct testimony. And it is wrong because it is contrary to the Commission's definitions in Rule 25-30.431, which it adopted July 3, 1997. (The rule was challenged successfully at DOAH by the industry, but DOAH's ruling was reversed on May 10, 1999.) The rule states that margin reserve is "an acknowledged component of the rate base used and useful determination," and that margin reserve is defined as "the amount of plant capacity needed to preserve and protect the ability of utility facilities to serve existing **and future** customers in an economically feasible manner that will preclude a deterioration in quality of service and prevent adverse environmental and health effects."

Q. **Do you have any comments about Mr. Crouch's testimony regarding matching the use of AADF in the**

numerator and denominator in calculating a used and useful percentage for treatment plant?

A. Yes. Most of my concerns with Mr. Crouch's testimony have been addressed either in my direct testimony or my rebuttal of Mr. Biddy's testimony. But I would like to address the allegation at page 11 of Mr. Crouch's prefiled direct that by calculating a used and useful percentage using MMADF in the numerator and AADF in the denominator, the utility gets the best of both worlds. In my opinion both the utility and the customer get the best of both worlds, because it provides a signal to the utility to expand in economic increments which result in lower long term costs and rates.

Q. **What is the consequence of designating design flows on an MMADF basis or an AADF basis, and using matching flows to determine Used and Useful?**

A. Designating both design flow and permitted capacity on an MMADF basis, just to make the denominator and numerator match, works against the economics of plant expansion. It puts the utility in the position of having to expand in shorter intervals with a resultant higher cost to the customer.

Designating both design flow and permitted capacity on an AADF basis, just to make the denominator and numerator match, puts the utility in the position of never having the opportunity to earn on its full investment, a right it is entitled to under Chapter 367, F.S. This also works against economic expansion because there is no incentive for a utility to make investments upon which there is no opportunity to earn.

Q. How does a utility lose the opportunity to earn on its investment if both numerator and denominator are designated on an AADF basis?

A. DEP makes its decisions regarding the necessity for plant expansion on the basis of 3MADF. That will happen when 3MADF flows meet or exceed AADF capacity. That will always happen before AADF flows meet or exceed AADF capacity. To meet DEP requirements, a utility will have to expand before 100% Used and Useful, as determined by this approach, is ever reached. If the Commission persists with determining Used and Useful on the basis of AADF flows, it will be signaling utilities to build the smallest additions with the shortest lead times and highest unit costs in order

to mitigate their lost ability to earn on their investment. Utilities will never be made whole, but their losses will be mitigated.

Q. Also at page 11 of his prefiled direct testimony, Mr. Crouch states that the previous owner, in 1980, requested that the plant be permitted for less than its design capacity, supposedly in an effort to reduce testing and operating requirements. Is that relevant in this case?

A. No. Regardless of the previous owner's reasoning in 1980, the plant is rated at the highest level it can be, considering the limitations I discussed in my rebuttal of Mr. Biddy's testimony. Even if it were relevant, I can't agree that the previous owner's actions were detrimental to customers. The elimination of one plant operator alone, without consideration for testing costs avoided, probably resulted in an annual savings of $25-35,000 of recoverable expense. That's a direct savings to the customer.

Q. At pages 12 and 13 of his prefiled direct testimony, Mr. Crouch addresses the subject of

margin reserve. Do you have any comments on his testimony?

A. Yes. Although I cover the subject of margin reserve thoroughly in my direct testimony, I want to respond to two points made by Mr. Crouch. I will first address his testimony on proposed legislation. Mr. Crouch characterizes the proposed legislation as an attempt to greatly increase the time frame for margin reserve without justification by the utility. Nothing could be further from the truth. The proposed legislation provides that the Commission consider property used and useful in the public service, if, among other things, it is needed to serve customers five years after the test year used in a rate request. The arguments justifying that provision have been made by experts time and time again. What Mr. Crouch means by his characterization is that it is not justified to him. But, it apparently was sufficiently justified to the Legislature because that proposed legislation was adopted during the 1999 session.

Q. Do you agree with Mr. Crouch's rationale for not supporting a five year margin reserve period?

A. No. Mr. Crouch acknowledges that DEP requires a growing utility to plan for expansion of facilities as much as five years in advance. However, he rationalizes not allowing a five year margin reserve period because the utility's major expense comes in the latter part of the five years; that is during the "construction" period. Mr. Crouch misses the point. It doesn't matter whether most funds for an expansion are expended during the beginning, middle or end of the margin reserve period because when a utility seeks recovery of those funds, 100% of them have already been expended. Recovery of the investment in margin reserve is sought <u>after</u> margin reserve assets have been constructed and are part of plant in service. Mr. Crouch makes it sound as if the utility is seeking to recover future costs, five years before they are incurred. The problem is that if a utility is to expand its facilities in an economic manner, and in compliance with the DEP guidelines, it should strive to be adding facilities no closer in time than every five years. During the period between facility additions, the utility must have adequate capacity in place to serve its customers. It is that capacity, already in place, that

comprises margin reserve assets. The definition of "margin reserve period" as proposed by the Commission in Rule 25-30.431, states that it is the "time period needed to install the next economically feasible increment of plant capacity." If the time period for installing the next economically feasible increment of plant capacity is five years, then the margin reserve period must be five years. But if the economic period is five years and the allowed margin reserve is 18 months, the utility goes uncompensated for its investment in 3 ½ years worth of capacity.

Q. Is a five year margin reserve justified for this utility?

A. Yes. A review of the history of the expansion of this utility will help to put things in perspective. The Mid-County system began operation in 1968 under the name of its former owner, Dyna-Flo Services, Inc. The initial plant had a capacity of 100,000 GPD, with disposal into adjacent percolation ponds. Three years later, an identical 100,000 GPD addition was made. Four years later, in 1974, 300,000 GPD capacity was added, but the percolation ponds were closed and disposal was

changed to surface water, specifically Curlew Creek. So this addition involved capacity expansion and a change in treatment and disposal technologies. To accommodate surface water discharge, two filters were added. In addition the two existing clarifiers were converted to digesters and an effluent wash supply tank and backwash tank were added. This 500,000 GPD capacity became insufficient four years later when, beginning in 1978, the utility faced building moratoriums because added customers would overload the plant. The construction of a 600,000 GPD plant addition could not be completed until 1980. The size of the addition was dictated by economies of scale and anticipated growth. Although it was nearly six years between the completion of this 600,000 GPD addition and the previous 300,000 GPD addition, the utility reserves were only sufficient to handle customer demand for four years, thus resulting the previously discussed moratoriums. No additions to capacity have been made since 1980, but modifications have been made to allow the plant to operate more efficiently by 1) converting aeration capacity to equalization capacity to dampen peak flows, and 2) converting existing filters to lime

storage tanks and utilizing the wash supply tank and backwash tank as a chlorine basin and digester. In addition nitrification filters were added to meet state standards. The history of this utility's plant capacity expansion indicates that the first two capacity expansions, which were added at three and four year intervals, lacked sufficient reserves to allow for longer more economical sizing. The last capacity addition again was needed within four years, but lacked sufficient reserves to meet the demands of its customers without causing deterioration of service until the next economic addition could be placed in service. Five years of margin reserve capacity was necessary, but not available, during those expansion years. Based on the history of this utility's demands, it was clearly prudent to anticipate a five year margin reserve requirement.

WITNESS DAVIS

Q. Mr. Davis has testified that the Commission should include an imputation of CIAC as a matching provision to the margin reserve calculation. Do you agree with his testimony?

A. No. At page 19 of my prefiled direct testimony, I have already addressed the fallacy of the so-called matching concept, indicating that it is not a match, but rather a mismatch between investment already incurred and in service with CIAC either not yet collected or collected and associated with non-used assets. The assets providing margin reserve capacity are invested prior to or during the test year and are used and useful assets. The imputed CIAC is from time period beyond the test year and not associated with the test year.

Q. To your knowledge, is Mr. Davis's opinion about matching supported by other professionals in his department?

A. No. Mr. Willis, Bureau Chief of the Water and Wastewater Division's Bureau of Economic Regulation, for which Mr. Davis works, testified in late 1997 and early 1998 that he no longer subscribes to the "so-called matching concept" and that he personally didn't see or hear of anybody on the Staff, in the past five or six years, that was supportive of imputation of CIAC. During those years, when Staff opinion was being reevaluated, Mr. Davis was a member of the staff of the

Communications Revenue Requirement Section of the Division of Auditing and Financial Analysis and had no dealings with, and developed no expertise with regard to imputation of CIAC.

WITNESS LARKIN

Q. At page 3 of his prefiled direct testimony, Mr. Larkin provides his views of how a utility chooses the design flow basis for a treatment plant and how DEP uses that information. Do you have any comments?

A. I have already covered that subject at length in my rebuttal to testimony of Witnesses Biddy and Crouch. The only points that bear repeating are that the "choice" of design flow basis is dictated by the amount of flexibility it provides in meeting demands at a reasonable cost, that AADF has been and remains the basis of choice by most utilities and the DEP because of that flexibility, and that no matter what choice is made, DEP measures the need for expansion based on the 3MADF.

Q. At page 6 of his direct testimony, Mr. Larkin takes issue with your conclusion that it is unreasonable that Used and Useful percentages should not

increase when the number of ERCs has increased since the last rate case. Would you please respond?

A. Mr. Larkin infers that my conclusion fails to consider that the Used and Useful percentage in the last case was based on an 800,000 GPD rating rather than the actual 900,000 GPD DEP permitted rating. That is incorrect. The 900,000 GPD rating was stipulated to in that case and Used and Useful calculations as well as service availability charge calculations assumed the 900,000 GPD rating. My comparison in Exhibit (FS-1)_____ assumes a 900,000 GPD rating for both the 1994 and 1996 test years. The most important statistic in the comparison is that actual flows increased nearly 11% in the two year period. When measured against the same plant capacity basis, that surely leads one to conclude that Used and Useful should increase. It is not the plant capacity basis that has skewed the Staff's results, but its refusal to evaluate Used and Useful in a manner consistent with DEP's rules for evaluating capacity requirements.

Q. At page 7 of his prefiled testimony, Mr. Larkin takes issue withe utility's choice of 20% for

margin reserve, but prefers the Staff's method of statistically analyzing past growth. Would that change affect the results?

A. No. My determination of margin reserve was based on Staff statistical procedures. Although it resulted in a different level of margin reserve, it did not change the resulting Used and Useful percentage. As to whether margin reserve should be measured as a percentage of demand or as an equivalent of customer growth, I will respond later in my rebuttal of Mr. Larkin's discussion of imputing CIAC.

Q. **At page 8 of his prefiled testimony, Mr. Larkin takes issue with your support for a five year margin reserve. Would you please respond?**

A. First, Mr. Larkin says its too long a period to construct a treatment plant. According to his experience, it doesn't even take five years to construct an electric power plant. That's interesting, but irrelevant. Power plant construction periods vary based on whether they are simple combustion turbines, complicated gasified coal plants, or something in between. My choice of a five year margin reserve is not based not on the

construction period for a plant, or even on the combined planning, engineering, permitting and construction period. It considers all of those factors, but mostly, it is based on the utility's ability to meet its statutory requirements as exemplified by the definitions of Margin Reserve and Margin Reserve Period in Commission proposed Rule 25-30.431. Those definitions are tied to the need to serve existing and future customers in an economically feasible manner and the period needed to install the next economically feasible increment of capacity. Somehow, during the period between additions to capacity, customers must continue to be served. What is available to provide that service? It is the capacity already in place. Testimony before this Commission and DOAH over the past several years, by design engineers and DEP Staff, has indicated that a five year increment is minimum for adding economic additions to treatment plant capacity. The five year margin provides consistency between engineering, economic and regulatory considerations.

Q. At page 9 of his prefiled direct testimony, Mr. Larkin points out a seeming inconsistency in your

testimony because you calculate margin reserve as the equivalent of five years annual growth. Would you please address this issue?

A. Yes. Mr. Larkin states that I am being inconsistent because I view margin reserve as currently utilized and necessary to serve current customers, yet I calculate margin reserve as the equivalent of five years growth. He then comes to the conclusion that, since I calculate margin reserve as the equivalent of growth, I am also being inconsistent in stating that imputing CIAC against margin reserve is an accounting mismatch.

I am very sensitive to the perceived inconsistency of expressing margin reserve as the equivalent of growth when it is used and useful. Expressing margin reserve for water and wastewater utilities in terms of customer growth is something that evolved over many years, independent from the evaluation of reserves for other types of utilities. Even as our understanding of the purposes of margin reserve and our ability to enunciate that understanding evolved, the basis for expressing margin reserve did not. Thus, although the proposed Rule 25-30.431 fully expresses the

purpose of margin reserve and relates it to the utility's ability to meet its statutory obligations, the proposed margin reserve formula still relies on a growth measure as its determinant.

Q. Are there ways to express margin reserve, other than as an equivalent of growth?

A. Yes. In the electric industry, reserves are expressed as a percent of demand. And even in this case, Mid-County in its MFR, expressed it as percent of demand.

Both electric utilities and water and wastewater utilities require some reserves to meet their statutory obligations. One expresses the reserve in terms of growth, the other as a percentage of current demand, even though, for both types of utilities, the reserve serves several functions, one of those being to provide a readiness to serve. Whether the reserve is expressed as a percent of demand or an "equivalent" of growth is not important, because the reserve can be expressed either way.

Q. Can you provide an example?

A. Yes. I could have expressed the margin reserve for Mid-County in this case as 13.6% of demand rather than the equivalent of five years annual growth. While Florida Power & Light Company's planned reserve margins for the next ten years, which range from 15% -23% of demand, could have expressed as the equivalent of 11 - 17 years of annual growth for its company. But, whether we use an equivalent of growth or a percent of demand to express the amount of reserve is merely a convention that has evolved and is not indicative of the purpose of the reserve. In the case of water and wastewater utilities, the Commission's definition of margin reserve states its purpose.

The means by which I have expressed margin reserve is not indicative of any inconsistency. But to alleviate any mis-perception, I have no problem in expressing the margin reserve for Mid-County as 13.6% of the customer demand.

Q. Does this perceived inconsistency affect your statement regarding an accounting mismatch of

imputed CIAC to margin reserve assets?

A. No. This perceived inconsistency in expressing margin reserve certainly does not invalidate my concern of mismatching imputed CIAC from a future period against expended funds for assets in place, the purpose of which is to meet a utility's ongoing statutory obligations.

To this day, I am still amazed that accountants can testify that matching liabilities from years 2, 3, 4 and 5, that have been neither incurred nor recorded, against assets in year 1, that have been incurred and recorded, is proper accounting procedure.

Q. **At page 11 of his prefiled direct testimony, Mr. Larkin takes issue with your conclusion that as a result of imputation the utility will never earn a full return. Can you respond to his testimony?**

A. Yes. Mr. Larkin states that the Commission has the authority to record AFPI for the "unutilized or non-used or useful plant until it is actually used to serve customers." The investment in margin reserve does not fit that category. By definition it is used and useful, even if Mr. Larkin doesn't

think so. So AFPI will never provide earnings on margin reserve against which CIAC has been imputed.

Q. Mr. Larkin also states the utility could choose to exclude margin reserve in rates and instead accumulate AFPI on the related plant. Why would a utility do that?

A. That is a good question. Why would a utility choose to classify its used and useful investment as non-used and useful investment and exclude it from rate base and the opportunity to earn on it? The answer is readily apparent. It is tied to the recommendation to impute CIAC against margin reserve. Imputed CIAC reduces rate base. That reduction can result in part or all of the utility's investment in margin reserve being offset. Therefore, as a practical matter, imputation of CIAC has the same effect as excluding margin reserve from rate base. So, even though it is an invested asset, the utility has little or no opportunity to earn on it.

Q. What is Mr. Larkin's solution?

A. Mr. Larkin's solution is to classify margin reserve as non-used plant, making it eligible for AFPI.

Q. What is wrong with that?

A. Several things. Margin Reserve is used and useful plant. It is necessary in order for the utility to meet its statutory obligations. It should be included in rate base with the opportunity to earn on it. A utility should not be put in a position of falsely classifying its assets to make an end run around Commission policy. That aside, AFPI provides only speculative earnings. The utility has an obligation to be ready to serve future customers within its service area, without compromising the service to existing customers. The customer does not have the obligation to take service. When a utility is granted a certificate to serve, the obligation comes with it and the utility does not have the option of abandoning that obligation and not investing in margin reserve. It also does not have the option of making applicants for service wait until capacity can be built to serve them. The utility must make its investment based on good judgement, but far in advance of when potential customers may appear. AFPI provides a return only if those customers appear. That puts the utility's investment at risk for performing a service which it cannot abandon.

Q. Isn't the utility compensated for taking that risk through its allowed rate of return?

A. No. The allowed rate of return reflects the low level of risk associated with regulated utilities that do not compete and do not face speculation.

Q. What are the consequences of the choices presented by Mr. Larkin?

A. They are a Catch-22. The utility either includes margin reserve in rate base, knowing full well that its opportunity to ever earn a full return are minimal or it classifies its used and useful plant as non-used and useful plant, places it at risk, and accepts, that maybe, someday it may earn a return far below that associated with the risk it would be required to take.

Q. What is the Commission's part in all of this?

A. Like the utility, the Commission also has a statutory obligation. That obligation is to the customers of a utility and to the utility. The obligation to the customers is fulfilled by making certain they receive adequate, sufficient, safe and timely service and are protected from monopoly behavior by the utility. Its obligation to the

utility is to protect its territory from incursion by other utilities and to provide it with the opportunity to earn a return on its investment in plant used and useful in the public service. Margin reserve is used and useful investment and imputation of CIAC prevents the utility from earning on that investment. What Mr. Larkin is suggesting is that the utility still continue to be obligated to provide margin reserve capacity in order to meet its statutory requirements, but that it voluntarily donate the associated earnings to the customers and relieve the Commission of its obligation to provide the utility with an opportunity to earn on its invested assets.

Q. Mr. Larkin characterizes the margin reserve as phony? Do you agree?

A. No. There is nothing phony about margin reserve. The utility could not perform its statutory obligations without it. And there is certainly nothing phony about the dollars invested. They show up on the balance sheet where everyone can see them. It's too bad the same can't be said for the imputed CIAC. Those dollars do not show up on the balance sheet because they aren't there. When CIAC

is actually paid, it will show up on the balance sheet, it will be an offset to plant in service that is also on the same balance sheet, and it will reduce rate base as it is supposed to do.

Q. Beginning at page 12 of Mr. Larkin's testimony, he proceeds to show by calculation that the utility will actually overearn on its investment in margin reserve rather than never earn on it as you have testified. Would you please respond?

A. Mr. Larkin's calculation has a few missing pieces. The service availability charge (SAC) paid by or to be paid by each new customer is determined, not on a customer by customer basis, but on the basis of the utility's overall ratio of net CIAC to net investment over an extended period of time. The Commission allows for adjustments to the SAC in order to maintain that ratio within its guidelines. Sometimes, as in the case of Mid-County, the SAC at one time was too low to maintain that ratio. After public hearings and a decision by the commission, upheld by the courts, Mid-County's SAC was adjusted upward. Adjustments in the SAC attempt to keep things in balance on a utility-wide basis. At one point in time it may be greater than the average

embedded per customer cost; at another point in time it may be less. Because of how it is determined, there is no direct correlation of the SAC to the embedded investment in margin reserve. Also left out of Mr. Larkin's calculation is the imputation of additional assets to replace the margin reserve assets no longer available when a customer comes on line. If you are going to impute CIAC that doesn't exist then you have to impute plant that doesn't exist. And if you do so, what cost do you assign to those assets - the embedded cost of existing assets or the incremental cost of new assets? A problem with imputing is that it deals with speculative numbers and events outside of the test year.

My conclusion that imputation of CIAC will deny the utility the opportunity to ever earn a return on its investment is supported by studies prepared and previously presented to this Commission during its hearings on the margin reserve rule. Those studies, based on the most favorable earnings assumptions for a utility, show that over the life of the assets, the utility never catches up and is never made whole.

Q. Does that conclude your prefiled rebuttal testimony?

A. Yes it does.

Docket No. 971065-SU
Witness: Seidman
Exhibit (FS-3)_____

MID-COUNTY SERVICES, INC.

WASTEWATER TREATMENT PLANT

For 12 months ended December 31, 1996

		gpd
3-Month Average Daily Flow (3MADF)		803,667
Annual Average Daily Flow (AADF)		720,956
Peaking Factor (Test Year) 3MADF/AADF = PF		1.115
Firm Reliable Capacity (FRC)		900,000

1. Margin Reserve Capacity (MRC) = EG x MP x D =

Average		98,080
Pk Month		109,332

where:

EG = Equivalent Annual Growth in ERCs (per PSC Staff) 73 ERCs

MP = Margin Reserve Period 5 years

D = Demand per ERC

Average	268.71	gpd
3- Month Avg	299.54	

Avg Demand/ERC = Annual SFR Gallons/SFR/366 = 268.71 gpd/ERC
Peaking Factor = 1.115
Demand per ERC, 3-Month Avg = 299.54

where: Annual SFR Gallons = 263,870,000
SFR = 2,683

2. Percent Used and Useful

$$\frac{3MADF + MRC}{FRC} = \frac{803,667 + 109,332}{900,000} = 101\%$$

OR

$$\frac{AADF + MRC}{FRC} \times PF = \frac{720,956 + 98,080}{900,000} \times 1.115 = 101\%$$

USE 100%