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**BEFORE THE ARIZONA CORPORATION COMMISSION**

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|---|---|
| IN THE MATTER OF THE APPLICATION OF GOODMAN WATER COMPANY, AN ARIZONA CORPORATION, FOR (i) A DETERMINATION OF THE FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND (ii) AN INCREASE IN ITS WATER RATES AND CHARGES FOR UTILITY SERVICE BASED THEREON. | Docket No. W-02500A-10-0382 |

**NOTICE OF FILING**

The Residential Utility Consumer Office ("RUCO") hereby provides notice of filing the Surrebuttal Testimony of Jodi A. Jerich, William A. Rigsby, CRRA, and Timothy J. Coley in the above-referenced matter.

RESPECTFULLY SUBMITTED this 13th day of June, 2011.

Arizona Corporation Commission
DOCKETED
JUN 13 2011
DOCKETED BY

Daniel W. Pozefsky
Chief Counsel

AN ORIGINAL AND THIRTEEN COPIES
of the foregoing filed this 13th day
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Docket Control
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1200 West Washington
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COPIES of the foregoing hand delivered/
mailed this 13th day of June, 2011 to:

Jane L. Rodda
Administrative Law Judge
Hearing Division
Arizona Corporation Commission

Janice Alward, Chief Counsel
Legal Division
Arizona Corporation Commission

Ayesha Vohra
Legal Division
Arizona Corporation Commission

Steven M. Olea, Director
Utilities Division
Arizona Corporation Commission

Lawrence V. Robertson, Jr.
Goodman Water Company
P. O. box 1448
Tubac, Arizona 85646

James Schoemperlen
39695 S. Horse Run Dr.
Tucson, AZ 85739

Lawrence Wawrzyniak
39485 S. Mountain Shadow Dr.
Tucson, AZ 85739

By Ernestine Gamble
Ernestine Gamble

# GOODMAN WATER COMPANY

# DOCKET NO. W-02500A-10-0382

# SURREBUTTAL TESTIMONY

# OF

# JODI A. JERICH

# ON BEHALF OF

# THE

# RESIDENTIAL UTILITY CONSUMER OFFICE

# JUNE 13, 2011

# TABLE OF CONTENTS

**QUALIFICATIONS** ..... 1

**RATE CASE EXPENSE TESTIMONY** ..... 3

**EXCESS CAPACITY TESTIMONY** ..... 11

**(A) EXCESS CAPACITY SHOULD BE REMOVED FROM RATE BASE** ..... 11

**(B) RESERVE MARGIN THEORY** ..... 13

**(C) PRUDENT AND USED AND USEFUL ARE TWO DIFFERENT TERMS** ..... 17

**(i) PLAIN LANUGAGE OF COMMISSION RULES** ..... 17

**(ii) PAST COMMISSION DECISIONS** ..... 19

**(iii) PUBLIC POLICY** ..... 23

**Q. Please state your name, occupation and business address for the record.**

A. My name is Jodi Jerich. I am the Director of the Arizona Residential Utility Consumer Office (RUCO). My business address is 1110 W. Washington Street, Suite 220, Phoenix, Arizona 85007.

**Q. Please state your educational background and qualifications in the utility regulation field.**

A. Governor Brewer appointed me to serve as the Director of RUCO in February 2009. The Arizona State Senate found my qualifications met the statutory requirements found in Arizona Revised Statutes §40-462 and confirmed my appointment. As Director, I oversee and approve all testimony and briefs filed by RUCO. In consultation with my staff, I direct the public policy decisions of the office.

From 2003 through 2005, I was employed at the Arizona Corporation Commission as the Policy Advisor to Corporation Commissioner Mike Gleason. In that role, I advised the Commissioner on matters coming before the Commission. I was actively involved in the utility policy-making decisions of that Commissioner's office.

Except for the time I was employed by the Commission, from 1997 through 2008, I was employed at the Arizona House of Representatives. I held several positions during my tenure, eventually becoming Chief of Staff and Counsel to the Majority Caucus. Relevant to the question at hand, I advised Legislators on matters involving water, energy, Commission jurisdiction and utility security.

In 2006, when Governor Janet Napolitano appointed Barry Wong to fill the Commission seat vacated by Commissioner Marc Spitzer's appointment to the Federal Energy Regulatory Commission (FERC), I took a leave of absence from the Legislature for a short time in order to assist Commissioner Wong establish his office.

Finally, I am a Phi Beta Kappa graduate of Indiana University. I also have a law degree from Indiana University and am a member of the Arizona and Tennessee bars.

**Q. Have you filed testimony previously in this docket?**

A. No.

**Q. What is the purpose of your surrebuttal testimony?**

A. I will provide testimony on two issues. First, I will explain RUCO's objection to the Company's position on rate case expense. Notably, that the Company in its rebuttal testimony, now requests the Commission ***double*** its rate case expense amount because of RUCO's participation in this matter.

Second, I will discuss RUCO's policy position on excess capacity. Specifically, I will testify why RUCO believes "prudent" expenditures and "used and useful" plant are two distinct concepts in utility ratemaking. My testimony on the policy considerations of excess capacity are meant to complement the technical calculations made of the amount of excess capacity of Goodman's system by RUCO's witness, Mr. Coley.

## RATE CASE EXPENSE

**Q. Have you, in your position as Director of RUCO, ever filed testimony on rate case expense before?**

A. No.

**Q. What compels you to address this matter, which is typically a routine, albeit disputed, issue in virtually every rate case?**

A. Mr. Bourassa claims that RUCO's intervention in this rate case is a direct cause of the doubling of rate case expense.

> "First, RUCO has intervened in this case which was not anticipated. In my experience, RUCO typically does not get involved in Class C and smaller company rate cases. Whatever the reason RUCO chose to intervene in the instant case ***RUCO's intervention has and will cause a significant increase in costs.***" (emphasis added)
>
> (Bourassa Rebuttal Testimony, p. 33, lines 7-10)

**Q. Does Mr. Bourassa's assertion that RUCO's involvement justifies a 100% spike in rate case expense have any merit?**

A. None. Mr. Bourassa's rebuttal testimony is both specious and inflammatory. His rebuttal testimony suggests that RUCO's intervention actually injures customers because our participation will result in higher rates. This position infers that RUCO's participation only serves to punish the ratepayers. If not conclusively repudiated now, the Commission can expect this message to be repeated in testimony for other utilities.

**Q. Is RUCO allowed to intervene in rate cases of small utility companies?**

A. Yes. In A.R.S. §40-462, the Legislature directs RUCO to represent the interests of residential utility consumers before the Corporation

Commission. A.R.S. §40-464 authorizes RUCO to intervene, ***at the discretion of the Director***, in any rate case of a "public service corporation" as a party in interest no matter what the size of the Company. While RUCO does not have the resources to intervene in every rate case, we do our best to provide support to Arizonans who need a voice before the Commission.

**Q. So why did RUCO intervene in this matter?**

A. RUCO intervened for several reasons.

First, Congresswoman Gabrielle Giffords' office contacted RUCO and brought this rate case to our attention. A copy of the email from Ron Barber, Congresswoman Giffords' District Director, to me is attached as Exhibit A.

Second, State Senator Al Melvin contacted RUCO regarding this rate increase. Like Congresswoman Giffords, State Senator Melvin represents the residents served by Goodman Water.

Third, several residents of Eagle Crest Ranch approached RUCO asking for our intervention in the rate case.

Fourth, the glaring issue of excess capacity of Goodman Water's system is a matter of concern for RUCO.

**Q. Isn't it true that the Company could not have foreseen the issue of excess capacity raised in this rate case and that this justifies doubling rate case expense?**

A. Absolutely not. The Company had ample notice that excess capacity was going to be an issue in its rate case at the time it filed its Application. And it was in its Application that the Company provided its original estimated rate case expense. The Company has failed to provide any legitimate reason for increasing rate case expense beyond its original estimate filed in its Application.

**Q. What support does RUCO have for claiming Goodman Water was on notice that excess capacity was "on the table" for this rate case?**

A. Prior to the filing of the Application, Commission Staff issued a Staff Report regarding Goodman Water's system. In that Report, Staff noted the following:

> "Based on these plant capacities, ***this system can currently serve approximately 1,800 customers***...In addition, Staff concludes that the water system has sufficient capacity to meet the customer growth through 2019." (emphasis added)

September 2, 2010 Staff Report, p. 2

The service list shows that the Report was mailed to Goodman Water and to its attorney of record. Additionally, the Report was docketed and publicly available.

**Q. And how many customers did Goodman Water have during the Test Year?**

A. 626 customers.[1] This customer count is well below the 1,800 customers that the system can accommodate as calculated by Staff.

**Q. Even if the Company could reasonably foresee Staff raising the excess capacity argument, isn't it fair to say that it could not have foreseen (1) RUCO's intervention and (2) RUCO's analysis of excess capacity?**

A. Not really. The level of customer discontent was so high that RUCO's participation should not have come as a surprise.

Furthermore, Mr. Bourassa is familiar with RUCO's excess capacity argument. After all, it is the same excess capacity argument RUCO made

[1] See Bourassa Schedule H-2, p. 4.

in Gold Canyon.[2] (Docket No. SW-02519A-06-0015) In fact, Mr. Bourassa was the expert witness for Gold Canyon in that matter. As Mr. Bourassa notes in his rebuttal testimony, "I am very familiar with that case, because I was both a consultant and witness for the Company." (Bourassa Rebuttal Testimony, p. 19, lines 9-10)

**Q. Do you have any concluding remarks regarding rate case expense?**

A. Yes. The Company has failed to provide any legitimate reasons why the Commission should allow rate case expense over and above the Company's original request of $80,000. $80,000 is a reasonable amount of rate case expense for several reasons. First, it is a rational amount of compensation when requesting a $262,717 rate increase.[3] A $160,000 rate case expense is blatantly unreasonable when compared to the size of the requested overall revenue increase. A rate case expense that is roughly 2/3 of the total increase is not only unreasonable, but offensive. The Company should know better than to make a request that in essence punishes its ratepayers through unreasonable and meritless rate case expense. Second, $80,000 is a reasonable amount because it is the amount requested by the Company in its Application. The Company is in the best

[2] RUCO's excess capacity argument is the same although its calculations and methodology are different. For example, in Gold Canyon, RUCO did not recommend an extra 10% margin when calculating the amount of excess capacity. However, RUCO did recommend a reserve margin calculated in a different way applicable to the facts and circumstances of that case. The reserve margin benefits the utility in both cases.

[3] See Bourassa Rebuttal Testimony, p. 2, lines 1-4.

position to make an informed cost estimate. At the time of its Application, it had notice that excess capacity was going to be a litigated issue. Furthermore, it knew that there was a significant amount of discontent among its ratepayers and RUCO's intervention was certainly possible.

In essence, Mr. Bourassa's excessive and unsupported inflation of rate case expense sends the wrong message to customers, to elected officials, RUCO and to the Commission.

To customers, Mr. Bourassa's testimony states that customers should not request RUCO intervene in their rates cases. For if they do, the utility will only ask for more rate case expense and, in the end, RUCO's participation will only end up hurting the customers' wallets. Another way of looking at this is that any success RUCO's participation would have in reducing a rate increase would only be wiped out by an alleged increase in rate case expense.

To elected officials, Mr. Bourassa's testimony signals that these officials should not get involved in matters involving their constituents. For if they do, they run the risk of elevating rate case expense.

To RUCO, Mr. Bourassa's testimony attempts to provide a chilling effect on the decision making of the Director.

To the Commission, Mr. Bourassa's testimony impedes on the necessary balancing of interests between ratepayers and the utility. For Mr. Bourassa, the Company can hire him and other high priced experts to advocate on its behalf. But customers deserve no similar advocate.

It is true that RUCO does not typically intervene in cases involving smaller utilities. RUCO simply does not have the financial and staff resources to intervene in every rate case. However, that does not mean that RUCO will not get involved in a smaller case if there is a good reason. RUCO chooses to intervene in cases where RUCO's participation can have the greatest impact on the largest number of ratepayers or in cases where there is an important issue of public policy or law in question in dispute. In this rate case, where rates are already well above the rates of neighboring water utilities and the case involves a sizeable amount of excess capacity, RUCO's participation is lawful, appropriate and helpful to the discussion. The claim that RUCO's participation doubles rate case expense, if left unchecked, effectively impedes RUCO's legal obligation to fulfill its mandate to represent the interests of Arizona families and individuals before the Corporation Commission.

## EXCESS CAPACITY

Q. **What is the purpose of your testimony on excess capacity?**

A. The purpose of my testimony is to explain the policy reasons in support of RUCO's position on excess capacity and its concept of a "reserve margin". Specifically, I will discuss why it is so important that excess capacity be removed from rate base. Furthermore, I will provide detail why RUCO believes that even if a utility made a "prudent" decision to build out its system, the Commission must and should refuse to allow recovery of that prudently incurred cost until that plant is "used and useful". "Prudent" and "used and useful" are not synonymous terms. Each requires its own analysis. This is evident after looking at several factors:

1. The plain language of the Commission's Rules.
2. Past Commission decisions.
3. Arizona case law and US Supreme Court case law.
4. Public policy.

## The Theory of Excess Capacity and Its Exclusion from Rate Base

**Q. What is excess capacity?**

A. The concept of excess capacity is not new to utility ratemaking. Nonetheless, the term "excess capacity" is not defined in Commission Rule.

However, the Commission, in its ***Gold Canyon*** Order states that excess capacity is "available plant capacity that exceeded the amount necessary to serve its existing customers."[4]

**Q. Why does RUCO believe it is important that excess capacity be removed from ratebase?**

A. Since excess capacity is plant that exceeds the amount necessary to serve its existing customers, it is plant that will serve future customers and should not be paid for by current customers. To allow excess plant into ratebase is to allow a utility to recover costs from existing customers for plant that will serve future customers. It is completely contrary to basic tenets of utility ratemaking. It shifts the entire risk of growth on current ratepayers resulting in unfair and inflated rates that effectively leave the utility with little incentive to self-police itself when determining plant requirements. Furthermore, it obliterates any sense that customers are paying a fair cost for the service provided.

Q. **Isn't RUCO being unrealistic in prohibiting a utility from recovering any amount of plant that does not precisely match up to the exact customer count in an historical test year? More bluntly, isn't RUCO totally naïve about real world business practices and if RUCO's**

[4] Decision No. 69664, p. 5, lines 20-23.

**position is adopted it would restrict utilities from making prudent business decisions?**

A. Absolutely not. RUCO readily admits that it is a typical business practice to plan ahead for growth. If an enterprise expects to grow and expand it must plan for such growth.

Furthermore, it is because of this reality that RUCO is not recommending that ALL excess plant be removed from ratebase. Under Mr. Coley's methodology, RUCO recommends a "reserve margin" to reflect this real world dilemma that utilities face in balancing the need to accommodate for growth without overbuilding.

**Q. Explain RUCO's "reserve margin" theory.**

A. RUCO acknowledges that a water system cannot be designed to serve the exact number of current customers in any sort of economically feasible manner. The planning of future capacity requirements is not an exact science. But the negative impact of such an inexact calculation should not be entirely borne by either the ratepayer or the shareholder. For this reason, RUCO's recommends a "reserve margin". This "reserve margin" provides the balance that assures that risk is equitably shared by both parties. To balance these considerations in this case, RUCO recommends a reserve margin that exceeds the Company's six percent (6%) customer

growth rate from year 2009-2010. The reserve margin allows ample time for the Company to make any necessary service line connections and meter installations.

Adoption of RUCO's "reserve margin" allows the Commission to balance risk of anticipated growth among both the investors and the ratepayers in a manner that is fair to both. The reserve margin benefits the utility because it allows some amount of plant that is available for future customers to be included into ratebase now. It also benefits the utility because it provides the Company the ability to address plans for growth without fear of being unable to precisely estimate the number of customers during the test year for their next rate case. Finally, it takes away any perceived disincentive that might make a utility under-build its plant.

**Q. Why is RUCO's "reserve margin" approach different than Staff's "engineering analysis"?**

A. As I stated earlier, RUCO believes it is appropriate that the Commission accept the reality that plant cannot be built to the precise customer count in the test year. And that in the short run, there will possibly be plant that can

accommodate more customers than those served by the utility in the historical test year. [5]

Staff and the Company proposes an "engineering approach" that provides recovery for costs that meet a 5-year planning horizon. Under this engineering approach, as long as the Company's growth projections were reasonable at the time they were made, then the plant that was built to meet this 5-year planning horizon is prudent. And because it is prudent it is inherently used and useful. RUCO respectfully contends that this logic is strained – that these two concepts are separate and discrete considerations. The finding of "prudent costs" cannot bootstrap a finding of "used and useful".

RUCO believes that its "reserve margin" approach is a better balance of ratepayer and utility considerations than Staff's 5-year engineering analysis. First, a five year period places the entire risk of that five year projection on current ratepayers. Second, RUCO finds that a five year look ahead is too long of a time period. Arizona residents are witnesses to Arizona's rapidly-changing economic environment and our state's habitual boom/bust cycles that began in the Wild West days of Tombstone, Arizona and continue

[5] Perhaps there has been no time more evident than in today's current real estate crisis to recognize the dilemma faced by both ratepayers and utilities. Utilities that designed plant during the real estate "boom" days of a few years ago are now facing the "bust" of that cycle. So, too are the ratepayers who are facing high unemployment levels, mortgage foreclosures, substantial losses of equity in their homes and sharply rising utility rates. The result is excess capacity that does not serve existing customers. RUCO believes this issue is likely to repeat in other rate cases. A clearly defined policy on excess capacity that is fair to both the ratepayers and the utility and its shareholders is needed.

through to today's mortgage meltdown crisis. Third, the 5-year rule of thumb does not provide the Commission any flexibility based on the specific situation of any particular case. Each rate case present unique facts and the Commission should have a flexible guideline to balance the interests of those ratepayers while still giving the industry a stable and easily understandable guideline to follow. Fourth, the engineering analysis relies almost entirely on the uncensored projections of the Company. It is my understanding that there is little oversight on the utility's 5-year projections. Finally, as I will discuss in greater detail below, RUCO disagrees strongly that the Commission should allow all prudently incurred costs regardless of whether the plant is used and useful.

**Q. So, while RUCO is recommending a 10% reserve margin in this case, could RUCO recommend a different percentage of reserve margin in a future case?**

A. Yes. Mr. Coley's testimony defends how RUCO came to find that 10% is appropriate in this case. The point of my testimony is to explain why the concept of a "reserve margin" provides an equitable balance between the interests of ratepayers and shareholders.

Q. **Staff and every intervenor in this rate case makes the argument that the Company has excess capacity on its system. Does exclusion of**

**plant that is not being used to service existing customers in this rate case mean that the Company would be left unwhole for its investment in that plant?**

A. No. Exclusion of the excess capacity merely changes from whom the costs are recovered and when. When growth actually occurs, the full amount of the investment at that time would receive rate base treatment and rate recovery. The Company can elect to file another rate case at a time of their choosing.

**Prudence and Used and Useful are Two Distinct Ratemaking Concepts, are Not Synonymous and Both Criteria Must be Met For Rate Recovery**

**Q. Mr. Bourassa comments that the Company's decision to invest $3.1 million in plant expansions was prudent at the time and these costs are, therefore, must be considered used and useful. (Bourassa rebuttal testimony, pp. 10-11) Does RUCO believe that prudent costs should be recovered if the plant is not used and useful?**

A. No. RUCO contends that costs must be **both** "prudent" and "used and useful" in order to be placed into ratebase. Each term has its own meaning and requires a different analysis. RUCO's position is supported by:

1. The plain language of the Commission's Rules.
2. Past Commission Decisions.

3. Sound public policy.

I explain each supporting argument in detail below.

**1. The Plain Language of the Commission's Rules.**

**Q. What is a prudently incurred expense?**

A. Commission Rule R14-2-103 defines "Prudently Invested" as:

"Investments which under ordinary circumstances would be deemed reasonable and not dishonest or obviously wasteful. All investments shall be presumed to have been prudently made, and such presumptions may be set aside only by clear and convincing evidence that such investments were imprudent, when viewed in the light of all relevant conditions known or which in the exercise of reasonable judgment should have been known, at the time such investments were made." (R14-2-103(I))

For further guidance, the National Regulatory Research Institute (NRRI) defines "prudence review" as follows:

"The process by which a regulator determines the prudence of utility resource decisions goes to the heart of the goal of aligning private and public interests For utility-built resources, utilities often seek this approval many years ***prior to the resource being determined "used and useful" and available for service***..." (emphasis added) (http://communities.nrri.org/web/mutli-utility-diversity-in-utility-contracts/glossary ) (Exhibit B)

**Q. Does Commission Rule define "used and useful"?**

A. No. However, Commission Rule defines "Original Cost Rate Base" as:

An amount consisting of the depreciated original cost, ***prudently invested***, of the property (exclusive of contributions and/or advances in aid of construction) at the end of the test year, ***used or useful***, plus a proper allowance for working capital and including all applicable pro forma adjustments." (R14-2-103(h))

A similar definition exists for "Reconstructed Cost New Rate Base"

**Q. In your opinion, what does these definitions tell you?**

A. It tells me that in order to be placed into ratebase, the Commission's own rules require the cost be both prudent and used and useful. In other words, the Commission requires in its own Rules that the two concepts have different considerations.

**Q. Why?**

A. To begin, it is informative that the definition of "prudently invested" makes no mention of used and useful. "Used and useful" is not a factor in the definition of "prudently invested". Furthermore, the definitions of OCRB and RCND include both "prudent" and "used and useful" as elements in consideration of its calculation. If "prudent" and "used and useful" mean the same thing, then there would be no reason to mention both concepts in the definitions of OCRB or RCND.

The plain language of the Commission's own rules tell me that these two concepts have separate meanings. Second, the basic rules of statutory

construction requires that each word must be given its own meaning.[6] Again, basic statutory construction and interpretation lead me to the conclusion that these two terms do not have the same meaning.

**2. Past Commission Decisions.**

**Q. Has the Commission agreed with your assertion that "prudent" and "used and useful" are two distinct ratemaking concepts and that *both* criteria must be met before the Commission authorizes rate recovery?**

A. Yes. Commission Decisions support RUCO's position that "prudent" and "used and useful" are two separate ratemaking concepts and that both criteria must be met before costs may be recovered in rates. Furthermore, the Commission has consistently required plant to be used and useful before allowing it to be placed into rate base.

In a 2001 ***Arizona Water*** rate case for its Northern Group, the Company asked for recovery of costs to install a steel casing during planned ADOT highway construction with an open trench. This casing would be used to

[6] "In construing statute or rule, court presumes that promulgating body did not intend to do futile act by including provision that is not operative or that is inert and trivial, and thus must give every word, phrase, clause and sentence meaning so that no part of the rule is rendered superfluous, void, insignificant, redundant or contradictory. (Patterson v. Maricopa County Sheriff's Office, 177 Ariz. 153, 156 (App. 1993).

replace an existing water line in 2003. Arizona Water claimed the cost was prudent because it would have cost much more if the utility had not taken advantage of ADOT's open trench. In rejecting this argument, the Commission stated:

> "We agree that the Company's decision to take advantage of the ADOT project was prudent. However, we disagree that the Company is entitled to recover the cost of placing the steel casing in this proceeding since the plant is not used and useful at this time. After the project to the subdivision is completed the Company may seek inclusion in rate base. Until the plant is being used for provision of utility service the costs are not includable in the Company's rate base." (Decision No. 64282, p. 9, lines 13-17)

Of course, the most recent, and most contentious case involving the debate over the scope of these two terms came in ***Gold Canyon.*** Upon rehearing, the Commission agreed with RUCO that although Gold Canyon's costs were prudent, they were not permitted into rate base because they were not used and useful. (Decision No. 70624 at p. 9)

**Q. What other Commission Decisions support RUCO's assertion that plant must be used and useful prior to being placed into rate base?**

A. Commission Decisions in ***Pima Utility*** (Decision No. 58743), ***LPSCO*** (Decision Nos. 57944 and 50273), provide further support that plant must be used and useful. Furthermore, through these Decisions, we see that the Commission does not commingle the terms "used and useful" and "prudent". They are separate and discrete considerations.

In ***Pima Utility***, the Commission stated:

"In the instant case, the CWIP has been completed by the additional plant is not serving any customers. The Company is asking current customers to pay for plant that is not used and useful and will be used to serve only future customers. Although there was evidence presented that a small percentage of this additional plant may be considered used and useful from an engineering standpoint, as of the date of the hearing, for ratemaking purposes this additional plant is not used and useful under the circumstances." (Id at 5)

In ***LPSCO*** Decision No. 50273, The Commission stated:

"For ratemaking purposes 50% of the total installed cost of the new treatment plant shall be considered used and useful property for inclusion in rate base on the in service date. The remaining 50% shall be included in rate base proportionate to the percentage of utilization in any given test year." (Id. at 2)

The Decision is highly illustrative of the difference between "prudent" and "used and useful". Here, the Commission has impliedly made a prudency determination that 100% of the plant is "prudent". However, only when the remaining plant is "used and useful" will it be included in rate based in any given test year.

In ***LPSCO*** Decision No. 56362, the Commission excluded excess capacity from rate base.

"Staff excluded from rate base a sludge concentrator that is no longer used and useful and continued to disallow approximately 50% of the sewage treatment plant found to be excess capacity in Decision No. 50273." (Id. at 7)

**Q. Any other regulatory support for RUCO's position that "prudent" and "used and useful" are two different concepts?**

A. Yes. The 2004 NARUC Ad Hoc Committee on Critical Infrastructure issued a paper on cost recovery for critical infrastructure protection measures. In it, NARUC discusses the dilemma of how to allow recovery of costs to protect critical infrastructure if no attack occurs.

"Under traditional regulation, utilities may recover costs that are both "prudent" and "used and useful" **It is the role of a commission to review costs and ensure that recovery is based on prudently incurred costs that are both used and useful.** (Emphasis in the original) How that review occurs is a product of state statute, administrative rules, and traditions of practice." (Exhibit C, p. 20)

In support of this statement, the NARUC paper cites to Duquesne Light Company v. Barasch, 488 US 299 (1989). I will discuss Duquesne and other cases later in my testimony.

**3. Sound Public Policy**

Q. **Earlier in this testimony, you stated that the third reason why "prudent" and "used and useful" are two separate ratemaking concepts is grounded in sound public policy. Can you explain your reasoning for this statement?**

A. Yes. Sound public policy requires these two terms to have different meanings and different applications in ratemaking. This assertion is best articulated in the amicus brief filed by the Industrial Energy Consumers of Pennsylvania in the United States Supreme Court case Duquesne.[7] Although long winded, it hits the policy bulls-eye. It reads in part:

> "The Fifth and Fourteenth amendments to the United State Constitution do not require states to allow recovery of or on prudently incurred investments by regulated utilities without any consideration of whether those investments produced used and useful utility property...
>
> By creating a constitutional entitlement to utility investor recovery which does not produce used and useful public service, this Court would upset the long-established principle of public utility regulation that should mirror the competitive private marketplace in an otherwise monopolistic business...In the private unregulated economy, the invisible hand of the market usually does not provide a return or, or on, investments, however prudent, which turn out to be wrong by not producing property which is used and useful in making products or service consumers wish to purchase...The visible hand of public regulation should not provide an affirmative constitutional entitlement to the recovery of such prudent, yet uneconomic, investments. Such an entitlement would create an undue preference for the utility investor over the investor in the private competitive marketplace. It would not only shift the balance in favor of the utility investor over the ratepayer and the private investor, but would also upset the balance inherent in the American economy between regulated entities and nonregulated entities. The former would recover any prudent investment, with the cost of prudent but uneconomic investment borne by their customers and not by their shareholders. Competitive private enterprises have no such guarantee and the cost of their prudent, yet uneconomic investments are usually borne entirely by their shareholders. No rational reading of this Court's teaching in the Hope and Permian

[7] In Duquesne, the US Supreme Court upheld Pennsylvania statute that precluded inclusion of plant in rate base until it was used and useful. This case stemmed from the issue of whether Pennsylvania utilities that invested funds in the construction of nuclear power plants that were later abandoned or cancelled could recover their prudently invested costs.

Basin cases would conclude that this Court intended the former as a result." (Amicus Brief of Industrial Energy Consumer of Pennsylvania, 1987 WL 880084)

**Q. Does that conclude your testimony on this subject?**

A. Yes.

# EXHIBIT A

## Jodi Jerich

**From:** Barber, Ron [Ron.Barber@mail.house.gov]
**Sent:** Thursday, November 04, 2010 11:54 AM
**To:** Jodi Jerich
**Subject:** Goodman Water Company issue
**Attachments:** Congresswoman Giffords letter to ACC.pdf

Dear Ms. Jerich,

Congresswoman Gabrielle Giffords has asked me to contact you to request that you review the proposed Goodman Water Company rate increase. The Congresswoman recently received a copy of an email (copy below) that was sent to you in which residents of Eagle Crest Ranch requested an opportunity to discuss their concerns with you. She is hopeful that you will meet with the residents as they have requested.

The Congresswoman has received 35 complaints from constituents who would be affected by another water rate increase. We understand that more than 300 additional complaints have been send directly to the Arizona Corporation Commission. I have attached a copy of Congresswoman Giffords' letter to the ACC regarding this matter.

Thank you for your consideration of this rate increase issue that would have a dramatic and adverse impact on the residents of Eagle Crest Ranch.

-----Original Message-----
From: Larry Wawrzyniak <larrywaw@hotmail.com>
To: Jodi Jerich <jjerich@azruco.gov>
Cc: Bill Rigsby <brigsby@azruco.gov>; Bill Daniels <bildaniels@aol.com>; JimSchoemperlen <jscho@sargentcontrols.com>
Sent: Wed, Oct 13, 2010 10:53 pm
Subject: Goodman Water Co. Rate Increase

To: Jodi Jerich, Director RUCO

Re: Docket No. W-02500A-10-0382 Goodman Water Co. Rate Increase

The residents of Eagle Crest Ranch are the only customers of the Goodman Water Company (GWC). GWC has submitted a rate increase that is unjustified and based on speculative infrastructure costs.

Here are our talking points:

GWC built a water plant with capacity for 1,800 homes but we only have 650 homes built. This is approximately 200 more homes since our last rate increase in 2007. See Docket No. W-02500A-06-0281: Decision #69404. The total development build out is 920 homes. This is almost a 100% over capacity. See Document No. 116091, dated 9/2/10 attached. We should not have to pay bailout for any speculative capacity built by GWC though rate increases.

Our current water rate is approximately 250-300% more than adjacent communities (SaddleBrooke $23, Catalina $27, Goodman $70) and GWC appears to have no concern on the effects on future homes sales but rather sink money into infrastructure as a means to a guaranteed return on investment better than the general financial market.

The depreciation of capital plan they are using is flawed. We have a CPA, Jim Shoemperlen, on our committee who has documented this issue and can discuss this with you.

We have concurrently discussed these topics with State Senator Al Melvin, Senatorial Candidate Cheryl

Cage and Congresswomen Gabrielle Giffords', District Director Ron Barber. All have indicated that there is cause to investigate this further and they offered to support this issue.

We also had a very informative discussion with Bill Rigsby who has been most helpful in assisting us and recommended that we contact you.

We would like to schedule a conference call with you to discuss a request for your staff to act as Intervener for our case.

Looking forward to your reply,

Larry Wawrzyniak, Chairman, Concerned Citizens Committee
Bill Daniels, Chairman, Homeowners Executive Advisory Committee
Jim Schoemperlen, CPA

*Ron Barber*
*District Director*
*Congresswoman Gabrielle Giffords*
*520.881.3588*

***Sign-up for e-updates from Congresswoman Giffords at www.giffords.house.gov***

GABRIELLE GIFFORDS
8TH DISTRICT, ARIZONA

WASHINGTON OFFICE:
1726 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-2542

DISTRICT OFFICES:
TUCSON OFFICE
1661 NORTH SWAN, SUITE 112
TUCSON, AZ 85712
(520) 881-3588

COCHISE COUNTY OFFICE
77 CALLE PORTAL, SUITE B-160
SIERRA VISTA, AZ 85635
(520) 459-3115

# Congress of the United States
## House of Representatives
## Washington, DC 20515–0308

www.giffords.house.gov

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SUBCOMMITTEE ON THE WESTERN HEMISPHERE

October 29, 2010

Chairwoman Kris Mayes
Arizona Corporation Commission
1200 West Washington
Phoenix, AZ 85007

Dear Chairwoman Mayes,

I am writing on behalf of 35 residents of Eagle Crest Ranch who have contacted my office with serious concerns about Goodman Water Company's proposed water rate increase. As you know, I have been sending you the residents' concerns as they have come into my office. Thank you for your receptivity to this information. I understand that you have also directly received hundreds of other letters on this issue.

I have reviewed the letters and information presented to my staff by representatives of the residents of Eagle Crest Ranch when they met to discuss the community's concerns. The drastic jump in water rates for the customers of Goodman Water Company that would result from an approval of their application is most alarming. Many of my constituents must make difficult decisions about household costs and family expenditures. A large jump in their monthly utility bills will only add to the financial challenges they are facing.

Given the large volume of comments submitted by the residents of Eagle Crest Ranch opposing this rate increase, it is clear that the impact of Goodman Water Company's actions will not be small. Thank you for giving thorough consideration to the residents' concerns and for seeking ways to minimize the hardships this rate increase would impose. I have copied your colleagues on the Arizona Corporation Commission and ask the same of them.

Sincerely yours,

Gabrielle Giffords
Member of Congress

cc: Sandra Kennedy, Commissioner, Arizona Corporation Commission
Paul Newman, Commissioner, Arizona Corporation Commission
Gary Pierce, Commissioner, Arizona Corporation Commission
Bob Stump, Commissioner, Arizona Corporation Commission

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# EXHIBIT B

# GLOSSARY

(Redirected from FrontPage)

Below are electric industry glossary terms. Some of these definitions come from Spectra Energy's website. Please augment definitions or add additional terms, though do so in alphabetical order. Please note that some of these definitions come from other sources like the EIA, Spectra Energy, and ISO New England.

**Accumulated deferred income taxes (ADIT)**: An adjustment to rate base reflecting timing differences in taxes for book and ratemaking purposes. Accelerated tax depreciation is one of the drivers of ADIT.

**Accelerated depreciation**: A regulatory (not tax) treatment that allows the utility to recover asset capital costs more rapidly than through conventional straight-line depreciation, through which the utility recovers costs evenly over each asset's useful life.

**Adjustment clauses**: Allowing for recovery of specified costs as incurred, e.g., on a monthly or annual basis.

**Advanced metering infrastructure**: Meters and data systems that facilitate two-way communication between customer meters and the utility. Information can be transmitted at intervals ranging from five minutes to an hour. Advanced meters can use radio or fiber optic technology to communicate information.

**Ad valorem tax**: A state or local tax based on the assessed value of the real or personal property.

**Air Conditioning Cycling Program**: A demand-side management program in which the utility remotely controls customers' cooling equipment and periodically interrupts power to the equipment during times of high power system demands.

**Allocation**: The assignment of property functionalized and classified utility costs to customers, customer groups, or unbundled services based on cost causation principles.

**Allowance for funds used during construction (AFUDC)**: A non-cash accounting convention of regulatory utilities that represents the estimated composite interest costs of debt and a return on equity funds used to finance construction. The allowance is capitalized in the property accounts and included in income.

**Alternating Current (AC)**: A periodic current, the average value of which over a period is zero. Unless distinctly specified otherwise, the term refers to a current that reverses its direction at regularly recurring intervals of time and that has alternately positive and negative values. Almost all electric utilities generate AC electricity because it can easily be transformed to higher or lower voltages.

**Ancillary services**: Ancillary services are those services necessary to support the transmission of energy from generation to loads while maintaining reliable operation of the Transmission Provider's transmission system in accordance with Good Utility Practice. These include including regulation and frequency response (regulation or automatic generator control), spinning reserve, nonspinning reserve, replacement reserve, and reactive supply and voltage control.

**Annualization**: An adjustment to a cost of service study to reflect a full 12 months effect of a rate base, income, or expense item that is only if effect for a part of the year.

**Arbitrage**: Trading the same security, currency or commodity in two or more markets in order to profit from differences in prices. Economic theory states that arbitrage eliminates inefficiencies in markets.

**Auction revenue rights (ARR)**: Entitlements in regional transmission organizations to receive revenues generated by the sale of Financial Transmission Rights in a specific auction.
**Available transfer capability (ATC)**: The amount of energy above "base case" conditions that can be transferred reliably from one area to another over all transmission facilities without violating any pre- or post-contingency criteria for the facilities in a control area under specified system conditions.
**Average cost**: The revenue requirement divided by the quantity of utility service.
**Average Cost Pricing**: A pricing mechanism based on dividing the total cost of providing electricity incurred in a period by the number MWh (wholesale) and kWh (retail) sold in the same period.
**Asset retirement obligation (ARO)**: A liability for the legal obligation associated with the retirement of a tangible long-lived asset that a company is required to settle as a result of existing or enacted law, statute, ordinance or written oral contract. AROs are amortized over the remaining life of the asset.
**Baseload capacity**: The generation normally operated at all times to serve load. Typically, this includes units with low marginal costs such as hydro and nuclear generators.
**Baseload Plant**: A plant, usually housing high-efficiency steam-electric units, which is normally operated to take all or part of the minimum load of a system, and which consequently produces electricity at an essentially constant rate and runs continuously. These units are operated to maximize system mechanical and thermal efficiency and minimize system operating costs.
**Basis point**: As applied to the return on equity and rate of return, each basis point is one one-hundredth of a percent.
**Bilateral Contract**: A direct contract two parties centralized power pool or RTO auction. Examples include contracts between independent power producers a utilities and contracts between two utilities selling energy, ancillary services, capacity, or fuel.
**Black start capability**: The ability to rapidly start an off-line, idle, non-spinning electric generation source. Such abilities enhance grid reliability and are considered ancillary services.
**Btu (British Thermal Unit)**: A standard unit for measuring the quantity of heat energy equal to the quantity of heat required to raise the temperature of 1 pound of water by 1 degree Fahrenheit.
**Capacity factor**: The ratio of total energy produced by a generator for a specified period to the maximum it could have produced if it ran at nameplate capacity through the entire period, expressed as a percent.
**Capacity market**: Markets found in certain RTOs including PJM and ISO New England where generators receive compensation for investing in generating capacity. Load-serving entities, the market participants that secure electric energy, transmission service, and related services to serve the demand of their customers, make capacity payments to generators to ensure the long-term availability of sufficient generation capacity for the reliable operation of the bulk power grid.
**Coefficient of correlation**: A measure of how well trend in one variable follows trend in another variable. The correlation coefficient is a number between 0 and 1. If there is no relationship between the two variables the correlation coefficient is close to 0. The stronger the relationship, the higher the correlation coefficient. Cluster analysis - a technique that is used in different disciplines to assign a set of observations (data points) into subsets (clusters), such that observations in the same cluster are similar in some characteristics, but have different characteristics between the clusters.

**Coincidental Demand**: The sum of two or more demands that occur in the same time interval. Utilities sometimes allocate certain costs to customers on this basis.

**Combined Cycle**: An electric generating technology in which electricity is produced from otherwise lost waste heat exiting from one or more gas (combustion) turbines. The exiting heat is routed to a conventional boiler or to a heat recovery steam generator for utilization by a steam turbine in the production of electricity. This process increases the efficiency of the electric generating unit.

**Billing cycle**: The period of time or the dates of occurrence for issuing periodic bills for service to customers. The billing cycle is also used loosely to refer to the customer's meter read cycle, i.e., the reading of the billing meter as opposed to the calculation of the bill.

**Capacity**: The ability of a utility to have the resources available to meet the needs of its customers.

**Capacity, base load**: Capacity used to serve an essentially constant level of customer demand. Base load generators typically operated whenever they are available, and they usually have a capacity factor above 60%.

**Capacity, intermediate**: Capacity intended to operate fewer hours per year than base load capacity but more hours than peaking capacity. Typically, such units have a capacity factor of 20%-60%.

**Capacity, peaking**: Capacity used to serve peak demand. Peaking generators operate a limited number of hours per year and normally feature capacity factors of less than 20%.

**Capacity factor**: The ratio of the total energy generated by a unit for a specified period to the maximum possible energy it could have generated if operated at the maximum capacity rating for the same specified period, expressed as a percentage.

**Capitalized costs**: Costs are capitalized when they are expected to provide benefits over a period longer than one year.

**Carbon intensity**: The amount of carbon by weight emitted per unit of energy consumed. A common measure of carbon intensity is weight of carbon per British thermal unit (Btu) of energy. When there is only one fossil fuel under consideration, the carbon intensity and the emissions coefficient are identical. When there are several fuels, carbon intensity is based on their combined emissions coefficients weighted by their energy consumption levels. Also see Emissions coefficient and Carbon output rate.

**Cascading**: The uncontrolled successive lost of system elements triggered by an incident at any location. Cascading, often caused by changes in voltage, results in widespread service interruption, which cannot be restrained from sequentially spreading beyond an area predetermined by appropriate studies.

**Classification**: The separation of costs into categories of fixed costs (demand-related), variable costs (energy-related, and customer costs (costs which are proportional to the number of customers and include meter reading, customer accounting and collections).

**Coincident peak demand**: The maximum demand that a load places on a system at the time the system itself experiences its maximum demand.

**Combined cycle**: An electric generating technology in which electricity is produced from otherwise lost waste heat exiting from one or more gas (combustion) turbines. The exiting heat is routed to a conventional boiler or to a heat recovery steam generator for utilization by a steam turbine in the production of electricity. This process increases the efficiency of the electric generating unit.

**Combined heat and power plant (CHP)**: A plant designed to produce both heat and electricity from a single heat source. Note: This term is being used in place of the term "cogenerator" that was used by EIA in the past. CHP better describes the facilities because some of the plants included do not produce heat and power in a sequential fashion and, as a result, do not meet the legal definition of cogeneration specified in the Public Utility Regulatory Policies Act (PURPA).

**Commodity (volumetric) costs**: Costs that tend to vary with the quantity of utility service provided.

**Competitive market**: A market in which a large number of buyers and sellers trade independently such that no one participant can influence price.

**Complementary good (complement good)**: A good which is consumed together with another good (example, cars and gasoline). If the price for one good increases, the demand for another good decreases.

**Congestion**: A condition that occurs when insufficient transfer capacity is available to implement all of the preferred schedules for electricity transmission simultaneously. Congestion prevents the economic dispatch of electric energy from serving load.

**Connection charge**: An amount to be paid by a customer in a lump sum or in installments to the utility for connecting the customer's facilities to the supplier's facilities.

**Construction work in progress (CWIP)**: A regulatory treatment that allows utilities to earn a return on, but not of, investments before they are placed in service. Absent CWIP, utilities bear financing costs during the period prior to project operation and then recover them after projects commence operation. In other words, putting CWIP in rate base does not allow the utility to recover the CWIP costs themselves. The utility instead recovers only the financing costs associated with the CWIP. The CWIP amount earns a return at the utility's Weighted Average Cost of Capital (WACC). Further, where CWIP is put in rate base with an AFUDC offset, the only dollar cost recovery created is CWIP times the excess of the allowed return over the AFUDC rate. This amount is substantial only where the AFUDC rate is based primarily on debt, particularly short-term debt, rather than a measure of the utility's WACC.

**Consumer Price Index (CPI)**: These prices are collected in 85 urban areas selected to represent all urban consumers about 80 percent of the total U.S. population. The service stations are selected initially and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full, mini, and self service).

**Contract for Differences**: A form of bilateral contract where the electric generation seller receives a fixed payment amount over time which is a combination of the short-term market price and an adjustment which the purchaser for the difference.

**Contract path**: A specific contiguous electrical path from a point of receipt to a point of delivery for which transfer rights have been contracted. The actual or real path of electricity could differ from the contract path.

**Contract Price**: Price of fuels marketed on a contract basis covering a period of 1 or more years. Contract prices reflect market conditions at the time the contract was negotiated and therefore remain constant throughout the life of the contract or are adjusted through escalation clauses. Generally, contract prices do not fluctuate widely.

**Cooperative Electric Utility**: An electric utility legally established to be owned by and operated for the benefit of those using its service. The utility company will generate, transmit, and/or distribute supplies of electric energy to a specified area not being serviced by another utility. Such ventures are generally exempt from Federal income tax laws. Most electric cooperatives have been initially financed by the Rural Electrification Administration, U.S. Department of Agriculture.

**Cost of debt**: The interest rate paid on new increments of debt capital multiplied by 1 minus the tax rate.

**Cost-Based Rates**: A ratemaking concept used for the design and development of rate schedules to ensure that the filed rate schedules recover only the cost of providing the service.

**Cost of New Entry (CONE)**: An economic concept depicting the price of capacity in $/kw-month that is needed to attract sufficient new capacity. It is determined using clearing prices in Forward Capacity Auctions as described in the Market Rule.

**Cost-of-Service Regulation**: Traditional electric utility regulation under which a utility is allowed to set rates based on the cost of providing service to customers and the right to earn a limited profit.

**Cost, administrative and general (A&G)**: A subset of operation and maintenance expenses which are part of a utility company's cost of service (e.g., salaries, office supplies and expenses, outside services, injuries and damages).

**Cost, fixed**: Costs that (at least in the short run) do not vary with the quantity of utility service.

**Cost, net original**: Original cost less accumulated depreciation. Also called net book cost.

**Cost, operations and maintenance (O&M)**: A broad class of expenses that are part of a utility company's cost of service (e.g., production, storage, terminaling, processing, transmission, distribution, customer accounts, customer service, sales, administration and general). These are non-tax or depreciation costs of providing service.

**Cost, original**: The total cost of utility property at the time it came in service.

**Cost, variable**: Costs varying with a utility's output or a customer's usage; sometimes called user-sensitive rates.

**Cost causation**: The assignment of costs to utility services and customers that caused those costs to be incurred.

**Cost of service**: The total cost of providing utility service to a utility system or a subgroup within the system (the latter referred to as cost allocation).

**Cost-of-service pricing**: A method pricing utility service in strict accordance with the costs that are attributed to it.

**Critical peak pricing (CPP)**: Programs allowing the utility to dramatically increase rates on short notice a predetermined number of times per year.

**Cross price elasticity of demand**: A percentage change in demand for good A that occurs in response to a percentage change in price of good B.

**Curtailability**: The right of a transmission provider to interrupt all or part of a transmission service due to constraints that reduce the capability of the transmission network to provide that transmission. Transmission service is to be curtailed only in cases where system reliability is threatened or emergency conditions exists.

**Customer classification**: The grouping of customers into "homogeneous" classes often based on size, interconnection voltage, quality of service, or corporate status.

**Customer (base) charge**: Also called a flat fee. Costs associated with serving customers, irrespective of the amount of use (e.g. collection, billing, administrative costs).

**Day-ahead energy market**: Markets in certain regional transmission organizations that produce financially binding schedules for the production and consumption of electricity one day before the operating day

**Debt service**: The amount of money necessary to pay interest and principal repayment on debt instruments.

**Debt service coverage**: The ratio of net revenue available for debt service to the average annual debt-service requirements.

**Declining Block Rate**: A rate structure that prices successive blocks of power use at increasingly lower per-unit prices. The more energy a customer uses, the lower the average price. Such rates often reflect fixed costs in the volumetric component of rates such that the average costs of serving a customer declines with higher consumption.

**Deferred Costs**: An expenditure not recognized as a cost of operation of the period where they occurred, but carried forward so as to be written off in future periods.

**Delivered cost**: The cost of fuel, including the invoice price of fuel, transportation charges, taxes, commissions, insurance, and expenses associated with leased or owned equipment used to transport the fuel.

**Delta**: The rate of change of the theoretical price of an option with respect to a 1 unit move in the price of the underlying instrument. Also referred to as a hedge ratio because the value of Delta represents the ratio of options contracts to underlying instrument contracts required to establish a neutral option hedge.

**Demand**: The rate at which electric energy or natural gas is delivered to or by a system at a given instant or averaged over a designated period, usually expressed in kilowatts or megawatts (electric); Mcfs or MMBtus (natural gas).

**Demand bid**: A bid into the power exchange indicating a quantity of energy or an ancillary service that an eligible customer is willing to purchase and, if relevant, the maximum price that the customer is willing to pay.

**Demand Charge**: The Demand Charge portion of rate design is expected to recover the costs associated with the level of demand for the particular service and will be paid even if no service is taken by the customer; a reservation charge. Included in demand charges are capital-related costs and the cost of operation and maintenance of generation, transmission and distribution.

**Demand curve**: A graph related the system demand (if kW) over a period of time (e.g. month, day, or hour).

**Demand Interval**: Time period over which electric billing demand is measured (typically 15, 30 or 60 minute intervals).

**Demand-side management (DSM)**: The planning, implementation, and monitoring of utility activities designed to encourage consumers to modify patterns of electricity usage, including the timing and level of electricity demand. It refers to only energy and load-shape modifying activities that are

undertaken in response to utility-administered programs. It does not refer to energy and load-shaped changes arising from the normal operation of the marketplace or from government-mandated energy-efficiency standards. Demand-Side Management covers the complete range of load-shape objectives, including strategic conservation and load management, as well as strategic load growth.

**Dendrogram**: A graphical representation of how observations are grouped together at various levels of dissimilarity by a cluster analysis. Price elasticity of demand - a measure of the sensitivity of quantity demanded to changes in price.

**Depreciation**: The loss of value of assets, such as buildings and transmission lines, due to age and wear. Among the factors considered in determining depreciation are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the technology, changes in demand, requirements of public authorities and salvage value. Depreciation is charged to utility customers as an annual expense.

**Derating (Generator)**: Reduction of a generating unit's net dependable capacity to a point below the manufacturer's nameplate rating.

**Direct Billing**: A means of recovering costs other than by demand or commodity charge to customers; charges are made directly to identified parties, perhaps regardless of their current status as a customer. Direct billing provides a relatively low risk to the pipeline or utility of non-recovery of costs.

**Direct Current (DC)**: An electric current that flows in one direction with a magnitude that does not vary or that varies only slightly.

**Direct load control**: Refers to program activities that can interrupt consumer load at the time of annual peak load by direct control of the utility system operator by interrupting power supply to individual appliances or equipment on consumer premises.

**Discounted cash flow (DCF)**: A method for calculating the ROE by combining the estimated current yield, determined by utility's dividend price ratio, with a growth component.

**Distribution**: The delivery of electricity to end users via low-voltage electric power lines (typically <69 kV) ; the transfer of electricity from high-voltage lines to lower-voltage lines.

**Dynamic pricing**: Dynamic pricing creates changing prices for electricity which reflect actual wholesale electric market conditions. Examples of dynamic pricing include critical peak pricing and real-time rates.

**Eastern Interconnection**: One of two major AC power grids in North America that spans from central Canada eastward to the Atlantic coast (excluding Qubec), south to Florida, and west to the foot of the Rocky Mountains (excluding most of Texas). The electric utilities within the Eastern Interconnection are electrically tied together during normal system conditions and operate at a synchronized frequency of 60 Hz average. The Eastern Interconnection is tied to the Western Interconnection, the Texas Interconnection, and the Qubec Interconnection, and other systems in Canada through numerous high-voltage DC transmission lines.

**Earnings before interest and taxes**: A measure of financial performance. EBIT is a company's revenues minus its cost of doing business. It is a measure of a company's operating profit before interest on debt and income taxes on earnings are deducted.

**Economic dispatch**: The selection of generating resources to cover load as inexpensively as possible.

**Economic efficiency**: A term that refers to the optimal production and consumption of goods and services, typically occurring when prices reflect marginal costs. They take into account (1) the cost to society from satisfying the demands of a utility's customers and (2) the value that customers place on utility service.

**Economies of scale**: Economies of scale exist when, for a given level of technology and set of prices, larger production facilities have lower unit costs than smaller ones.

**Elasticity (of demand)**: A measure of consumer response to price changes.

**Energy audit**: A program carried out by a utility company in which an auditor inspects a home and suggests ways energy can be saved.

**Energy charge**: The part of the charge for electric service based upon the electric energy (kWh) consumed or billed.

**Energy Information Administration (EIA)**: An independent agency within the U.S. Department of Energy that develops surveys, collects energy data, and does analytical and modeling analyses of energy issues. The Agency must satisfy the requests of Congress, other elements within the Department of Energy, Federal Energy Regulatory Commission, the Executive Branch, its own independent needs, and assist the general public, or other interest groups, without taking a policy position.

**Energy intensity**: Economy-wide energy intensity measures units of energy to units of gross domestic product (GDP). EIA uses energy consumption (measured in Btu) to the constant dollar value of the GDP. Energy intensity can also be measured at the sector level using sector-specific data. For example, energy intensity in the commercial sector is measured by the ratio of energy consumption measured in millions of Btu to square feet of commercial floor space

**Energy management and control system (EMCS)**: An energy conservation feature that uses mini/microcomputers, instrumentation, control equipment, and software to manage a building's use of energy for heating, ventilation, air conditioning, lighting, and/or business-related processes. These systems can also manage fire control, safety, and security. Not included as EMCS are time-clock thermostats.

**Energy reserves**: Estimated quantities of energy sources that are demonstrated to exist with reasonable certainty on the basis of geologic and engineering data (proved reserves) or that can reasonably be expected to exist on the basis of geologic evidence that supports projections from proved reserves (probable/indicated reserves). Knowledge of the location, quantity, and grade of probable/indicated reserves is generally incomplete or much less certain than it is for proved energy reserves.

**Environmental impact statement**: A report that documents the information required to evaluate the environmental impact of a project. It informs decisionmakers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the environment.

**Exchange, electricity**: A type of energy exchange in which one electric utility agrees to supply electricity to another. Electricity received is returned in kind at a later time or is accumulated as an energy balance until the end of a specified period, after which settlement may be made by monetary payment.

**Exempt wholesale generator (EWG)**: Wholesale generators created under the 1992 Energy Policy Act that are exempt from certain financial and legal restrictions stipulated in the Public Utilities Holding Company Act of 1935.

**Expense**: Cash outflows or incurrence of liabilities that result from the ongoing operation of a company.

**Externalities**: Also known as external effects, external economies and diseconomies, spillovers and neighborhood effects. A beneficial externality raises the production or utility of the third party (e.g., a beekeeper helping neighboring farmers). An external diseconomy occurs when the externality-generating activity lowers the production or utility of third parties, such as numerous forms of environmental pollution.

**Extraordinary Items**: An accounting term meaning, significant items of income or loss resulting from events or transactions in the current period that are of unusual nature and infrequent occurrence. Extraordinary storm losses are an example.

**Fair market value**: The price at which a property would be sold by a willing seller to a willing buyer, neither being under compulsion to buy or sell, and both being competent and having reasonable knowledge of the facts.

**Federal Power Act**: Enacted in 1920, and amended in 1935, the Act consists of three parts. The first part incorporated the Federal Water Power Act administered by the former Federal Power Commission, whose activities were confined almost entirely to licensing non-Federal hydroelectric projects. Parts II and III were added with the passage of the Public Utility Act. These parts extended the Act's jurisdiction to include regulating the interstate transmission of electrical energy and rates for its sale as wholesale in interstate commerce. The Federal Energy Regulatory Commission is now charged with the administration of this law.

**FERC**: The Federal Energy Regulatory Commission.

**Financial Accounting Standards Board (FASB)**: An independent board responsible, since 1973, for establishing generally accepted accounting principles. Its official pronouncement are called "Statements of Financial Accounting Standards" and "Interpretations of Financial Accounting Standards."

**Financial transmission rights (FTRs)**: Financial instruments auctioned in certain RTOs. FTRs enable holders to hedge against locational electricity price differences caused by transmission constraints in the day-ahead energy market.

**Firm Power**: Electric energy or capacity which is intended to have assured availability to the customer to meet an agreed upon portion of his load requirements.

**Firm obligation**: A commitment to supply electric energy or to make capacity available at any time specified during the period covered by the commitment.

**Fixed charge**: The charge calculated in rate design to recover all or a portion of the fixed costs of a utility plant, including the generation facility and transmission lines, meters and some taxes.

**Fixed costs**: Costs that do not change or vary with energy consumption or production.

**Fixed operating costs**: Cost, other than that associated with capital investment that does not vary with the operation, such as base maintenance and labor.

**Forward Capacity Auction (FCA)**: The "descending-clock" annual auction of the Forward Capacity Market in certain RTOs during which the price for capacity will be decreased until the quantity of capacity remaining in the auction equals the quantity of capacity needed.

**Forward Capacity Market (FCM)** In certain RTOs, the locational capacity market whereby the RTO will project the needs of the power system three years in advance and then hold an annual auction to purchase power resources to satisfy the region's future needs. The aim of the FCM is to send appropriate price signals to attract new investment and maintain existing resources where and when they are needed, thus ensuring the reliability of the RTO electricity grid.

**Forward reserve**: The 10-minute nonspinning reserves and 30-minute operating reserves the ISO purchases on a forward basis on behalf of market participants.

**Forward Reserve Market (FRM)**: In certain RTOs, a market used for acquiring the generating resources needed to satisfy the requirements for 10-minute nonspinning reserves and 30-minute operating reserves.

**Franchise tax**: Taxes levied in associated with states and localities as a condition of utility operation.

**Frequency**: The rate of oscillation (cycles/second) of the alternating current in an electrical power system, measured in hertz (Hz). In the United States, the rate is 60 Hz.

**Formula rates**: The traditional test year approach to determining a utility's revenue requirement allows for a consideration of all cost increases and decreases. Regulators have designed a method for preserving the integrity of the test year while expediting analysis of a proposed rate increase necessitated by a capital addition. The approach allows the utility to update its rate base with increments of completed capital investment by filing an annual update of the inputs to a rate formula.

**Franchise tax**: Tax imposed on a state or municipal chartered corporation (typically a regulated monopoly) for the right to do business. They are usually levied on a number of value bases, such as capital stock, profits, or property.

**Fuel expense**: These costs include the fuel used in the production of steam or driving another prime mover for the generation of electricity. Other associated expenses including transportation and unloading the shipped fuel and all handling of the fuel up to the point where it enters the first bunker, hopper, bucket, tank, or holder in the boiler-house structure.

**Fuel switching capability**: The short-term capability of a manufacturing establishment to have used substitute energy sources in place of those actually consumed. Capability to use substitute energy sources means that the establishment's combustors (for example, boilers, furnaces, ovens, and blast furnaces) had the machinery or equipment either in place or available for installation so that substitutions could actually have been introduced within 30 days without extensive modifications. Fuel-switching capability does not depend on the relative prices of energy sources; it depends only on the characteristics of the equipment and certain legal constraints.

**Functionalization**: The separation of costs among the operating functions, which traditionally include: production, transmission, distribution, customer accounting, customer service and information, sales, and administrative and general.

**Functional accounts**: Groupings of plant and expense accounts according to the specified part that they play in rendering utility service.

**Fully allocated costs or fully distributed costs**: A costing procedure that spreads the utility's joint and common costs across various services and customer classes.

**Full requirements consumer**: A wholesale consumer without other generating resources whose electric energy seller is the sole source of long-term firm power for the consumer's service area. The terms and conditions of sale are equivalent to the seller's obligations to its own retail service, if any.

**Genco**: The term used for that portion of a functionally disaggregated electric utility's business that involves the production of power which is operated separately from any other power functions which the utility owns or operates.

**Generally accepted accounting principles (GAAP)**: Defined by the FASB as the conventions, rules, and procedures necessary to define accepted accounting practice at a particular time, includes both broad guidelines and relatively detailed practices and procedures.

**Good Will**: An accounting term meaning, a value in excess of a business' tangible assets, caused by merger by superior future earning power determined by the capitalization at an assumed interest rate of those earnings which exceed the "normal" return in that industry. The actual amount of the good will is negotiated by the buyer and seller.

**Greenhouse gases**: Those gases, such as water vapor, carbon dioxide, nitrous oxide, methane, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride, that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.

**Green pricing**: In the case of renewable electricity, green pricing represents a market solution to the various problems associated with regulatory valuation of the nonmarket benefits of renewables. Green pricing programs allow electricity customers to express their willingness to pay for renewable energy development through direct payments on their monthly utility bills. Such programs are optional.

**Gross receipts taxes**: Taxes levied based on utility sales.

**Heat rate**: A measure of generating station thermal efficiency commonly stated as Btu per kilowatthour. Note: Heat rates can be expressed as either gross or net heat rates, depending whether the electricity output is gross or net generation. Heat rates are typically expressed as net heat rates.

**Hedging**: To offset a position with the intent of managing risk. The process of protecting the value of an investment from the risk of loss in case the price fluctuates. Hedging is accomplished by protecting one transaction with another. A long position in an underlying instrument can be hedged or protected with an offsetting short position in a related underlying instrument.

**Hedging contracts**: Contracts which establish future prices and quantities of electricity independent of the short-term market. Derivatives may be used for this purpose.

**Herfindahl-Hirschman Index (HHI)**: A measure of market concentration. It is calculated by squaring the market share of each firm competing in a market, and then summing the resulting numbers. The HHI number can range from close to zero to 10,000. It is frequently used by federal regulators when analyzing mergers and acquisition and has been used by FERC to evaluate market based rate authority requests.

**Hourly Peak**: The maximum demand for energy from a transmission or distribution system in any hourly period of time.

**Hub**: A specific set of predefined nodes for which locational marginal prices are calculated and used to establish a reference price for electric energy purchases and the transfer of day-ahead adjusted load obligations and real-time adjusted load obligations and for the designation of Financial Transmission Rights. The current New England hub consists of 32 nodes.

**Hypothetical capital structures**: Capital structures not based on the actual balance of debt and equity. This regulatory treatment usually creates an equity-to-debt ratio higher than the actual ratio for purposes of calculating the rate of return.

**Impaired capital**: A negative surplus account due to the corporation's capital stock has been reduced below what it was a t the time the stock was issued, usually recognized at the time of sale of an asset.

**Impairment, asset impairment**: Impairment or asset impairment occurs when, due to changed circumstances, the previously allowed recovery of costs of a regulatory asset through rates is eliminated or removed by action of a regulatory body.

**Inclining block rates**: Rates that increase at higher levels of electricity consumption.

**Income (or budget) statement**: A statement of revenues and expenditures, over a period of time.

**Incremental cost**: The change in total cost from a change in service provided, such as the cost of an additional customer, kW of demand, or kWh consumed.

**Increment offer**: A financial offer to sell electric energy at a specified location in the day-ahead energy market; virtual supply not associated with a physical generator. In speaking, sometimes referred to as an "inc" (pronounced "ink".)

**Independent power facility**: A facility, or portion thereof, that is not in a utility's rate base. Power is usually sold to utilities, though in some cases directly to end-use customers. These facilities or their owners are often referred to as independent power producers.

**Interest coverage ratio**: The number of times that fixed interest charges were earned. It indicates the margin of safety of interest on fixed debt. The times-interest-earned ratio is calculated using net income before and after income taxes; and the credits of interest charged to construction being treated as other income. The interest charges include interest on long-term debt, interest on debt of associated companies, and other interest expenses.

**Inframarginal revenues**: The revenues earned by generators through the electric energy market that are in excess of the generators' short-run variable costs for fuel and other operating expenses, which assists in recovering fixed costs, the largest portion being capital costs.

**Integrated Resource Planning (IRP)**: A public planning process and framework within which the costs and benefits of both demand and supply side resources are evaluated to develop the least total cost mix of utility resource options. In many states, IRP includes a means for considering environmental damages caused by electricity supply/transmission and identifying cost effective energy efficiency and renewable energy alternatives. IRP has become a formal process prescribed by law in some states and under some provisions of the Clean Air Act Amendments of 1992.

**Intermittent electric generator or intermittent resource**: An electric generating plant with output controlled by the natural variability of the energy resource rather than dispatched based on system requirements. Intermittent output usually results from the direct, non-stored conversion of naturally occurring energy fluxes such as solar energy, wind energy, or the energy of free-flowing rivers (that is, run-of-river hydroelectricity).

**Interruptible power**: Power made available under agreements that permit curtailment or cessation of delivery by the supplier. Customers typically receive a discount for agreeing to for their power to be interruptible.

**Inverted block rate design**: Sometimes referred to as inclining rates, graduated rates, baseline rates, or block rates. A rate design for a customer class through which the unit charge for electricity increases as usage increases.

**Inventories**: Raw materials, stocks, capital goods, or finished products kept by firms in order to allow them to meet production requirements or fluctuations in sales.

**Investor-owned utility (IOU)**: A privately-owned electric utility whose stock is publicly traded. It is rate regulated and authorized to achieve an allowed rate of return.

**Joint and common costs**: Costs incurred by a utility in producing multiple services but cannot be directly assigned to any individual service or customer class; these costs must be assigned according to some rule or formula.

**Joint Use Facilities**: A facility that is used in common by two or more entities or power generating units. Also know as Common Use Facilities.

**Levelized Cost, Life-Cycle Cost**: The present value of the cost of a resource, including capital, financing and operating costs, converted into a stream of equal annual payments.

**Load Center**: A geographical area where large amounts of power are drawn by end-users.

**Load control program**: A program in which the utility company offers a lower rate in return for having permission to turn off the air conditioner or water heater for short periods of time by remote control. This control allows the utility to reduce peak demand. Such programs fall under the broader heading of demand-side management.

**Load curve**: The relationship of power supplied to the time of occurrence. Illustrates the varying magnitude of the load during the period covered. The period is often a day, month, or year.

**Load factor**: The ratio of average load to peak load during a specific period of time, expressed as a percent. The load factor indicates to what degree energy has been consumed compared to maximum demand or the utilization of units relative to total system capability. An electric system's load factor shows the variability in all customers' demands.

**Load following**: Regulation of the power output of electric generators within a prescribed area in response to changes in system frequency, tieline loading, or the relation of these to each other, so as to maintain the scheduled system frequency and/or established interchange with other areas within predetermined limits. Load following is a type of ancillary service.

**Local distribution company (LDC)**: A legal entity engaged primarily in the retail sale and/or delivery of natural gas through a distribution system that includes mainlines (that is, pipelines designed to carry large volumes of gas, usually located under roads or other major right-of-ways) and laterals (that is, pipelines of smaller diameter that connect the end user to the mainline). Since the restructuring of the gas industry, the sale of gas and/or delivery arrangements may be handled by other agents, such as producers, brokers, and marketers that are referred to as "non-LDC."

**Load pockets**: Areas of the system where the transmission capability is not adequate to import capacity from other parts of the system and demand is met by relying on local generation.

**Load-Serving Entity (LSE)**: Secures energy and transmission service (and related Interconnected Operations Services) to serve the electrical demand and energy requirements of its end-use customers. In restructured states, such entities are not necessarily the utilities that own transmission and distribution assets.

**Load shedding**: Intentional action by a utility that results in the reduction of more than 100 megawatts (MW) of firm customer load for reasons of maintaining the continuity of service of the reporting entity's bulk electric power supply system. The routine use of load control equipment that reduces firm customer load is not considered to be a reportable action. Examples would be rolling brownouts conducted to preserve reliability in extreme operating conditions.

**Load Shifting**: Involves moving load from on-peak to off-peak periods. Applications include use of storage water heating, storage space heating, cool storage, and customer load shifts to take advantage of time-of-use or other special rates.

**Locational marginal price (LMP)**: Used in certain organized markets, the LMP is the cost to serve the next MW of load at a specific location, using the lowest production cost of all available generation, while observing all transmission limits.

**Long Run Marginal Costs**: The long-run costs of the next unit of electricity produced. This includes the cost of future infrastructure development.

**Long-term debt**: Debt that is payable more than one year from the date it was incurred.

**Loss (losses)**: The energy (kilowatt-hours) and power (kilowatts) lost or unaccounted for in the operation of an electric system. Losses occur primarily as energy transformations from kilowatt-hours to waste heat in electric conductors and apparatus.

**Market clearing price**: The price at which supply and demand are in balance with respect to a particular commodity at a particular time. This price can be established through specific auctions, as used in organized wholesale markets, or through ongoing markets such as NYMEX and the NYSE.

**Market power**: The ability of a market participant with a large market share to significantly control or affect price by withholding production from the market, limiting service availability, or reducing purchases.

**Merit order**: The order that an RTO designates generators to operate based on the lowest to highest cleared offers, until the demand for electric energy is met.

**Minimum charge**: A rate schedule provision stating that a customer's bill cannot fall below a specified level.

**Mothball**: To place a generating facility in an inactive state so that it can neither be brought into operation immediately nor counted towards reserve margin.

**Must run units**: A specific generating unit that has been designated by the system operator to be on line or on the grid to insure the flow of electricity. This must run unit is outside of economic dispatch and may or may not be a system's most efficient unit. A unit may be designated as must run for operating reasons that may include system reliability, voltage control or system stability.

**Nameplate Capacity**: The maximum rated output of a generator under specific conditions designated by the manufacturer. Generator nameplate capacity is usually indicated in units of kilovolt-amperes (kVA) and in kilowatts (kW) on a nameplate physically attached to the generator.

**Native load customers**: The wholesale and retail customers on whose behalf the Transmission Provider, by statute, franchise, regulatory requirements, or contract, has undertaken an obligation to construct and operate the Transmission Provider's system to meet the reliable electric needs of such customers.

**Natural Monopoly**: An economic term connoting a situation where one firm can produce a given level of output at a lower total cost than can any combination of multiple firms. Natural monopolies occur in industries, which exhibit decreasing average long run costs due to size (economies of scale). According to economic theory, a public monopoly governed by regulation is justified when an industry exhibits natural monopoly characteristics.

**The North American Electric Reliability Corporation (NERC)**: Organization who's mission is to ensure the reliability of the bulk power system in North America. They develop and enforce reliability standards; assess reliability annually via 10-year and seasonal forecasts; monitor the bulk power system; evaluate users, owners, and operators for preparedness; and educate, train, and certify industry personnel. NERC is a self-regulatory organization, subject to oversight by the U.S. Federal Energy Regulatory Commission and governmental authorities in Canada

**Net income**: Operating income plus other income and extraordinary income less operating expenses, taxes, interest charges, other deductions, and extraordinary deductions.

**Network**: A system of interconnected circuit components. In power system usage, a system of transmission (or distribution) lines interconnected and operated so that any principal point has multiple sources of power.

**Network Resource**: In certain organized markets, any designated generating resource owned or purchased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource or any portion that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

**Network Upgrade**: Modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System.

**Nominal price**: The price paid for a product or service at the time of the transaction. Nominal prices are those that have not been adjusted to remove the effect of changes in the purchasing power of the dollar; they reflect buying power in the year in which the transaction occurred.

**Non-coincident Demand (NCD) or Non-coincident Peak Load**: A customer's maximum energy demand during any stated period. Customers who use large quantities of electricity may pay a monthly demand charge based on their maximum electric demand during each month. This maximum demand in the electric industry can also be called a customer's monthly non-coincident demand. This demand can establish demand charges in rates, though is typically not used for cost allocation purposes.

**Non-firm electricity transaction**: These transactions are typically for short periods and subject to curtailment or cessation of delivery by the supplier or purchaser in accordance with prior agreements or under specified conditions. Non-firm sales are sometimes called economy or interruptible sales.

**Non-operating expenses**: Expenses other than operating expenses (e.g., debt service, working capital, cash funding of capital projects).

**Non-operating revenues**: Sometimes referred to as other operating revenues, there are revenues that are incidental to a utility's revenues received for primary service activities (e.g., investment income, provision for bad debt, land leases, rental of electric towers for telecommunications.) These revenues are a credit against the revenue requirement.

**Non-requirements consumer**: A wholesale consumer (unlike a full or partial requirements consumer) that purchases economic or coordination power to supplement their own or another system's energy needs.

**Non-spinning reserve**: Generating units that are not connected to the system but are capable of coming on line within a specified time, or interruptible load that can be removed from the system in a specified time.

**Normalization**: An adjustment of costs and revenues to conform to a typical year. Separate from tax normalization used to calculate accumulated deferred income taxes.

**Notice of Proposed Rule Making (NOPR)**: A draft generic policy change promulgated by regulatory agencies

**Obligation to serve**: The concept embodied in the statutes of most states governing the retail or end-use provision of electric service where a utility is required to serve all customers who request service at non-discriminatory prices. This obligation is rendered in return for granting of a geographic retail service monopoly.

**Open transmission access**: Enables all participants in the wholesale market equal access to transmission service, as long as capacity is available, with the objective of creating a more competitive wholesale power market.

**Operating expenses**: Expenses related to maintaining day-to-day utility functions, including operation and maintenance expenses.

**Operating revenues**: Revenues directly related to the utility's primary service activities.

**Ordinance**: A document listing the terms and conditions, including a schedule of prices, under which utility services will be provided.

**Other operating revenue**: Operating revenues received from sources other than electricity sales. These include forfeited discounts, miscellaneous service revenues, sales of water and water power, rent from electric property, interdepartmental rents, and other revenues. In some cases, all such revenues are credited to customers while in other cases the utility and ratepayers split such revenues.

**Out-of-merit cost**: A payment to a generator for operating when it is more expensive for it to do so than the price-setting generator.

**Own price elasticity of demand**: A percentage change in quantity demanded in response to a percentage change in price of the same good or service.

**Parallel Flow**: Electricity flow on a utility's transmission system resulting from electricity flows scheduled on any other system. Electricity flows on parallel paths in amounts inversely proportional to each path's impedance. Due to parallel flows, point-to-point transmission sales between two utilities could lead to increased transmission congestion for a third utility.

**Partial requirements consumer**: A wholesale consumer with generating resources insufficient to carry all its load and whose energy seller is a long-term firm power source supplemental to the

consumer's own generation or energy received from others. The terms and conditions of sale are similar to those for a full requirements consumer.

**Pay-as-you-go ("PAYG")**: Refers to financing a capital project with existing cash flows, thus avoiding debt obligations..

**Payback period**: The amount of time required fro the net revenues of an investment to return its costs. This metric is often employed for energy efficiency measures.

**Payroll taxes**: Taxes, such as FICA, Social Security taxes, and federal and local unemployment taxes, that are levied on the basis of employee salaries.

**Peak period**: Any period of time when the system operates at maximum capacity.

**Peak shaving**: Employment of supplemental power supply, demand side resources, or rate designs to reduce peak demand.

**Plant held for future use**: Plant held in reserve for use in the future. Such plant is usually included in rate base.

**Point of delivery**: A point on the electric system where a power supplier or wheeling entity delivers electricity to the recipient. This point could include an interconnection with another system or a substation where the transmission provider's transmission and distribution systems connect to another system.

**Point of receipt**: A point on the electrical system where an entity receives electricity from a power supplier of wheeling entity.

**Post-retirement benefits other than pensions (PBOP)**: Sometimes called other post employment benefits (OPEBs). These include healthcare, life insurance, and other non-pension benefits.

**Power factor**: The fraction of power actually used by a customer's electrical equipment compared to the total apparent power supplied, usually expressed as a percentage. Power factors apply only to alternating current circuits; direct current circuits always exhibit a power factor of 100 percent. A power factor indicates how far a customer's electrical equipment causes the electric current delivered at the customer's site to be out of phase with the voltage.

**Power factor adjustment**: A calculation or charge on industrial or commercial customers' bills reflecting an adjustment in billing demand based on customer's actual metered power factor. If the power factor stays within a specified range, there is no adjustment.

**Power transfer distribution factor**: A measure of the responsiveness or change in electric loading on system facilities due to a change in electric power transfer from one area to another, expressed in percent (up to 100%) of the change in power transfer. The PTDF applies only for the pre-contingency configurations of the system under study.

**Prepayment**: Expenditure for future benefit, which is recorded on a balance sheet asset account called a deferred charge, then written off in a period when the benefit is enjoyed. An example is prepaid rent.

**Present value**: The present value of a payment (PMT) received n years hence equals: PMT / (1+i)^n, where i equals the interest rate.

**Price cap**: A method of setting a utility distribution company's rates whereby regulators establish a maximum allowable price level. Flexibility in individual pricing is allowed in some cases, and where efficiency gains can be encouraged and captured by the company.

**Prudence Review**: The process by which a regulator determines the prudence of utility resource decisions goes to the heart of the goal of aligning private and public interests. For utility-built resources, utilities often seek this approval many years prior to the resource being determined "used and useful," and available for service. For long-term purchased power contracts, utilities seek a prudence review relatively contemporaneously with availability of the resource, assuming the facilities for the purchase are in operation. If the power purchase is for a project not yet completed, utilities may seek prior approval of the purchase agreement as they would for a utility-built plant.

**Purchased power adjustment**: A clause in a rate schedule that provides for adjustments to the bill when energy from another electric system is acquired and it varies from a specified unit base amount.

Public Utility Regulatory Policies Act of 1978 (PURPA): This statute requires States to implement utility conservation programs and create special markets for co-generators and small producers who meet certain standards, including the requirement that States set the prices and quantities of power the utilities must buy from such facilities.

**Qualifying Facility (QF)**: A cogeneration facility or small power production facility which 1) is a qualifying facility under PURPA and FERC's Regulations, 2) is permitted to sell electric energy and capacity to the host utility at the host utility's avoided cost rate, 3) is not owned by an entity primarily engaged in the sale or generation of electric power, and 4) in the case of cogeneration facilities, and small power production facilities under 30 megawatts in size (80 megawatts for geothermal generators), is largely exempt from the provisions of the Federal Power Act and the Public Utility Holding Company Act.

**Radial**: A transmission or distribution system that is not networked and does not provide multiple parallel flow paths. Radials often connect remote generation to the rest of the transmission grid.

**Rate base**: The value, specified by a regulatory authority, upon which a utility (usually an investor owned utility) is permitted to earn a specified rate of return. The rate base generally represents the value of property used by the utility in providing service and may be calculated by any one or a combination of the following accounting methods: fair value, prudent investment, reproduction cost or original cost. The rate base may include a working capital allowance covering such elements as cash, working capital, materials and supplies, prepayments, minimum bank balances and tax offsets. The rate base may be adjusted by deductions for accumulated provision for depreciation, contributions in aid of construction, accumulated deferred income taxes and accumulated deferred investment tax credits.

**Rate case**: A proceeding, usually before a regulatory commission, involving the rates to be charged for a public utility service.

**Rate design**: The design and organization of billing charges by customer class to distribute the costs allocated to the different classes.

**Rate of return**: The overall rate of return, pre-tax, return, weighting the cost of debt and the return on equity with the capital structure.

**Real-time load obligation (RTLO)**: For each hour, the requirement that each market participant (in organized wholesale markets) has for providing electric energy (megawatt-hours) at each node, external node, load zone, or the Hub equal to the megawatt-hours of load, including external transaction sales and internal bilateral transactions that transfer these obligations.

**Real-time pricing**: Rates that adjust in real-time based on wholesale electricity costs.
**Real-time reserve market**: An ISO market where resources capable of providing 10-minute and 30-minute reserves are designated in real time, for which they are paid the reserve market clearing price.
**Reactive power**: The portion of electricity that establishes and sustains the electric and magnetic fields of alternating-current equipment. Reactive power must be supplied to most types of magnetic equipment, such as motors and transformers. Reactive power is provided by generators, synchronous condensers, or electrostatic equipment such as capacitors and directly influences electric system voltage. It is a derived value equal to the vector difference between the apparent power and the real power. It is usually expressed as kilovolt-amperes reactive (kVAR) or megavolt-ampere reactive (MVAR). Reactive power is an ancillary service, sold through some RTO markets.
**Rebate program**: A utility company-sponsored conservation program whereby the utility funds or provides a bill credit equal to a portion of the purchase price cost when a more energy-efficient refrigerator, water heater, air conditioner, or other appliance is purchased.
**Regional Transmission Organization (RTO)**: An independent regional transmission operator and service provider established by FERC and that meets FERC's RTO criteria, including those related to independence and market size. The RTO controls and manages the high-voltage flow of electricity over an area generally larger than the typical power company's service territory for its distribution system. Most RTOs also operate day-ahead, real-time, ancillary services, and capacity markets and conduct system planning. RTOs include PJM, ISO-New England, the Midwest Independent System Operator, the Southwest Power Pool, the New York ISO, and the California ISO (CAISO).
**Regulation**: The capability of specially equipped generating resources to increase or decrease their generation output every four seconds in response to signals they receive from the ISO to control slight changes on the system. This capability is necessary to balance supply levels with the second-to-second variations in demand.
**Regulatory Asset**: A promise of collection of a cost at a future point. Regulatory assets are added to rate base.
**Regulatory Lag**: The laps of time between a petition for a rate increase and the formal action by a regulatory body.
**Regulatory Liability**: A credit against rate base due usually to a timing difference between when costs, including depreciation, are incurred and recovered through rates.
**Reliability adequacy**: A measure of the reliability of the bulk power system to meet demand and the sufficiency of the system's generating resources.
**Reliability Agreement**: - An agreement made between the ISO and a generation owner whereby an approved generator continues to operate, even when it is not economical to do so, to ensure system reliability, and whereby the generation owner recovers the fixed costs for operation; sometimes termed Reliability Must-Run (RMR) Agreement.
**Reserve capacity/ Reserve margin**: The amount of capacity a system can supply greater than what is required to meet demand. Typically 15-20 percent reserve capacity is needed for good reliability.
**Restructuring**: The process of replacing a monopoly system of electric utilities with competing sellers, allowing individual retail customers to choose their electricity supplier but still receive delivery over the power lines of the local utility. It includes the reconfiguration of the vertically-integrated electric utility.

**Resource adequacy**: The ability of a bulk electric power system to supply the aggregate electrical demand and energy requirements (i.e., the electrical loads of all the customers at all times plus external transaction sales to other control areas), taking into account scheduled and reasonably expected unscheduled outages of system devices (e.g., generators, transformers, circuits, circuit breakers, or bus sections). Annual expected system resource adequacy is calculated in terms of system loss-of-load expectation, accounting for load forecast uncertainty caused by weather and resource availability and reflecting assumed forced and scheduled outages.

**Retail wheeling**: The process of moving electric power from a point of generation across third-party-owned transmission and distribution systems to a retail customer. Owners of power must pay transmission fees to system that they wheel through in most cases.

**Retirement**: The permanent removal from service of a facility, which cannot return to service without major refurbishment or relicensing.

**Return on equity**: Compensation for the investment of capital; i.e., earnings. Regulated public utilities statutorily entitled to charge rates that permit them to earn a fair return on their equity invested.

**Revenue requirement**: the annual revenues that the utility is entitled to collect (as modified by automatic adjustment clauses). it is the sum of operation and maintenance expenses, depreciation, taxes, and a return on rate base.

**Run-of-river hydro**: A hydroelectric plant which depends chiefly on the flow of a stream as it occurs for generation, as opposed to a storage project, which has space available to store water from one season to another. Some run-of-river projects have a limited storage capacity (pondage) which permits them to regulate streamflow on a daily or weekly basis.

**Revenue requirement**: The sum total of the revenues required to pay all operating and other costs of providing service.

**Seasonal rates**: Rates that vary by season Time-of-use rates: Rates that vary by time of day and day of the week.

**Securitization**: A rock-solid, often statute-based, government guarantee of cost recovery, which is intended to reduce financing costs by eliminating the risk of non-recovery.

**Self-Generation**: A generation facility dedicated to serving a particular retail customer, usually located on the customer's premises. The facility may either be owned directly by the retail customer or owned by a third party with a contractual arrangement to provide electricity to meet some or all of the customer's load.

**Sensitivity analysis**: A procedure that determines how sensitive the analysis's outcomes are to changes in assumptions. If a small change in the assumption results in relatively large changes in the outcomes, the outcomes are said to be sensitive to that assumption.

**Shaping**: The scheduling and operation of generating resources to meet changing load levels. Load shaping on a hydroelectric system usually involves the adjustment of water releases from reservoirs so that generation and load are continuously in balance. Natural gas plants can also adjust to meet load. Intermittent generation, such as wind and solar, require shaping by other generation resources.

**Short Run Marginal Cost**: All variable production costs including fuel and operations and maintenance costs.

**Short-term debt**: Debt that is payable less than one year from the date it was incurred.

**Spinning Reserve:** Unused capacity available from units connected to and synchronized with the grid to serve additional demand. The spinning reserve must be under automatic governor control to instantly respond to system requirements.

**Split-the-Savings**: A method of pricing where the buyer and the seller agree to divide the difference between the seller's costs of producing power and the buyer's otherwise available purchase price of power. Such arrangements can also take place between utilities and ratepayers for energy efficiency programs.

**Spot Market**: Commodity transactions in which the transaction commencement is near term (e.g., within 10 days) and the contract duration is relatively short (e.g., 30 days). Such markets include those run by RTOs and ISOs as well as over-the-counter markets like NYMEX.

**Spot Purchases**: A short-term single shipment sale of a commodity, including electricity or gas, purchased for delivery within one year, generally on an interruptible or best efforts basis. Spot purchases are often made to fulfill a certain portion of energy requirements, to meet unanticipated energy needs, or to take advantage of low prices.

**Spread**: The difference between two prices, amounts or numbers such as the bid/ask prices in a commodity trading. In the futures and options markets a spread is the simultaneous purchase and sale of two different contracts in the expectation of a favorable change in their relative prices.

**Standard Deviation**: A measure of the volatility of an underlying instrument. It is a statistical quantity that measures the magnitude of the daily price change of that asset.

**Standards of Conduct**: Requirements under FERC's marketing affiliate rule, which prohibit discrimination in favor of the pipeline's own marketing affiliates and which require pipelines to submit reports detailing compliance with the rules.

**Standby Service**: Support service that is available, as needed, to supplement a consumer, a utility system or to another utility to replace normally scheduled power that becomes unavailable.

**Straight Fixed Variable (SFV) Rate Design**: A rate design method applied by the FERC on gas pipelines which allocates all fixed costs to the demand component and all variable costs to the commodity, or usage component.

**Stranded costs**: Fixed or sunk costs to be paid by the incumbents utility. Such costs become stranded when they cannot be recovered through the rates after the introduction of competition. An example would be the difference between the non-depreciated value of a generator and the book remaining depreciation when the utility sells the plant as part of restructuring. In some states, utilities could subsequently recover such costs from ratepayers despite the asset's sale.

**Substitute good**: A good which is to some extent interchangeable with another good (example, petroleum and natural gas). When the price of one good increases, the demand for another good increases.

**Subsidization**: The imposition of costs on one customer or class of customers that are attributable to services provided to other customers or classes of customers, who therefore pay less than the appropriate actual costs for the services they receive.

**Substation**: Facility equipment that switches, changes or regulates electric voltage. An electric power station which serves as a control and transfer point on an electrical transmission system. Substations

route and control electrical power flow, transform voltage levels, and serve as delivery points to industrial customers.

**Sunk Cost**: In economics, a sunk cost is a cost that has already been incurred, and therefore cannot be avoided by any strategy going forward.

**Supplemental Regulation Service**: A method of providing regulation service in which the control area providing the regulation service receives a signal representing all or a portion of the other control area's ACE.

**Supply-Side**: Activities conducted on the utility's side of the customer meter. Activities designed to supply electric power to customers, rather than meeting load though energy efficiency measures or on site generation on the customer side of the meter.

**Take-or-pay clause**: A contract provision obligating the buyer to pay for a certain minimum quantity of product, whether or not the buyer actually takes that quantity during the stated period. Utilities often have take-or-pay clauses with fuel suppliers.

**Test year**: A specific period chosen to demonstrate a utility's need for a rate increase. Data for a rate case or hearing comes from this period. It may or may not include adjustments to reflect known and measurable changes in operating revenues, expenses and rate base. A test year can be either historical or projected.

**Tie line**: A circuit connecting two or more Control Areas or systems of an electric system.

**Tiered Rates**: A rate design which divides customer use into different tiers, or blocks, with different prices charged for each. Inclining block rates, seasonal rates, and time-of-use rates contain such tiers.

**Total Transfer Capability (TTC)**: TTC is the capacity of a transmission path taking into account ATC and all of the complex transmission network operating factors.

**Tracker**: A rate schedule provision giving the utility company the ability to change its rates at different points in time to recognize changes in specific cost of service items without the usual suspension period of a rate filing.

**Transmission Loss**: The power lost in transmission between one point and another. It is measured as the difference between the net power passing the first point and the net power passing the second point.

**Transmission Only Company (TransCo)**: The term for that portion of a functionally disaggregated electric utility's business that involves the bulk transmission of power that is operated separately from any other power functions the utility might own or operate. Transcos can also be wholly unaffiliated with any other utility business.

**Undergrounding**: The act or program for placing the overhead transmission or distribution system underground.

**Used and useful**: A regulatory concept for determining whether utility plant is eligible for inclusion in a utility's rate base. Often defined as when plant is energized.

**Utility plant**: All equipment used fro the generation, transmission, and distribution of electricity, or an account which record is kept of this equipment. This includes plant in service, purchased or sold, in process of reclassification, leased to others, held for future use, and under construction, and acquisition adjustments and adjustment accounts, without deduction of accumulated provision for depreciation and amortization.

**Variable operating costs**: Those expenses that vary with the amount of business done or volume of goods produced. For most utilities these costs include fuel and certain operations and maintenance costs.

**Vertical Integration**: An arrangement whereby the same company owns all the different aspects of making, selling and delivering a product or service. In the electric industry, it refers to the historically common arrangement whereby a utility would own its own generating plants, transmission system and distribution lines to provide all aspects of electric service.

**Volatility**: A measurement of the price fluctuation of an underlying instrument that takes place over a certain period of time. Utilities must manage the volatility in the organized wholesale markets.

**Volt**: The unit of measurement of electromotive force. It is equivalent to the force required to produce a current of one ampere through a resistance of one ohm. The unit of measure for electrical potential. Generally measured in kilovolts or kV. Typical transmission level voltages are 115 kV, 230 kV and 500 kV.

**Voltage Control**: The control of transmission voltage adjustments in generator reactive output and transformer taps, and by switching capacitors and inductors on the transmission and distribution systems.

**Voltage Support**: A small remote generator located on a transmission system to provide voltage within tolerance limits to the customer. If the voltage delivered is outside of the tolerance levels, appliances will not run efficiently.

**Wholesale electric power market**: The purchase and sale of electricity from generators to resellers (retailers), along with the ancillary services needed to maintain reliability and power quality at the transmission level. RTOs operate such markets in much of the country.

**Volumetric Rate**: A rate or charge for a commodity or service that is calculated and charged on the basis of the amount or volume actually received by the purchaser.

**Weatherization**: A process or program for increasing a building's thermal efficiency. Examples include caulking of windows, weather stripping, and adding insulation to the wall, ceilings, and floors.

**Wholesale sales**: Energy supplied to other electric utilities, cooperatives, municipals, and Federal and State electric agencies for resale to ultimate consumers

**Wholesale transmission services**: The transmission of electric energy sold, or to be sold, in the wholesale electric power market. FERC has jurisdiction over such services.

**Wires charge**: A broad term referring to fees levied on power suppliers or their customers for the use of the transmission or distribution wires. The fixed or demand component of bills often includes these charges where they are not explicitly stated on electric bills.

**Working capital**: Amount of cash or other liquid assets that a utility must have on hand to meet the current costs of operations until such time as it is reimbursed by its customers. Working Capital includes fuel stock the utility must keep on hand in the event of a shortage or emergency, materials and supplies, prepayments, and cash working capital, which covers ongoing costs.**

# EXHIBIT C

# Model State Protocols for Critical Infrastructure Protection Cost Recovery

Prepared for the
NARUC Ad Hoc Committee on Critical Infrastructure

by

Raymond Lawton, Ph.D.
John D. Wilhelm
Robert E. Burns, Esq.
Scott Potter
Joe McGarvey

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*The views and opinions expressed herein are not necessarily those of the National Regulatory Research Institute (NRRI), the National Association of Regulatory Utility Commissioners (NARUC), the U.S. Department of Energy (DOE), or any particular state or federal regulatory commission.*

# FOREWORD

The cost recovery of expenses associated with protecting critical electric, natural gas, telecommunications and water infrastructures is one of the most important issues to be addressed by the NARUC Ad Hoc Committee on Critical Infrastructure. This report synthesizes the work of the Committee to date and identifies cost recovery protocols successfully used by State regulatory commissions to address infrastructure security cost recovery requests. These cost recovery protocols can serve as models for States and will provide an essential means to help ensure that our Nation's critical utility infrastructure is protected. The impressive amount of effort by State commissions shows a bedrock commitment for ensuring that utility infrastructure protection efforts are adequately funded in order that our Nation's consumers can continue to receive an uninterrupted supply of utility services.

Much of the Nation's critical infrastructure is subject to regulation through an administrative hearing process that is carried out through State public utility commissioners. The regulatory processes for recovering investment costs in utility infrastructures in many States are handled through rate of return regulation and other cost recovery mechanisms. This paper examines the manner in which investments to protect critical utility infrastructures can be effectively accommodated within these existing regulatory frameworks. The first part of the report provides an overview summary, and the subsequent parts provide a more detailed discussion.

I gratefully acknowledge the assistance provided by the U.S. Department of Energy's Office of Energy Assurance to support this important effort.

The Honorable Connie O. Hughes, Chair
NARUC Ad Hoc Critical Infrastructure Committee and
Commissioner, New Jersey Board of Public Utilities

# EXECUTIVE SUMMARY

State regulators and energy utilities have focused a considerable amount of attention on protecting the critical infrastructure of America's electric and natural gas utilities. One example of this is the cost recovery work done by the NARUC Ad Hoc Committee on Critical Infrastructure. This report draws upon the extensive work of the Committee, most notably its two cost recovery workshops, and several critical infrastructure surveys of state commissions conducted by NRRI. The objective of the report is to provide state regulators with information about the variety of workable cost recovery protocols that exist for energy utilities.

This report to the Ad Hoc Committee on Critical Infrastructure identifies cost recovery protocols used by state commissions. ***In some states, new legislation or regulatory proceedings were developed to deal with cost recovery.*** In most instances, existing regulatory cost recovery mechanisms were used. Many of the cost recovery protocols involve some form of a rate case proceeding. In most states, commissions have not received a security-specific cost recovery request. It may be that incremental security costs did not reach a materiality threshold in some states, or that security costs were not discussed explicitly in rate case filings. Of the states that have directly addressed security costs, all have done so in a rate case context. Generally, either a separate protocol path was followed that was then paired with a rate case, or the whole cost recovery request was entirely made in a specific general rate case proceeding. ***In all instances, the rate case requirement that a recoverable cost be prudent, or just and reasonable, was a central concern.***

The different protocols are specific attempts to smooth out any bumps on the road to the recovery of prudently incurred costs. Some cost recovery examples include:

- **A Kansas Act providing for confidentiality of the amount requested and allowed.** (See 2003 Kansas HB 2374, codified as Kansas Statute Nos. 66-1234, 66-1235, and 66-1236.)

- **The Florida Commission's use of two adjustment clauses.** (See Florida Public Service Commission, Order No. PSC-02-1761-FOF-El and Florida Public Service Commission, Order No. PSC-01-2516-FOF-El.)

- **A Michigan Act allowing use of deferral accounts and a security recovery factor.** (See Michigan Compiled Law, Chapter 460, Act 3 of 1939, Section 460.10d.)

- **The New Jersey Board's establishing an ongoing dialogue.**

- **The Oklahoma Corporation Commission's use of a Notice of Inquiry process.** (See Oklahoma Corporation Commission, Case No. PUD 200300624.)

OUR SURVEY OF THE STATES FOUND THAT:

- **State regulators are committed to allowing cost recovery of critical infrastructure costs that are prudently incurred.**
- **Regulators generally felt that they did not have to reinvent the wheel; finding that their existing inventory of cost recovery protocols and cost recovery mechanisms is sufficient for energy utilities.**
- **In restructured states, state legislatures have sometimes acted to reaffirm that post 9/11 security costs are eligible for recovery, as long as the costs are reasonable or prudently incurred.**
- **Insurance should be a part of a utility's cost recovery efforts.**

# CONTENTS

FOREWORD ..... iii
EXECUTIVE SUMMARY ..... iv
PART I - INTRODUCTION AND OVERVIEW ..... 1
1. COST RECOVERY ACTIVITIES, PROTOCOLS AND MECHANISMS ..... 3
2. PRE-FILING ACTIVITIES AND ADMINISTRATIVE PROCESS PROTOCOL ..... 5
3. REGULATORY PROTOCOLS ..... 6
4. COST RECOVERY MECHANISMS AND OPTIONS ..... 7
5. COST RECOVERY CONSIDERATIONS ..... 10
6. OTHER IMPLICATIONS ..... 11

PART II - DETAILED DISCUSSION
7. SECURITY RELATED COST RECOVERY – DETAILED DISCUSSION ..... 13
8. PRE-FILING ACTIVITIES AND INFORMAL DISCUSSIONS ..... 14
9. ADMINISTRATIVE PROCESS PROTOCOL ..... 16
Notices and Filings ..... 16
Administrative Reviews ..... 16
10. TRADITIONAL REGULATORY PROTOCOL ..... 18
Special Considerations and Treatment ..... 19
General Rate Case Considerations ..... 20
Security Considerations – Information Handling ..... 26
11. RESTRUCTURED REGULATORY PROTOCOL ..... 28
Special Considerations and Treatment ..... 29
No Recovery Allowed ..... 29
Rate Case for Distribution ..... 30
12. COST RECOVERY MECHANISMS AND CASE STUDIES ..... 31
Base Rate Changes to Tariffs ..... 32
Adjustment Clauses ..... 33
Closed Proceedings ..... 35
Deferral (Balancing) Accounts ..... 36
Security Recovery Factor Changes ..... 37
Other Cost Recovery Mechanisms ..... 38
13. SUMMARY ..... 39

APPENDICES
A. FERC ORDER 630 AND THE PROTECTION OF CRITICAL INFRASTRUCTURE INFORMATION ..... 40
B. RECOVERING CRITICAL INFRASTRUCTURE PROTECTION COSTS THROUGH ADJUSTMENT CLAUSES ..... 42
C. NCSL – PAYING FOR ENERGY SECURITY ..... 43

ENDNOTES ..... 45

# LIST OF FIGURES AND TABLES

## Figure

1. Security-related Cost Recovery Protocols and Mechanisms .....4
2. Who is Driving Security-related Investments? .....4
3. Are Utilities Filing for Security-related Cost Recovery? .....5
4. Map of state electricity markets .....6
5. Detailed Security-related Cost Recovery Protocols Process Diagram.....14
6. Pre-filing Activities and Administrative Processes .....15
7. Do States Offer Utilities Protections from Disclosure of Security-related Information? .....15
8. Security-related Considerations in an Administrative Review.....17
9. Traditional Regulatory Protocol and Cost Recovery Mechanisms .....18
10. Are There Separate Prudence Guidelines for Security Costs?.....23
11. Restructured Regulatory Protocol and Cost Recovery Mechanisms .....28
12. Cost Recovery Mechanisms .....31

## Table

1. Key Cost Recovery Mechanisms and State Examples .....7
2. Other Cost Recovery Options and State Examples .....9
3. NCSL Solution Menu .....43

# PART I

## INTRODUCTION AND OVERVIEW

# INTRODUCTION AND OVERVIEW

An important new concern for utility industries and regulators alike is the need for cost recovery of security-related expenditures. Utilities expect that state commissions will approve recovery of appropriate critical infrastructure protection costs. The NARUC Ad Hoc Committee on Critical Infrastructure has conducted several surveys, undertaken a series of cost recovery workshops and commissioned this study in order to assist state regulators in developing model cost recovery protocols that address this need.

An important issue raised during the NARUC/DOE cost recovery workshops and by many state commissions in general, was the need for a practical examination and documentation regarding the best ways to handle cost recovery for security related expenses.[1] The nation's utilities have clearly made post 9/11 security investments in both restructured and non-restructured states. This report identifies and discusses critical infrastructure protection cost recovery protocols that are appropriate for energy utilities in a variety of regulatory frameworks. It also includes the existing cost recovery mechanisms successfully used by state commissions associated with each protocol.

## What is a Cost Recovery Protocol?
## What is a Cost Recovery Mechanism?

***Cost recovery protocols, like much of regulation, are about process.***

- A **cost recovery protocol** is the identifiable process that a commission uses to address a request by a utility in order to determine whether requested monies will be recovered.
- A **cost recovery mechanism** is the specific technique used for cost recovery. The protocol underlies the logic path for cost recovery for a rate regulated utility and the cost recovery mechanism, say, an adjustment clause, is how the commission authorizes the actual cost recovery.

## Many Cost Recovery Protocols Exist

Since 9/11, a number of state commissions have responded to utility cost recovery requests.[2] The cost recovery protocols and mechanisms examined in this report are all reasonable approaches and no one protocol or cost recovery mechanism is recommended over another as the circumstances in different states may make one protocol more appropriate than another. As will be seen later, the actual cost recovery mechanisms — such as a deferral account — can be used in more than one protocol.

In some instances, new legislation or regulatory proceedings were developed to deal with critical infrastructure cost recovery. In most cases, existing regulatory cost recovery mechanisms were used. ***Nearly all of the protocols include a path to some form of a rate case proceeding.*** This

level of activity seems to indicate that the Ad Hoc Committee on Critical Infrastructure's efforts to develop critical infrastructure cost recovery protocols are well timed and will be helpful to a number of state regulatory commissions.

**State commissions have reacted in a positive and timely way to address the cost recovery requests of their energy utilities. The protocols and cost recovery methods examined in this report provide a benchmark guide for best practices that all regulatory commissions can use.**

# 1. COST RECOVERY ACTIVITIES, PROTOCOLS AND MECHANISMS

Cost recovery protocols mirror the regulatory reforms that states have undertaken in the past decade. In the energy arena a mix of rate base regulated and competitive market regulatory frameworks exist, with cost recovery requests occurring only in the regulated portions of each sector. In addition to energy utilities, water utilities have made a significant number of recovery requests, all of which have been handled under a rate base regulatory process. Some form of price caps is the dominant type of regulation for telecommunications utilities. Accordingly, it is not unexpected that no security cost recovery requests were reported in our survey for telecommunications utilities or providers.

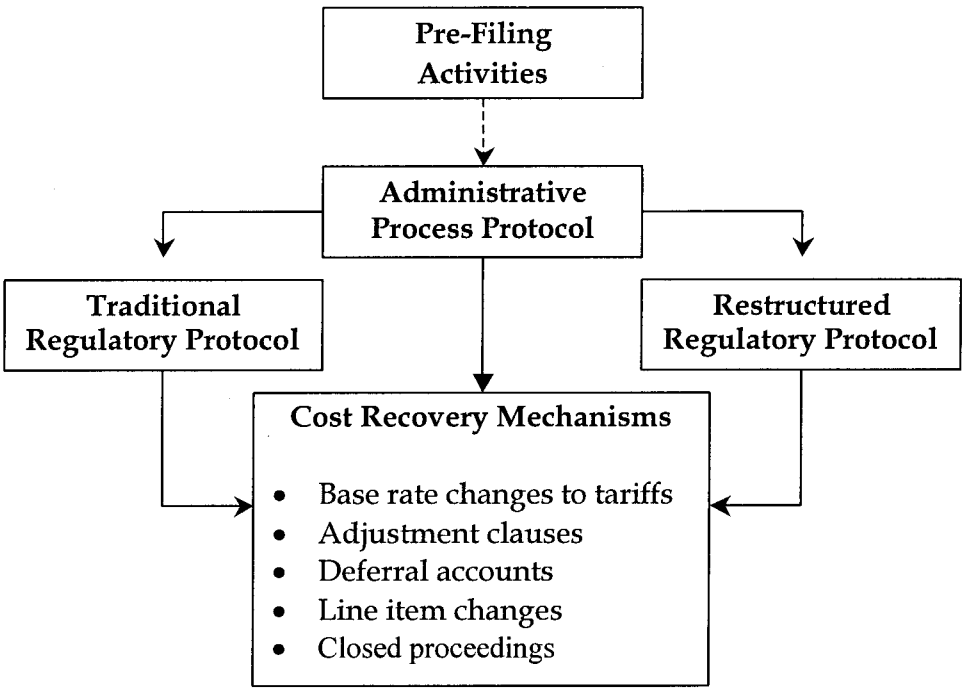
Figure 1 provides a general framework for the discussion of cost recovery protocols and identifies three protocols (administrative, traditional, and restructured) along with a set of cost recovery mechanisms.[3] While any state regulatory commission may have important variations, the protocols can be applied to different regulatory regimes and specific cost recovery situations. Because the cost recovery mechanisms available are the same for all three protocols, the real regulatory differences in Figure 1 are driven by three considerations:

1. ***Do pre-existing critical infrastructure cost recovery mechanisms already exist?*** If the answer is "Yes", then it is appropriate to use the administrative protocol for those pre-existing mechanisms.
2. ***Is the energy market in the state subject to traditional rate-based regulation?*** If the answer is "Yes", then the traditional regulatory protocol is the correct protocol.
3. ***Has the energy market in the state been restructured?*** If the answer is "Yes", then the restructured protocol is the one to use.

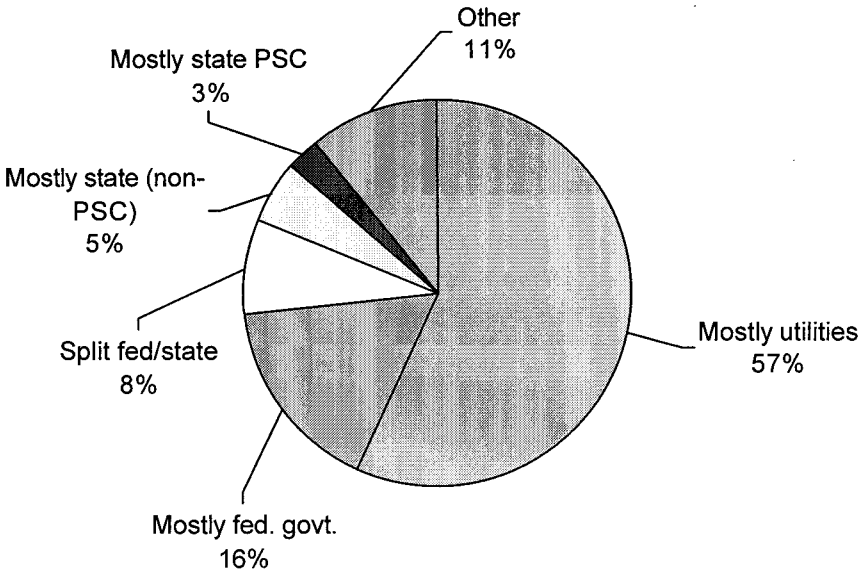
The three protocols shown in Figure 1 arise because of the differences in the underlying logic within each. All states have administrative processes that occur on the front end of a cost recovery issue. Depending on the circumstances, this may lead directly to a cost recovery mechanism, or down one of the other protocol paths (traditional or restructured).

In a restructured environment, the protocol logic says cost reimbursement requests are examined differently than in a traditionally regulated market. Regulatory standards such as used and useful, just and reasonable, and prudence tests are similarly applied in each protocol, except that a competitive market perspective is also employed in the restructured regulatory environment. In most states, security investments have been initiated by utilities and not necessarily solely in response to governmental directives (see Figure 2). Interestingly, the utilities in most states have not filed for recovery security costs (see Figure 3).

## Figure 1: Security-Related Cost Recovery Protocols and Mechanisms




## Figure 2: Who is driving security-related investments?




**According to state public service commissions (PSCs) - It is mostly the utilities.**

Source: Authors' construct from McGarvey and Wilhelm (2003), n=37 (10 other states reported no investments).

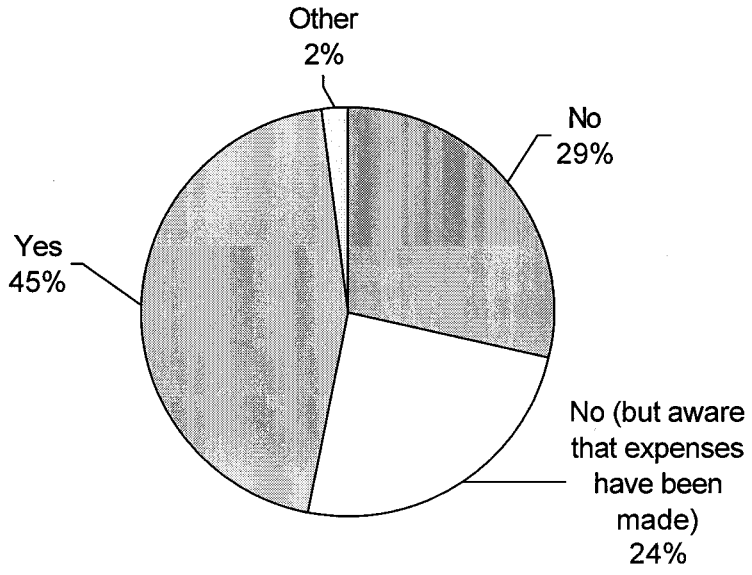
# 2. PRE-FILING ACTIVITIES AND ADMINISTRATIVE PROCESS PROTOCOL

Prior to the filing of a formal rate case, state rules may permit a utility to discuss issues with the state commission. Two types of preliminary activities identified are pre-filing discussions and ongoing dialogues. While significant differences exist between states,

- Some state rules allow for discussions between utility and regulator prior to filing. This can serve to brief regulators about security cost considerations.
- Another activity is to promote an ongoing dialogue, such as New Jersey has done, that allows regulators and utilities to discuss infrastructure security issues, including cost recovery.[4]

Commissions clearly have a well-formed set of administrative processes for addressing cost recovery issues. These processes serve as filters. The administrative protocol for security-related costs is applicable if and when a legislative act or commission rule specifies a particular cost recovery mechanism, such as Connecticut's Special Infrastructure Cost Recovery Hearing. This allows the commission to have a more focused cost recovery process, and not to have to rely on the traditional regulatory protocol.

**Figure 3. Are utilities filing for security-related cost recovery?**




***Most states still have not had filings*** even though they are aware that security-related expenses have been made.

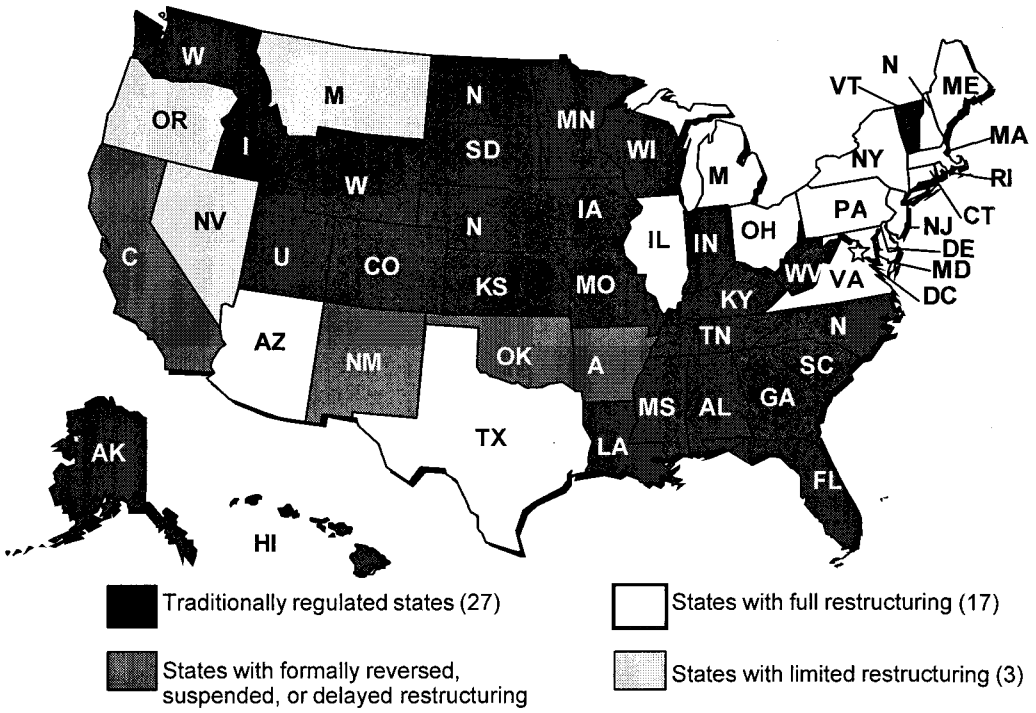
Source: Authors' construct from McGarvey and Wilhelm (2003), n=49.

# 3. REGULATORY PROTOCOLS

Regulatory protocols guide the processes state commissions use to make cost recovery decisions. In states with vertically integrated, rate base regulated electric and natural gas utilities (see Figure 4), rate cases are the primary way that critical infrastructure costs are addressed. Iowa, for example, examined and allowed specifically identified critical infrastructure costs in several rate cases. In some other states, rate cases were pending but not resolved. Most states surveyed by NRRI indicated that they had not seen a specific critical infrastructure protection cost recovery request.

In states with restructured electricity markets, generally a base case exists that deals with cost recovery. The logic underlying a utility cost recovery request is that the increase in security costs was not known at the time of restructuring and that a filing to recover these costs is appropriate. In Connecticut, as noted above, and in Michigan the legislature acted to allow the regulator to consider cost recovery for electric utilities. In restructured markets, cost recovery is more risky than in traditionally regulated markets.

**Figure 4. Map of state electricity markets**




Source: Authors' construct from Potter (2003), updated to June 2004.

In each of the cost recovery protocols and cost recovery mechanisms, regulators consider all cost changes before determining what security costs are authorized for recovery, although cost recovery is not guaranteed, just allowed. A utility may present valid and well-documented critical infrastructure protection cost information, but not be allowed the opportunity for cost recovery because an equal offsetting cost savings has occurred. It may be that the cost-of-capital has decreased and these documented savings necessarily reduce some portion of the security costs allowed for recovery. Equally, significant cost offsets may not exist, or may be dealt with in a subsequent proceeding. These cost recovery considerations also apply to regulated water and telecommunications utilities.

# 4. COST RECOVERY MECHANISMS AND OPTIONS

NRRI's survey of the states identified eight main cost recovery mechanisms (see Table 1) that have been successfully implemented in various states. Utilities have been allowed the opportunity to recover their critical infrastructure protection costs in restructured as well as traditional regulatory environments. All of the mechanisms are described in detail in Section 3, Detailed Discussion of Security Related Cost Recovery, but the outlines of each cost recovery mechanism can be seen in Table 1, and additional cost recovery options are noted in Table 2.

**Table 1: Key Cost Recovery Mechanisms and State Examples**

| Cost Recovery Mechanism | Highlights | State Example |
|---|---|---|
| Base Rate Changes to Tariffs | • Rate base adjustment for nuclear power plant security<br>• Operations and Maintenance (O&M) security expenses requested | Iowa (page 33) |
| Adjustment Clauses | • Fuel adjustment and capacity cost recovery clauses used<br>• Focus on incremental post 9/11 security costs | Florida (page 33 and 34) |
| Closed Proceedings | • Legislative act provides confidential treatment of security costs<br>• Consumer group may review documents | Kansas (page 35) |
| Deferral (Balancing) Accounts | • Costs must be reasonable and prudent<br>• Costs deferred while rate cap in effect | Michigan (page 36) |
| Security Recovery Factor Charges | • Enhanced security costs eligible for recovery<br>• Recovery is net of insurance or government funds | Michigan (page 37) |

## Base Rate Changes to Tariffs

A rate case is the standard way regulated utilities recover costs through a change to the existing, or base tariff, in which prices are authorized to increase to cover allowable and needed increases in capital, O&M, and other costs. While all of the mechanisms listed in Table 1 serve distinct purposes, they all have a common origin in a rate case where utility requests to change tariffs are resolved. In a traditional regulatory environment protocol, other types of cost recovery mechanisms are possible—most notably an adjustment clause—but each mechanism is either authorized in or reconciled to the rates previously approved in a rate case, although a significant time lag may exist. In a restructured environment protocol, commissions are able to consider rate changes for distribution rates, or retail customers, or standard offer customers, but these are generally tied to an initial rate case. NRRI found:

- States with pending utility rate case filings for critical infrastructure cost recovery, but as no action had been taken, no trend lines can be drawn.
- States with rate cases filed, but which do not have specific security costs identified.
- Instances where utilities have indicated that they do not intend to file for cost recovery.
- Iowa's consideration and approval of security costs.

## Adjustment Clauses

In many states, adjustment clauses may be used to recover extraordinary costs that occur between rate cases. The Florida Public Service Commission used two different adjustment clauses to allow, in part, three Florida utilities to recover security costs due to compliance with a Nuclear Regulatory Commission order and for security, actions taken that were consistent with Presidential Homeland Security directives and North American Electric Reliability Council actions.[5] Some of the costs authorized for recovery were costs that would normally be classified as capital items.

## Closed Proceedings

Except for proprietary information, commission proceedings are generally open. Due to security concerns, the Kansas Legislature acted to provide a confidential proceeding where the amount of recovery requested, the amount allowed, and the method of cost recovery were kept confidential.[6] Its focus was on post-9/11 security costs and provides for a cost recovery period within half of the useable lifetime of the investment. The Act also allowed the Citizen's Utility Ratepayer Board access within a protective order.

## Deferral (Balancing) Accounts

Deferral accounts allow a utility to accumulate critical infrastructure protection expenditures that may be recovered in a rate case or other proceeding. This may be the cost recovery mechanism

most commonly used in conjunction with other cost recovery mechanisms. The Michigan legislature specifically authorized such an account so that costs could be accrued and deferred until rate caps are removed.[7]

## Security Recovery Charges

In addition to general costs, a commission may allow a specific cost to be recovered through a security factor that can be included in rates. In Michigan, enhanced security costs can be recouped through a security recovery factor. In authorizing recovery, the commission must determine if costs are reasonable and prudent and are jurisdictionally assigned to retail customers.

### Table 2. Other Cost Recovery Options and State Examples

| Cost Recovery Options | Highlights | State Example |
|---|---|---|
| Notice of Inquiry | • Comprehensive regulatory forum to address a wide range of issues, including cost recovery | Oklahoma |
| Ongoing Dialogue | • Best practices identified | New Jersey |
| Special Cost Recovery Proceeding | • Ensures that ratemaking includes consideration of reasonable security costs | Connecticut |

## Notice of Inquiry

Rather than using a rate case, a commission may initiate a special proceeding or notice of inquiry (NOI) to establish a cost recovery framework (see Table 2). Cost recovery, confidentiality of data, and other critical infrastructure protection issues have been approached by Oklahoma through the NOI process.[8] Cost recovery was a central issue covered. Formal commission action is still pending, however.

## Ongoing Dialogue

New Jersey, and Ohio told NRRI that they had a dialogue with their utilities. In New Jersey dialogue occurred through the New Jersey Infrastructure Advisory Committee. In Ohio, utilities are informally polled as they file rate cases.

## Special Cost Recovery Proceeding

The Connecticut legislature acted to ensure ratemaking consideration of security costs. Connecticut regulators must examine the costs and find them reasonable. Connecticut has accepted some costs, but not others.

## Concluding Observations

State regulatory commissions have acted in a number of ways to address the infrastructure cost recovery concerns of utilities, legislatures, consumers, and other stakeholders. ***In the majority of instances, state commissions have not received a specific cost recovery request (see Figure 3).*** It may also be that incremental security costs did not reach a materiality threshold and were not discussed explicitly in rate case filings. Of the states that have directly addressed security costs, all have done so in some form of a rate case context. Often, either a cost recovery mechanism was followed that was then paired with a rate case, or the whole cost recovery request was entirely made in a general rate case proceeding. In all instances, the rate case requirement that a recoverable cost be prudent, or just and reasonable was a central concern.

The cost recovery mechanisms that were paired with the rate cases are interesting and reflect attempts to work out key issues in advance. The Kansas closed rate case focused rate case and appears to be an expedited approach. The adjustment clauses and the focused issue hearings expedite recovery by producing, in effect, a commission-approved cost pre-approval that would be confirmed in a subsequent rate case. A number of rate cases used various forms of stipulation, or agreements between the parties, that also had the effect of looking like a pre-approval of costs, although commissions were not necessarily bound by a stipulation among the parties. The general rate case was without a doubt the most common critical infrastructure protection cost recovery approach.

# 5. Cost Recovery Considerations

Subsequent to a determination that there is a need for recovery of costs, how closely a state commission might want to exercise its prudence review should be influenced in part by the type of regulation to which the particular utility is subject. In other words, which protocol path is most appropriate?

If the anticipated expenditures on security are relatively small and the utility is over-earning, then a utility might be reluctant to bring a rate case to recover its additional cost. Some utilities might be uncertain about expending money or investing in security if they are subject to a price cap or a rate freeze. In such a situation, all other things being equal, there might be an incentive for the utility to under-invest in security measures. This can be particularly troublesome as many security-related expenditures have positive externalities and they might have the effect of making the utility network more secure. Equally, state commissioners are also sensitive to not creating an incentive for carte blanche expenditures on security, which in turn end up directly in higher

rates. State and federal commissions have been sensitive to any possible incentive for a utility to cut expenditures to suboptimal levels under price cap or rate freezes, unless other mechanisms for cost recovery are created.

The policy implications are that:

- State commissions regulating utilities subject to either a price cap or rate freeze might mandate security measures (which would be difficult to the extent that asymmetry of information would tend to favor the utility having expertise over the commission).
- The commission might try to isolate prudently incurred security-related expenditures, or investments and provide for a special rate adjustment or rate supplement mechanism to allow these costs to be recovered.

At the federal level, as of June 2004, the FERC had approved at least five cost recovery surcharges.[9] And, as stated in the *FERC's FY 2005 Congressional Performance Budget Request*, the FERC plans to give its highest priority to processing any filing made for the recovery of extraordinary expenditures to safeguard the reliability of our energy transportation systems and energy supply infrastructure. The FERC has set as its performance target of timely processing of such filings: within 30 days for gas and oil rate filings and within 60 days for electric filings.[10]

**The FERC, in its Statement of Policy on Extraordinary Expenditures Necessary to Safeguard National Energy Supplies, indicated its awareness that:**

> *"...there may be uncertainty about companies' ability to recover the expenses necessary to further safeguard our energy infrastructure, especially if they are operating under frozen or indexed rates. In order to alleviate this uncertainty, the (FERC) assure[d] its jurisdictional companies that it will approve applications to recover prudently incurred costs necessary to further safeguard the reliability and security of our energy supply infrastructure in response to the heightened state of alert. Companies may propose a separate rate recovery mechanism, such as a surcharge to currently existing rates or some other cost recovery method."* (FERC, Docket No. PL 01-6-000, 96 FERC ¶ 61,299 (2001)

# 6. OTHER IMPLICATIONS

Other implications for states when considering critical infrastructure cost recovery requests include:

- **A need exists for critical infrastructure protection standards or guidelines** that regulators and utilities can use in ensuring that critical infrastructure is protected and that can be used in a cost recovery proceeding, which may be used in a pre-approval or other regulatory proceeding. State commissions can and have made cost recovery decisions without guidelines, but having guidelines is especially helpful for resolving prudence, reasonableness, and used and useful concerns.

- Commissions should **examine existing guidelines** issued by the North American Electric Reliability Council (NERC), the Network Reliability and Interoperability Council (NRIC), and the Department of Transportation's Office of Pipeline Safety (OPS) as a baseline for determining the guidelines or standards that they will use in their proceedings.

- Standards are more prescriptive than guidelines, but **standards may make cost recovery less problematic**. Guidelines, however, may offer greater flexibility that accounts for regional differences.

- **Critical infrastructure investments also need to be thought of as investments that increase shareholder value**. Both commissions and utilities have a common interest in ensuring continuity of service, but utility shareholders have the added interest in ensuring that net future revenue streams are not disrupted by terrorist attacks.

- Providers of utility services may be fully or partially regulated, or not regulated at all. Cost recovery for a vertically integrated regulated utility raises a different set of issues than a partially regulated utility in a price cap setting. **To date, all identified security cost recovery has occurred directly or indirectly in a rate case proceeding.**

- Whether or not standards or guidelines are used, **the state regulatory commission remains the final decision maker** (within constraints set by legislation and court decisions) regarding the timing, amount, and items eligible for cost recovery. A finding of prudence or reasonableness by a commission was a common part of all proceedings.

- **Pre-approval mechanisms exist,** but all identified have been eventually integrated in a larger rate case proceeding.

- **Utilities felt a strong need to have an informal dialogue with regulators** about their critical infrastructure plans. Protocols and rate case proceedings may need to have this flexibility.

- **Insurance** may be difficult to acquire, but regulators may wish to see that insurance was considered as an option.

# PART II

## DETAILED DISCUSSION

# 7. SECURITY RELATED COST RECOVERY – DETAILED DISCUSSION

This section describes in detail the cost recovery protocols and mechanisms identified in our survey of the states. Determining issues related to cost recovery of utility expenditures is a central role of federal and state public utility commissions. One way to look at security costs is through a framework like the one developed by the Battelle Memorial Institute that identifies the key elements of an effective security program. Battelle's framework includes (in no particular order):[11]

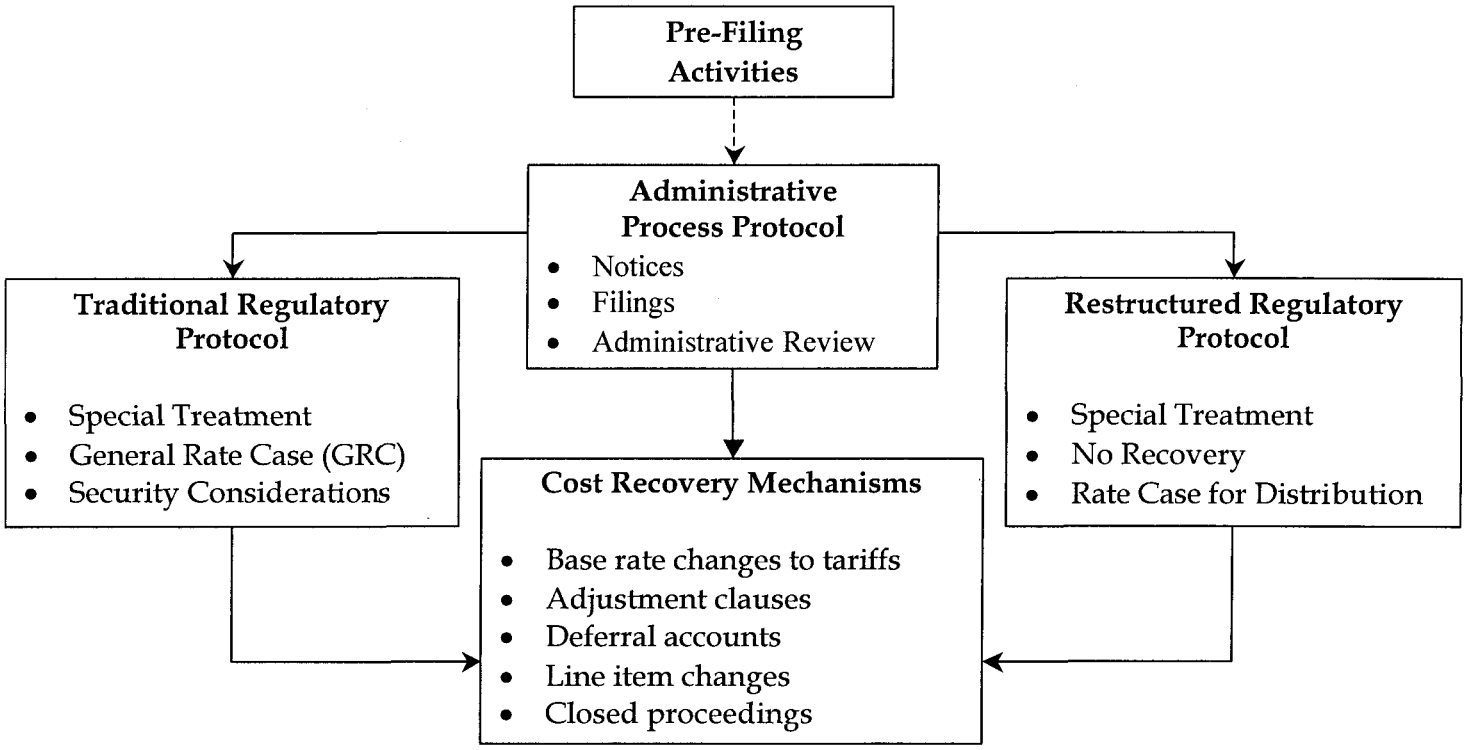
- Vulnerability assessments;
- Information management and intelligence;
- Threat detection;
- Physical security and deterrence;
- Cyber-security;
- Consequence management;
- Event mitigation; and
- Counter-terrorism.

With the exception of counter-terrorism, state and federal public utility commissions may expect a utility to undertake some or all of these functions. The level of effort and the decision on what to focus are a concern that can be somewhat alleviated by the development of standards or guidelines. ***Responding to governmental directives, such as a Nuclear Regulatory Commission directive, is an authoritative and governmentally sanctioned way of determining on which aspects of security a utility should focus.*** Carrying out these functions comes at a cost, whether the cost is a one-time non-capital expenditure (such as a vulnerability assessment), ongoing security expenditures, or capital investments.

This section discusses the protocols, and the underlying rationale, that state commissions can use in their cost recovery decisions. Figure 5 provides a detailed view of the entire security-related cost recovery process – from preliminary activities through various cost recovery protocols, and to the cost recovery mechanisms themselves.

By design, a generic framework that applies to most, if not all, commissions will have many exceptions. Certain steps may be rearranged, or be known by different names in different states. At nearly any point in the process, a state commission can redefine the issues involved and modify the process accordingly. However, even with these caveats, the main outline of the three cost recovery protocols holds for most states. Further, the security-related cost recovery protocol process diagram allows state commissions to visualize and modify their protocols as appropriate.

**Figure 5: Detailed Security-Related Cost Recovery Protocols Process Diagram**

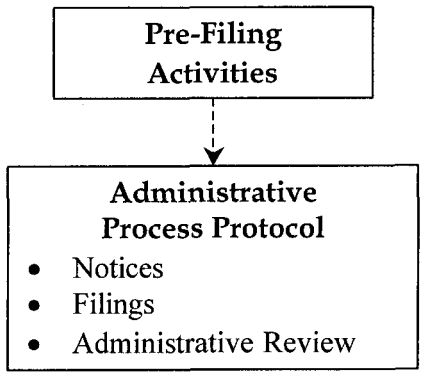



# 8. PRE-FILING ACTIVITIES AND INFORMAL DISCUSSIONS

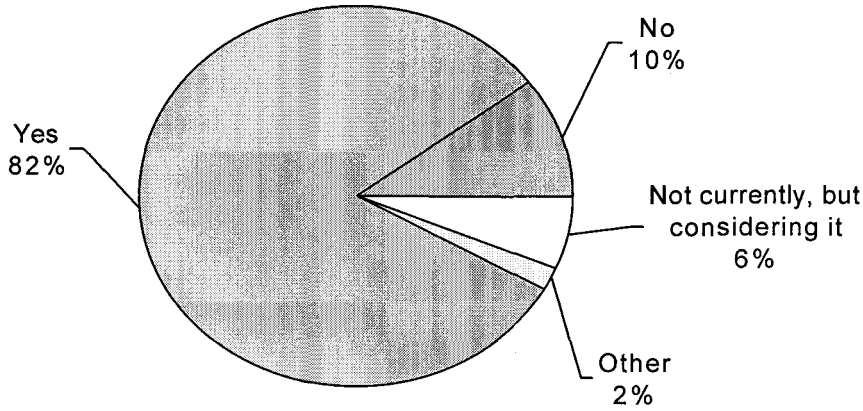
Cost recovery discussions may occur between the utility and the commission prior to an official critical infrastructure cost recovery filing. State laws and administrative rules differ significantly between states regarding the ability to talk to utilities. In some states, utilities are allowed to discuss issues with the commission, but only prior to any formal notice being filed for a proceeding. In these situations, a utility may brief the commission, say, about its security concerns, plans, and costs, but the commission is under no obligation to respond or pre-approve.

In some states, a commission may establish a working group, task force, or committee to look into an issue, such as cost recovery, or protection of confidential information. New Jersey is a good example of a state with an ongoing working group focusing on critical infrastructure. The idea of a dialogue was a central component of the NARUC Cost Recovery Workshop dialogue. While a commission is under no obligation to bind itself in any critical infrastructure dialogue, such a setting could allow the utility to share information and raise issues in a non-adversarial setting. Other groups and stakeholders may need to be included, depending on the state's rules. These dialogues could also take place in public conferences convened by a third-party.

## Figure 6: Pre-filing Activities and Administrative Processes




## Figure 7: Do states offer utilities protections from disclosure of security-related information?




***Yes - Most do.*** **And this number has increased significantly since 2002.**
Source: Authors' construct from McGarvey and Wilhelm (2003), n=49.

# 9. ADMINISTRATIVE PROCESS PROTOCOL

In general, there are three main components to commissions' administrative proceedings for cost recovery. As shown in Figures 6 and 8, these include notices, filings and administrative reviews. A brief discussion of these follows.

## Notices and Filings

Oftentimes, the administrative process starts with a pre-filing notice, followed by the formal filing. A commission examines the filing and makes a determination about the issues in the filing and whether the administrative remedy requested is appropriate. This could happen when the commission concludes that the relief being requested is no longer jurisdictional due to changes in regulatory structure. A commission may also examine the filing to see if it is intended as a rate case or for a previously approved proceeding, such as a fuel adjustment or capacity clause.

## Administrative Reviews

While done somewhat differently in each state, all filings are initially administratively examined or reviewed to determine their appropriateness. There are several security related issues that may be considered during an administrative review. These include the issue of jurisdiction, whether cost have been pre-approved or not, and the appropriate regulatory framework for cost recovery (traditional, restructured or hybrid) for the utility in question. Figure 8 highlights these issues.

### *Commission Jurisdiction*

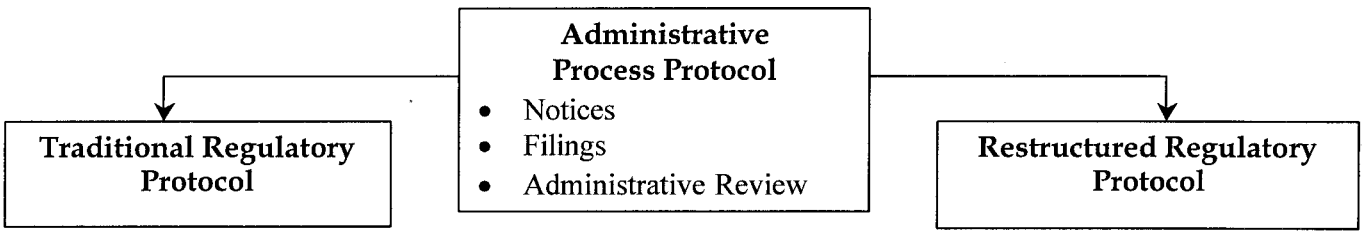
An important step that state commissions need to take when considering a request for recovery of security-related costs is whether or not the costs are jurisdictional or non-jurisdictional, or state or federal. Nearly all telecommunications utilities, most electric utilities, and some gas and water utilities have complex corporate structures that include both jurisdictional and non-jurisdictional entities and activities. ***Only the state commission may consider the security-related costs that are associated with the jurisdictional utility service.*** In order to determine whether security-related expenditures are joint or common costs, the state commission must use established cost allocation methods to divide the security-related costs between the jurisdictional and non-jurisdictional entity or activity. In other words, only those security-related costs related to the regulated activities of a jurisdictional entity should be considered. [12]

In the case of security-related cost recovery for telecommunications network equipment, which is a joint and common cost between state and federal jurisdictions, the telecommunications separations system provides the initial starting point for cost allocation. Currently there is a separation freeze, which means that the allocators used in the separations process are frozen.

Unless utility requests an exception, 76 percent of all increased expenditures that are joint and common costs are state jurisdictional, while 24 percent are federal.

If an inappropriate regulatory remedy is requested, the commission may reject the filing. It may or may not suggest the appropriate regulatory remedy. This procedure essentially involves a shortened staff review and commission concurrence and signing.

**Figure 8: Security-Related Considerations in an Administrative Review**




## *Pre-approved expenditure determination*

In some instances, such as a previously established deferral or holding account, or adjustment clause, the utility is simply filing or registering expenditures that will be recovered later in a manner previously established by the commission. This protocol approach has been used in critical infrastructure cost recovery requests.

## *Applicable regulatory framework*

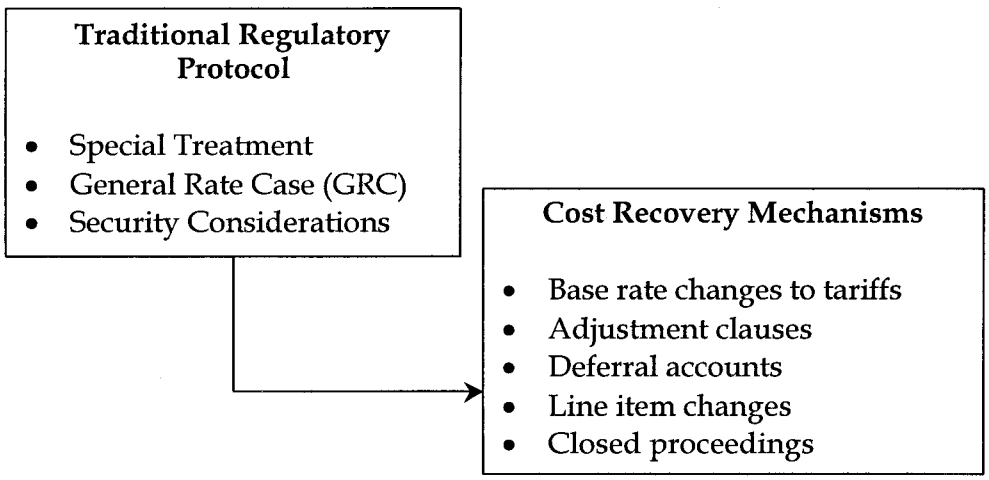
Many decisions are made in rate cases and are discussed in detail in a subsequent section. Commissions decide whether utility customers or utility shareholders are to pay for security costs. Traditionally security costs have not generally received a lot of regulatory attention. In the cost recovery protocols examined in this report, the existing level of security costs were accepted as a given and any regulatory review centered on the incremental post-9/11 security costs. The most visible example of this being utilities filing for cost recovery requests due (in part) to complying with post-9/11 Nuclear Regulatory Commission directives.

***The "last mile" is generally still regulated in states that have competitive or restructured utility markets.*** This "last mile" may provide a common platform for incumbent and competitive providers that is still regulated and subject to commission oversight. The issue of concern to regulators is whether in a mixed regulatory regime — one partially regulated—that costs are properly assigned. ***Captive ratepayers and competitive providers of utility services can be disadvantaged if costs are wrongly assigned.*** For the portion of the utility still under state jurisdiction, most of the same cost recovery protocols already in use by the commission are appropriate.

Prior regulatory hearings or legislative acts may have established an adjustment clause, line item charge, or special proceeding that a state may use in an administrative protocol, even in a traditionally regulated state. This administrative protocol allows a pre-existing cost recovery mechanism to be used for critical infrastructure protection cost recovery requests. The Florida Public Service Commission, as part of its annual proceeding on fuel and purchased power expenses, approved certain security-related costs. These costs, incremental to costs recovered through base rates, were recovered through the fuel cost recovery clause and the capacity cost recovery clause.[13] These costs, once approved, would flow through and be a base rate tariff charge. In a restructured state, such as Connecticut, a legislative act allowed the Connecticut Department of Public Utility Control to examine and authorize critical infrastructure costs to be included in base tariff rates.[14] Within the administrative protocol, then, the commission may examine the costs according to its rules and determines the amount to be recovered.

# 10. Traditional Regulatory Protocol

## Figure 9: Traditional Regulatory Protocol and Cost Recovery Mechanism




Well-established cost recovery procedures exist in all states that regulate utility services. Whether the state's utility markets are served by single provider or are open to competition, states have a long history of experience with traditional cost recovery of the jurisdictional wholesale and retail portions of a utility operation. Traditional cost recovery mechanisms for specific items can take many forms, including previously approved rate adjustment clauses, retail bill line-item charges, simple tariff changes, and all the way up to a large general rate case. These cost recovery mechanisms have been variously applied by commissions in their response to critical infrastructure cost recovery reimbursement requests. Figure 9 highlights key components that might be encountered when the administrative review dictates following the traditional regulatory path. Figure 9 also outlines the potential cost recovery mechanisms that might be appropriate.

The first step down the traditional path is to determine whether the applicant's filing falls within a pre-defined set of special treatment protocols such as a pre-existing approval to issue a line-item charge or an adjustment clause that might have been pre-approved in a previous case. If such treatment is warranted the case would proceed to be reviewed for allowance or disallowance using that specific cost recovery mechanism. If such treatment is not appropriate, the recovery request would proceed into the general rate case (GRC) process. Within the GRC process, the commission would undertake the evaluation of the critical infrastructure expenditures. Ultimately, the GRC would conclude with a determination of recovery, allowance or disallowance, within a well defined, traditional ratemaking process.

Traditionally regulated utilities are given an opportunity to recover jurisdictional service costs that are at the same time prudent, used and useful. ***Once costs are determined to be associated with jurisdictional utility service, a state commission must determine whether the security-related costs are used and useful, as well as whether they are prudent.*** It is the utility's responsibility to identify and make the link between an expenditure and its security function for the commission.

***Security-related expenditures and investments mandated by either state or federal agency may be considered prudent.*** To date, most security-related investment or expenditures have necessarily been driven by the utilities themselves and not by state or federal mandates. In the NARUC Cost Recovery Workshops, it was noted by several participants that state commissions should consider a collaborative dialogue to discuss what actions are necessary to meet the security needs of the utility. Such commission-utility discussions would, it was felt, be general in nature and details would need to be kept confidential. Traditionally, cost recovery and reasonable access to information associated with utility expenditures have gone hand-in-hand. Developing appropriate policies, practices and procedures for the disclosure and handling of security sensitive information is a fundamental necessity for cost recovery.

If it is determined that security-related costs are used, useful and prudent, there are a variety of cost recovery protocols that might be appropriate. In choosing a cost recovery mechanism state commissions may also consider the relative size of the security-related expenditures.

A cost recovery mechanism can be used in a traditional rate case, or other regulatory proceeding, such as an adjustment clause. It can also be used, to a much lesser extent, for restructured utilities, and mainly for the distribution utility. A cost recovery mechanism is the final administrative tool that the commission uses to allow cost recovery.

## Special Considerations and Treatment

When a utility seeks recovery for critical infrastructure investments, the filing may provide the commission with cause to apply special considerations or treatment outside of the larger parameters of a traditional review. An example of special consideration might be an expedited review process. It might be that the recovery sought was for expenditures on critical

infrastructure that fell into a certain previously approved, reviewed, or generally accepted category of expenditures. Depending upon the regulations, statutes, and practices of the state, a commission may need to consider special confidentiality treatment for the sensitive security information portion of the pleading and proceeding. The NARUC/NRRI 2003 Survey on Critical Infrastructure found that 84% of the states have exemptions to Freedom of Information Acts or other protection mechanisms in place to guard against the disclosure of sensitive security information that applicants share with the state commission.[15] In part due to the commission experience with Y2K, and in dealing with confidential information with competitive implications, and because of the clear consensus to prevent information from being revealed to terrorists, state commissions overwhelmingly acted to modify their disclosure rules and sought legislative authority when needed.

If the nature of the pleading was so overwhelmingly sensitive that attempting to protect the sensitive information, as part of a general rate case would prove too difficult, a commission might conduct a special entirely closed proceeding. Generally, parties to rate case proceedings have recognized the need to protect data and developed reasonable ways to handle confidential data. When confidentiality issues have been important issues in regulatory proceedings, the issue appeared to center on financial data. Commissions generally resolved this through the use of stipulations and by approving rates that did not specifically identify the security cost component.

## General Rate Case (GRC) Considerations

Absent a previously established specific cost recovery mechanism, a showing for special consideration in terms of expedited recovery, or other special treatment, the merits of a critical infrastructure cost recovery pleading have been resolved in the course of a traditional general rate case proceeding. However, even a GRC from the start may have to consider and implement mechanisms for the protection of confidential security-related information.

A "prudence review" is a common activity that occurs during a GRC. Various aspects of security-related costs can be evaluated through this process. Within the prudence review is the *prudence test* and the *used and useful test*. The consideration of insurance may also be necessary. The existence (or lack of) of security guidelines will drive the scope and scale of the prudence review tests. The review will culminate in a determination of the allowance of the claimed expenditures. If recovery is allowed, the process will proceed to the appropriate cost recovery mechanism.

### *Prudence and used and useful reviews*

Under traditional regulation, utilities may recover costs that are both "prudent" and "used and useful."[16] ***It is the role of a commission to review costs and ensure that recovery is based on prudently incurred costs that are both used and useful.*** How that review occurs is a product of state statute, administrative rules, and traditions of practice. There are some general guidelines

that a typical state prudence review would follow to determine whether a critical infrastructure expenditure was prudent and used and useful.

***Critical infrastructure protection may have special characteristics that do not neatly fit into the established prudence and reasonable standards used by commissions.*** In the NARUC Cost Recovery Workshops, participants expressed several concerns. The first was that the utilities felt that they were going to incur significant costs when the U.S. Department of Homeland Security (DHS) changed its color alert levels in response to a threat. If no attack occurs, the issue was whether an after-the-fact review in a rate proceeding would disallow some or all of these expenditures as not being "used and useful", however prudence guidelines prevent hindsight. A second concern, that follows the same line of reasoning, is whether capital investments and other expenses may be ruled to be non-recoverable after the fact. Some also felt that normal requirements to have construction projects competitively bid might result in some costs being disallowed if the utility felt it had to respond quickly.

Examining prudence first, expenditures must be prudent to be subject to cost recovery. There are **four widely accepted guidelines** that can be used to determine whether an investment or expenditure is prudent.

1. The first guideline is the presumption that the investment and expenditure decisions of a utility are prudent. Unless the presumption of prudence is overcome, there is no need for further examination of the investment or expenditure. The existence of standards or guidelines, or governmental security protection requirements would be important in reinforcing a presumption of prudence. However, an allegation of imprudence that is backed by substantive evidence creating a serious doubt about the prudence of the investment or expenditure decision would require a commission to apply the prudence test to determine whether or not the expenditure or investment qualifies for full or partial cost recovery or no cost recovery at all. ***There is no presumption of prudence for affiliate transactions, whether they are for expenditures or investments.***
2. The second guideline is that, to be prudent, a utility decision resulting in expenditures or investments must have been reasonable under the circumstances that were known or knowable at the time the decision was made.
3. A corollary to this is the third guideline: the proscription against hindsight. The proscription against hindsight means that one cannot supplement reasonableness under the circumstances at the time of the investment decision with other standards that first look at the final outcome of the decision. How this proscription against hindsight is applied will greatly resolve the dilemmas posed at the Cost Recovery Workshops. Nevertheless, consideration of the outcome may legitimately be used to overcome the presumption of prudence.
4. The fourth guideline is that prudence is determined in a retrospective, factual inquiry, which should exemplify the proscription against hindsight.[17]

In addition to being prudent, expenditures must be used and useful. State commissions may consider security-related expenses to be used and useful so long as they are directly related to jurisdictional critical infrastructure or linked to the critical infrastructure through processes that support the critical infrastructure. For example, if electricity or telecommunications distribution systems are considered to be critical infrastructure, then the distribution service restoration processes may be found to be critical to supporting that infrastructure. Consequently, assets and expenditures that support the service restoration process might, therefore, be considered to be security-related costs. As noted above, security-related costs can be classified as serving one or more of the following functions: vulnerability assessment; information management and intelligence; threat detection; physical security and deterrence; cyber-security; consequence management; and event mitigation.

Michigan has defined security costs for recovery purposes as those costs that are reasonable and prudent costs of new and enhanced security measures mandated by government or found necessary by the commission. [18] The statute goes on to include applicable insurance and service restoration costs.

***In the NARUC Cost Recovery Workshops** it was noted that security expenditures can be:*

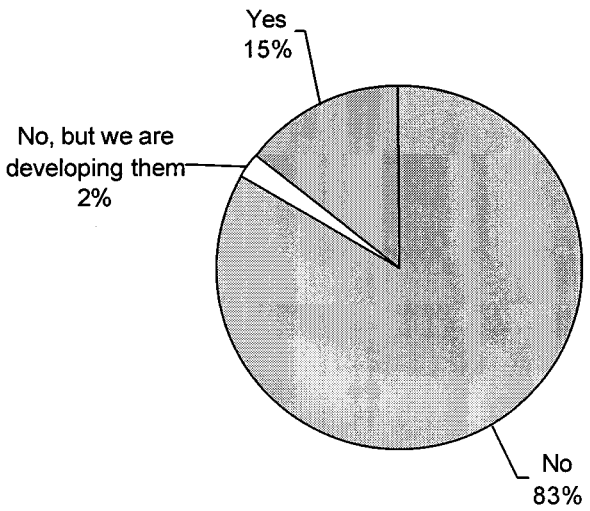
- ***One-time, non-capital expenditures;***
- ***Ongoing security expenditures; and***
- ***Capital expenditures.***

*They can be the same as or different than pre-9/11 costs. In some cases, there will be a one-time expenditure that might properly be amortized over several years. There might be new facilities and equipment (including additions to spare equipment in inventory), or additional ongoing expenditures, such as the hiring of personnel or the purchase and ongoing training of security dogs. There are wide arrays of additional expenditures that may be considered security-related, and as long as they serve one of the above security functions for critical infrastructure or its support, the expenditure should be considered used and useful. It is the utility's responsibility to identify and make the link between an expenditure and its security function for the commission to be satisfied that the expenditure is used and useful.*

As part of a prudence review, a commission may need to consider the role that contracted insurance plays in the applicant's critical infrastructure plans and expenditures. ***Insurance can provide both an incentive and a risk management tool for utilities.*** Insurance companies can require that certain actions be undertaken by utilities if they wish to purchase insurance. Second, utilities can minimize their risk by purchasing insurance. Michigan explicitly requires that the reimbursement of security recovery costs must be net of any insurance proceeds.[19]

Independently of the shared concerns of both regulators and utilities about service availability, utility shareholders have an unmistakable interest in preserving net future revenue streams. Losing customers through an inability to provide needed services due to terrorist attacks affects the utilities' revenues and bottom line profitability. Utilities have a clear interest in insurance coverage, as well as preventative and service restoration planning and investment.
The existence of security investment guidelines (or standards or rules)[20] will have significant impact on the review process of critical infrastructure expenditure recovery sought in the context of a GRC. If a state commission has security investment guidelines the application of the prudence review and used and useful tests will be faster and less arguable. If the guidelines are specific enough, it may be that prudence review steps can be by-passed for items that fall within the security guidelines. A commission's guidelines may go so far as to establish a list of critical infrastructure expenditures that will receive approval *prima facie*. If a state has security

**Figure 10. Are there separate prudence guidelines for security costs?**




***No*** **– most states plan to use their existing prudence review process for handling security-related expenses. However, a few state commissions are developing them or have some modifications in place.**

**Source: Authors' construct from McGarvey and Wilhelm (2003), n=48.**

guidelines and an applicant's request for recovery is not within the parameters of those guidelines, the commission could review the request through a detailed prudence review as described above. The presumption of prudence seems to have been the prevailing regulatory perspective in the cost recovery protocols identified in our survey. If the security guidelines are written such that any security expenditure outside the guidelines is by definition non-recoverable, the commission would simply deny the recovery in its order for the GRC.

In contrast to other expenditures where standards have been developed and refined over many years, state commissions do not have well-established, security-specific, standards by which to evaluate the appropriateness of utilities' efforts to protect their critical infrastructure. Without standards, commissions would have to rely on witnesses in a proceeding in order to make a determination on cost recovery. Both the gas and electric industries now operate under some level of security guidelines. In the electric industry, the North American Electric Reliability Council (NERC), an intra-industry organization, has compiled the most extensive set of guidelines for both physical and cyber security.[21] Originally developed in June 2002, the physical guidelines are arranged by security topic and are periodically updated with the understanding that the guidelines are intended to evolve along with the threats to the electric industry. The existence of the NERC physical security standards is beneficial, but they leave room for differences in protection.

The gas industry largely relies upon the Security Practices Guidelines developed by the Department of Transportation's Office of Pipeline Safety (OPS) and issued in September 2002.[22] These guidelines were developed with the assistance of state pipeline agencies and pipeline industry representatives. The guidelines are not publicly available, but a review by the Oklahoma Corporation Commission (OCC) found the guidelines to be methodical and comprehensive. In addition to on-site follow-up by OPS, compliance with the guidelines is subject to review by state pipeline agencies.[23]

In its review of the status of state and federal security standards and guidelines, the OCC noted full agreement among the commission and industry participants that any measures passed by the state commission should be consistent with the requirements of other states and the federal government since companies should be held to conflicting requirements. The OCC found the NERC and the OPS guidelines to be the most authoritative and extensive guidelines available for their respective industries.

Within the telecommunications sector, the Network Reliability & Interoperability Council (NRIC) is an intra-industry organization that has developed an extensive list of best practices for the telecommunication industry.[24] Although the telecommunication industry participants in the OCC's review supported the commission's use of the NRIC guidelines, NRIC states that the guidelines are not intended to be imposed as government regulations. More to the point, the nearly 800 highly technical items in the list would be impractical to adopt as regulations; in order to make use of the NRIC guidelines, it would be necessary for a commission to identify those best practices that were relevant for the companies under the commission's jurisdiction.

The Environmental Protection Agency (EPA) is the lead federal agency for the security of drinking water and wastewater. In February 2004, the EPA's National Drinking Water Advisory Council formed the Water Security Working Group in order to establish and disseminate best practices for drinking water and wastewater utilities by 2005.[25] Under the Public Health Security and Bioterrorism Preparedness and Response Act, the EPA requires water operators serving populations larger than 3,300 people to certify to EPA that they have conducted a vulnerability assessment, and revise their emergency response plan correspondingly.[26] EPA provides grants of up to $115,000 to defray the costs of assessments. Smaller water companies (i.e., those serving fewer than 3,300 people) are not required to conduct assessments partly out of concern that they could not recoup the relatively high costs, although grants and other assistance for voluntary assessments and low-cost security strategies may be offered by state agencies. In addition, intra-industry organizations such as the American Water Works Association (AWWA) and the National Association of Water Companies (NAWC) support members with vulnerability assessments.

***Commissions must decide whether to employ mandatory security standards or a set of official voluntary security guidelines.*** In the NARUC Cost Recovery Workshops the distinction between standards and guidelines was drawn. Mandatory standards make questions of cost recovery easier to resolve since the mandate would usually imply the prudence of the corresponding expenditure. Mandatory standards also offer greater assurance against certain companies under-investing in security. However, voluntary guidelines (possibly including a method of self-certification) would allow a commission greater flexibility in dealing with the cost burden on companies of different sizes and criticality and would allow companies more flexibility to develop security plans specific to their needs. Commissions must also resolve whether imposing equal standards on all companies would require openly publishing what those specific standards are, thereby serving notice to potential attackers.

The four prudence guidelines discussed earlier can raise a more fundamental question: how does one determine what is reasonable under the circumstances for the purpose of determining the prudence of security-related expenditures or investments? The NARUC/NRRI 2003 Survey on Critical Infrastructure Security found that a large majority (83 percent) of commissions do not have different guidelines for determining the prudence of security investments and only a few are developing them at present.[27] So, what can be said about a prudence standard for security-related expenditures or investments? Certainly, security-related expenditures and investments that are mandated by either a state or federal agency are considered prudent (so long as no gold-plating takes place). However, the NRRI survey shows that most security-related investment or expenditure has been driven by the utilities themselves and not by state or federal mandates. In such cases, it might behoove state commissions to begin a collaborative dialogue, similar to that undertaken for Y2K expenditures, to discuss generally, what actions are necessary to meet the security needs of the utility.

These discussions could focus on both short-run actions that the utility can take to protect its existing system as well as long-term planning solutions that might provide for event mitigation or produce a self-healing or redundant utility system, which inherently mitigates the damage of any attack. Such discussions could deal with issues of resource allocation and the level of costs for security-related expenditures, and could allow both the commission and the utility to wrestle together with issues of whether the benefits of increased security are worth the costs as well as potentially prioritizing alternative or complementary projects by cost-benefit ratios. This would lead to the lowest cost expenditures being made on the most vulnerable part of the utility system first, something noted in the NARUC Cost Recovery Workshops. Another alternative might be to provide for outage risk insurance for ratepayers and/or shareholders. Such commission - utility discussions would necessarily be general in nature and details would need to be kept confidential.

Such collaborative dialogue might strongly appeal to state commissions and be worthwhile, particularly given the "obligation to serve" standard that state commissions still have and enforce regardless of whether their network utilities have restructured. Nevertheless, the utility needs to fulfill its obligation to provide safe, reliable, and adequate service. Further, it is the utility itself that has the expertise and knowledge of its own system, which is necessary to do a proper cost-benefit analysis. While commissions can review utility decisions, care must be taken not to substitute the commission and commissioners in place of utility management and their responsibilities. Indeed, if the commission's level of involvement becomes too great, the commission will have essentially pre-approved the decision of the utility to make its security-related expenditures. The commission would be left only to decide how well the utility had executed its security plans.

## Security Considerations – Information Handling

Traditionally, cost recovery and reasonable access to information associated with utility expenditures have gone hand-in-hand. ***Prior to Sept. 11, 2001, the trend in regulation, as in most segments of our society, was to move more and more information into the public domain.*** The Freedom of Information Act (FOIA), public records laws, open meetings, sunshine requirements, and *ex parte* communication rules all served to increase both the types and amount of information that was available to a broad-based set of stakeholders affected by utilities and their operations.

In light of the new developments concerning critical infrastructure security, the "right-to-know" proposition is being challenged or at least tempered by the more limiting proposition of "need-to-know." Developing appropriate policies, practices, and procedures for the disclosure and handling of security sensitive information is a fundamental necessity for cost recovery.

The recent NARUC/ NRRI 2003 Survey on Critical Infrastructure Security found that 82 percent of commissions offer FOIA protection for sensitive utility security information.[28] This is a substantial increase from the 2002 survey, which found that only 42 percent of states offered

protection of sensitive information (shown in Figure 7). Nonetheless, the 2003 survey also found that most commissions (54 percent) still believe that utilities are either somewhat or very reluctant to share their security information with the commission. However, this level represents a decrease from the previous year, when 74 percent of respondents reported that utilities were reluctant to share information.

Although considerations regarding the sensitivity of security-related data clearly go beyond the cost recovery issue, a commission's access to pertinent information is at the heart of traditional cost recovery determinations. It is, perhaps, reasonable to begin with the assumption that, at a minimum, summarized expenditure data on security can be shared with regulators.

***The NARUC Resolution on Guidelines for State Commission Procedures Involving the Handling of Security Sensitive Documents and the Recovery of Prudently Incurred Security-Related Costs encourages commissions to:***

- ***Review appropriate treatments of security sensitive information*** *that are available to the public.*
- ***Work with utilities*** *and other appropriate government agencies to establish procedures for cost recovery.*
- ***Share information handling procedures*** *among themselves as this issue evolves over time.*

(Resolution available at http://www.naruc.org/associations/1773/files/security.pdf.)

It may be appropriate for regulated utilities to share only generalized cost increase information with regulators. To the extent that any details in the information are sensitive due to national security concerns, state commissions should make that information confidential and not subject to state sunshine acts or FOIA disclosure. Indeed, some states have already specifically excluded information about critical infrastructure from their FOIA procedures. Other state commissions might wish to consider promulgating or proposing similar measures to their legislatures.

As noted in Appendix B, the FERC has issued Final Order No. 630 and Order No. 630-A, both of which deal with the protection of critical energy infrastructure information. Order No. 630 covers only information submitted to or prepared by the FERC. "*Critical energy infrastructure information*" is information about proposed or existing critical infrastructure that relates to the production, generation, transmission, or distribution of energy that could be useful to a person in planning an attack on critical infrastructure; is exempt from mandatory disclosure under FOIA;

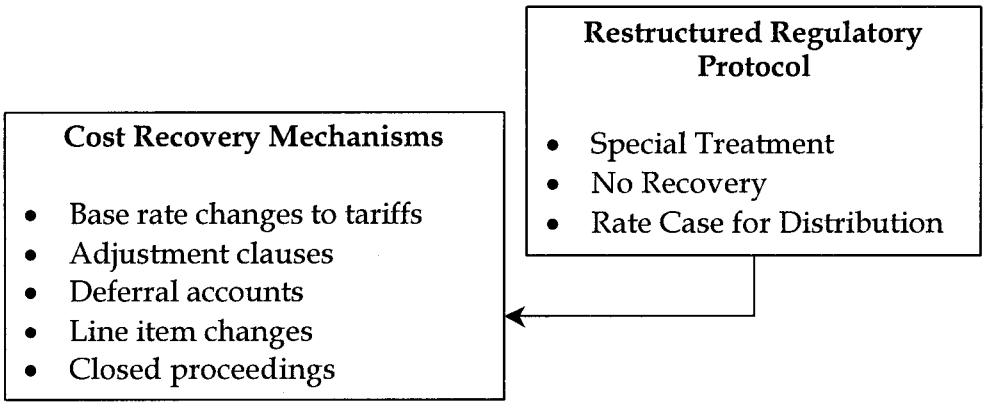
and does not simply give the location of the critical infrastructure. The applicability of FOIA requests is still to be processed on an individual case-by-case basis. Critical energy infrastructure information may or may not include information that would be useful in determining cost recovery for FERC jurisdictional costs. Nothing in Order No. 630 or 630-A prevents state commissions from independently seeking information that they might need to make a cost recovery determination; however, these orders highlight the need for state commissions to consider confidentiality concerns and to have protective order guidelines when handling cost recovery information that may have security implications.

# 11. RESTRUCTURED REGULATORY PROTOCOL

The filing of an application for critical infrastructure expenditure cost recovery in a state with open utility markets and/or competition may require a state commission to engage in special or additional considerations beyond that of a general rate case. An important part of the administrative review (Figure 8) is to determine if a path other than a traditional cost recovery path is required. For simplicity, this other path is referred to as the restructured regulatory protocol. Important elements of this protocol are highlighted in Figure 11.

The restructured path would necessarily be a consideration for electricity and gas utility services in open-market states, but it might also be a consideration in competitive telecommunications environments. If the restructured path is chosen, ***the first step is to determine if any cost recovery treatment is allowed under the new regulatory regime.*** If not, the protocol process ends at that point. The principle in effect here applies to all recovery cost requests in restructured states. If a further review for cost recovery treatment is appropriate, the next step is to determine if the review should happen in the context of a pre-existing cost recovery mechanism, or through a more general rate case type of proceeding.

**Figure 11: Restructured Regulatory Protocol and Cost Recovery Mechanisms**



## Special Considerations and Treatment

The existence of a restructured market in and of itself does not necessarily change the principle issues and considerations of critical infrastructure expenditure cost recovery. There are a variety of cost recovery protocols that might be appropriate for the recovery of security-related costs. In making an initial choice among cost-recovery protocols, regulators should consider whether the entity is subject in any service or organizational structure to rate base, cost-of-service regulation. The answer might be "no" for a variety of reasons. Most, if not all, of a utility's services might be considered to be competitive in nature. In the telecommunications sector many of these competitive services are subject to price cap or other alternative forms of regulation. In other cases, particularly in states that have undergone retail electric industry restructuring, the rates might be subject to a price cap or a rate freeze. Allowable expenditures will still need to meet some pre-authorized qualifications, or pass tests of prudence and used and usefulness.

However, in a restructured environment, a commission may need to take into account special conditions and consider additional factors in its cost recovery review. Among those special condition and factors might be:

- Existing rate freezes or caps.
- The existence of provider-of-last-resort requirements.
- Applicant specific restructuring plan requirements.
- Existing laws, rules, or guidelines that address recovery of excess costs in the restructured environment.
- Effect of recovery mechanisms on market development or competitive neutrality.
- Policy considerations of guaranteed cost recovery in an open market.

## No Recovery Allowed

In a fully competitive market, where the requirements for retail service tariffs have been removed, or where rates are now market-based, it may be as simple as saying that ***security-related critical infrastructure expenditures are (like other expenditures) business decisions subject to recovery only as the market will bear*** and not subject to guaranteed recovery through a commission order. For example, if local telecommunications services were deemed to be fully competitive by a state commission, and all providers were subject to the same service standards, even if some basic local rates are still fully regulated, a commission might deny allowance of a guaranteed specific recovery for critical infrastructure investments since all providers would be equally burdened in the competitive market.

Other considerations as discussed below notwithstanding, a similar conclusion might also be reached in a restructured energy market. Generally speaking, in a restructured energy market traditional retail rate controls are replaced with market-based rates. As detailed in a recent report on electric restructuring transition periods, exactly when the market-based rates did or will take

over varies from state-to-state.[29] However, if market-based rates have replaced the traditional non-market rates, a commission might deny recovery allowance of a claimed critical infrastructure expenditures made without a specific government mandate, based on the finding that the expenditure was a competitive marketplace business decision.

## Rate Case for Distribution

The utility markets in most states may not be at a level of competition that would give state commissions enough comfort to simply deny cost recovery based on the above arguments – that the investments are equal burdens for all providers or competitive business decisions not eligible for guaranteed cost recovery. A possible scenario in a restructured environment may be the need for state commissions to consider security cost recovery from still regulated services with a mix of rate types (e.g., market-based, capped, frozen, and standard cost-based) and a mix of regulatory scenarios (e.g., negotiated rate settlements, statutorily restricted rates, and alternative or incentive plans).

Assuming a state commission has not issued a *prime facie* dismissal of an applicant's request for cost recovery, the commission will proceed to review that request. If the filing is by an electric utility service provider in a state with electric retail competition, the commission must consider the conditions of that restructuring in its review of the request. We can assume that since most restructuring was in place (or well on its way to being so) prior to September 11, 2001, that recovery of critical infrastructure expenditures was not specifically addressed in most restructuring rules and regulations. While some states have subsequently specifically addressed the recovery of critical infrastructure related costs, according to the NARUC/NRRI survey, 83% of the states do not have specific rules or guidelines.[30] Consequently, a state may likely have to develop guidelines, practices, and precedents as they examine the filings and consider the restructuring conditions.

The easiest review of a security-related cost recovery request will likely be for those expenditures that were to comply with a government mandate to enhance critical infrastructure or security. A state or federally mandated security investment would only require the commission to determine that the investment was made according to the mandate to approve the recovery. How that recovery was implemented could depend on the amount of the recovery and the restructuring conditions. It may be possible for a state to treat the recovery of the expenditure through the traditional process of regulating and setting regulated service rates. ***However, restructuring conditions may have placed caps or freezes on the retail rates.[31] In which case, a commission may need to consider other treatment and recovery protocols such as special line item charges and/or deferred recovery after a rate freeze.*** For example, Michigan statute has placed a cap (for large electric utilities) on retail rates that could extend until the end of 2013, depending upon a market test. The statute mandates that excess or new expenses shall be accrued and deferred. Such deferrals will be subject to commission determination of the amount of reasonable and prudent costs, if any, to be recovered after the rate cap is removed.[32]

In addition to recovery of the approved costs from an applicant's retail customers, a commission may need to consider the market neutrality of cost recovery in a competitive market. In some states, recovery rules for restructured markets may clearly define from whom a covered utility service provider can recover security-related costs. In Michigan allowable security-related expenses can only be recovered from the retail customers of the "covered utility."[33] However, if existing regulations or laws do not specify from whom these costs can be recovered, the question must be considered. If a local distribution company incurs an allowable critical infrastructure expense, it may be appropriate for the commission to implement recovery of that expense from not only the retail customers of that distribution company, but also from any competitive providers that sell service to customers over the applicant's distribution system.

Finally, the existence of ***provider-of-last-resort (POLR) requirements may also be a factor in a commission's review of a security related investment.*** An applicant that has the burden of an explicit POLR requirement may be able to justify more robust critical infrastructure investments, if such investments are prudently incurred to assure that it can provide service to all customers in a market – including, if necessary, those that are now served by other competitive providers.

# 12. Cost Recovery Mechanisms and Case Studies

The three cost recovery protocols use different logic to implement cost recovery mechanisms. The protocols establish the process and regulatory framework needed to use the cost recovery mechanisms examined below. A cost recovery mechanism is the actual technique state regulators use to authorize a utility to recover some, all, or none of the monies they have requested. A variety of cost recovery methods exist, ranging from ones that make this determination through automatic adjustment clauses to more elaborate mechanisms, such as a rate case. Since 9/11, a number of state commissions have responded to utility cost recovery requests. The cost recovery mechanisms examined below are all reasonable approaches these states have used and no one is recommended over another as the circumstances in different states may make one method more appropriate. Figure 12 highlights the five main cost recovery mechanisms identified by commissions as being useful with respect to security related expenses.

**Figure 12: Cost Recovery Mechanisms**

**Cost Recovery Mechanisms**

- Base rate changes to tariffs
- Adjustment clauses
- Deferral accounts
- Line item changes
- Closed proceedings

## Base Rate Changes to Tariffs

The clear majority of the critical infrastructure cost recovery activities identified in our survey of the states was either immediately or ultimately part of a rate case proceeding that resulted in base rate tariff changes. Even the adjustment clauses described below are actually part of a base rate tariff settlement process.

A number of states surveyed indicated that they had rate cases in process, ones where utilities had security costs identified, but that since the commission had not made a final decision or issued an order, nothing definitive could be said.[34] Other states said that they had rate filings from utilities, but that their initial review of the filing did not reveal any distinctly identified critical infrastructure protection costs. Incremental security costs may or may not be subsequently revealed in the course of these rate cases.

Some states surveyed have reportedly learned from their jurisdictional electric and natural gas utilities that the utilities do not intend to file for critical infrastructure cost recovery for a variety of reasons. These reasons include:

- A concern about the confidentiality of the data.
- The desire to avoid having to develop and share detailed cost data on a facility-by-facility basis.

States have addressed these issues in several ways.[35] In New York, a restructured state with a future test year, existing rate processes are used to deal with security cost recovery issues. The New York Public Service Commission has used a variety of cost recovery mechanisms that include:

- Consideration of settlements;
- Forecast reconciliations; and
- Deferral of carrying charges.

Furthermore, utilities that are under-earning can file for deferral under Commission rules. Respondents in some states noted that some utilities said that the security costs were not sufficient to warrant initiating a regulatory proceeding. In California, Pennsylvania, and perhaps in other states, it was felt that the lessons learned and institutionalized from Y2K, earthquakes, fire, and other natural disasters made critical infrastructure protection more of an incremental cost. In other words, ***many utilities already have considerable experience planning and responding to significant service protection and service restoration scenarios***. Incremental security costs could occur, but it was thought these costs would be much lower than if utilities were starting from scratch in their disaster planning.

Other states have reported that they have not established separate or special efforts to recover security-related expenses. Generally, states in this situation report no current security cost recovery requests before them. While their treatment is speculative, these states tend to say that security expenses would be treated and evaluated like any other operating expense in order to verify costs, assess reasonableness, and to determine whether all or part of the costs would be recovered. Maine noted that it would refer to NARUC's preliminary cost recovery guidelines. Other states in a similar situation include Arkansas and Iowa. Iowa has had regulated utilities seek Iowa Board approval for at least $1.6 million in rate base and $982,000 in operations and maintenance for post 9/11 security-related expenses. In a MidAmerican Energy gas rate case, the company requested and was granted an increase in rate base of $780,375.[36] In an Interstate Power & Light electric rate case, the company requested and was granted an additional $938,000 in rate base adjustment for increased security at its nuclear power plant.[37]

The rate case implications for other states include the following considerations:

- No critical infrastructure-only or security-only tariffs, or riders, or surcharges were identified in these cases.
- Approved security costs were included in adjustments to the general tariff.
- Utilities often do not make identifiable infrastructure protection cost recovery requests.
- Security costs specifically under consideration and approved are incremental costs attributed to responses to the post 9/11 threat environment. Base or existing security costs do not appear to have been examined.
- A number of states had cases pending that addressed cost recovery in the context of a general rate case and no conclusions can be drawn about these cases until the commissions act.
- Water utilities have made a number of filings.
- Commissions appear to tend to grant the requested rate base increases attributed to increased security costs.
- While there is not a lot of information, what data that does exist suggests that the incremental post 9/11 critical infrastructure security costs have a modest rate impact.

## Adjustment Clauses

The Florida Public Service Commission (FPSC) initially used its fuel adjustment clause and now uses its capacity cost recovery clause to allow recovery of incremental security costs incurred in response to 9/11.[38] In its first order the FPSC responded to the following stipulation:

> The commission should continue to monitor the nature and longevity of incremental security costs being recovered through a cost recovery clause to determine whether and to what extent such costs should be recovered through base rates. Security costs have traditionally been recovered through base rates, although in Order No. PSC-01-2516-FOF-El, issued Dec. 26, 2001, the commission authorized Florida Power & Light Company to recover incremental

security costs due to recent national security concerns through the fuel adjustment clause.[39]

The FPSC approved the stipulation and said that the Florida Power & Light Company and the Florida Power Corporation's incremental security costs shall be reassessed at the conclusion of settlements in their most recent base rate proceedings.[40] The FPSC then acted to address company-specific cost recovery issues.

For incremental 2002 and 2003 security costs, Florida Power & Light Company (FP&L) requested $12.7 million for costs incurred to comply with directives in Nuclear Regulatory Commission Order No. EA-02-26. Two parties opposed the request based on an earlier settlement and order that said, "FP&L will not use the various cost recovery clauses to recover new capital items which traditionally and historically would be recoverable through base rates."[41] Approximately $1.3 million of the cost recovery request included items that would normally be classified as capital items.

FP&L's 2001 security costs had been approved for recovery using the fuel adjustment clause because of the "...nexus between the protection of nuclear generation facilities and the fuel cost savings that result from the continued operation of those facilities." Further, recognizing that the costs were not clearly defined, the FPSC stated it retained the ability to consider an alternative cost recovery mechanism at a later time.[42] For FP&L's 2002 and 2003 security costs the FPSC found that these costs do not clearly fall within the classification of "items which traditionally and historically would be recoverable through base rates" and approved recovery through a cost recovery clause. Because these costs were seen as extraordinary, recovery (without distinction between capital and expensed items) these costs are treated as current year expenses, and accounted for separately.

The FPSC concluded by stating: "We find that these costs shall be reassessed at the conclusion of the term of the Settlement and Stipulation approved in Order No. PSC-02-0501-AS-EI to determine whether these costs should continue to be recovered through a cost recovery clause or would more appropriately be recovered through base rates."[43] The $12.7 million was authorized for cost recovery. Additional information about Florida's use of the adjustment clause approach is found in Appendix B.

Several implications from the Florida adjustment clause example for other state commissions are readily apparent:

- Only incremental security costs were addressed.
- The company-specific proceedings were initially guided by a stipulation in an earlier proceeding.
- The FPSC accepted one cost recovery mechanism at one point in time, but felt another mechanism (the cost recovery clause) to be more appropriate later.
- While capital costs were identified, all security costs were recovered in the current year.
- Cost recovery requests were documented by reference to federal directives and orders.

- The commission required that incremental security costs be accounted for separately, allowing for auditing.
- The specific utility filings had to consider other relevant regulatory proceedings and orders.

## Closed Proceedings

With the exception of Kansas, no closed cost recovery proceedings *per se* were identified. State commissions occasionally used a stipulation process to address security issues. Sometimes commissions approved final rates without specifying what portion of the increase was attributable to existing or post 9/11 security costs. Most states have addressed the issue of confidentiality, as noted elsewhere in this report.

In 2002, Kansas passed a statute requiring the commission to allow utilities to recover expenses that the commission deemed appropriate to secure electric generation or transmission assets or natural gas production and transportation assets.[44] The costs are to be passed through to utility customers' bills. ***The statute directed that the applications for security cost recovery be reviewed in an expedited and confidential manner.***

The Kansas Corporation Commission (KCC) subsequently investigated how to handle requests for security cost recovery and issued an order adopting rules on January 31, 2003.[45] The commission set a target of a 60-day review period on applications, and specified how applications should be identified so as to receive immediate confidential treatment. The commission said it will allow for recovery through its usual manner of depreciation and approved rate of return.

In 2003, Kansas passed the Energy Security Act.[46] The act is specifically intended to address the recovery of enhanced security expenses incurred after the attacks of Sept. 11, 2001. It stated further that:

- The recovery period must be within half of the usable lifetime of the investment.
- Confidentiality exists as to the amount of recovery requested and allowed, as well as the method of recovery requested and allowed.
- The commission must provide protective orders on all filings so that a public watchdog group, the Citizens' Utility Ratepayer Board, may review documents if the board intervenes.
- The security cost recovery charge applies to both retail and wholesale rates, and shall not be identifiable on customers' bills.

With reference to the finding that the threat of terrorism require the government to take extra measures to protect the public welfare, the act notes that the commission's decision on the prudence of a security expenditure should, "not be based on standard regulatory principles and methods of recovery and shall take fully into account the findings and intent of the legislature."[47]

The implications for other state commissions considering a closed proceeding include:

- How procedures may be designed to allow consumer groups access to information.
- That authority may be established that allows a commission to use nonstandard regulatory principles due to critical infrastructure protection concerns.
- That confidentiality may be awarded regarding the amount requested and allowed to a utility for critical infrastructure protection costs.

## Deferral (Balancing) Accounts

Deferral accounts were commonly used by state commissions in conjunction with a number of other cost recovery mechanisms in order to allow a utility to accumulate costs that could then be subsequently recovered in a rate case hearing. One interesting example of this occurred in Michigan, where the Michigan legislature amended its Public Utility Chapter that, among other things, defined "enhanced security costs", effectively established deferral accounts, and authorized a security cost recovery factor.[48]

Enhanced security costs include increases in the cost of insurance that are attributable to an increased terror related risk and the costs of maintaining or restoring electric service as the result of an act of terrorism.[49] Michigan's definition allows for costs in response to federal or state requirements.

> ***The Michigan statute defines "enhanced security costs" as reasonable and prudent costs of new and enhanced security measures incurred before January 1, 2006 for an electric generating facility by a covered utility that are required by federal or state regulatory security requirements issued after Sept. 11, 2001 or determined to be necessary by the commission to provide reasonable security from an act of terrorism.*** (See Michigan Compiled Law, Chapter 460, Act 3 of 1939, Section 460.10d (17) (c)).

Once these costs have been identified by the utility, the utility may apply to the commission to recover enhanced security costs for an electric generating facility through a security recovery factor. Due to the implementation of a rate cap, allowed cost recovery is to be accrued and deferred until the rate cap is removed. Allowed security costs can only be incurred between Sept. 11, 2001 and January 1, 2006. The Michigan commission then retains the oversight authority to determine which costs in the deferral account are to be recovered, as described in more detail in the following section.

The implications for other states considering using deferral accounts include that:

- Deferral accounts are a well established and widely used regulatory cost recovery method..
- Deferral accounts allow costs to be identified and accounted for, but may not necessarily bind a commission on how the identified costs will be treated.
- Deferral accounts are only appropriate in instances where the commission will consider cost recovery.

## Security Recovery Factor Charges

Michigan's security recovery factor allows the commission to decide if identified security costs will be eligible to be included in rates for retail customers. In determining the security recovery factor, the commission shall only include costs that the commission determines are reasonable and prudent and that are jurisdictionally assigned to retail customers of the covered utility in this state. The costs included shall be net of any proceeds that have been or will be received from another source, including, but not limited to, any applicable insurance settlements received by the covered utility or any grants or other emergency relief from federal, state, or local governmental agencies for the purpose of defraying enhanced security costs. In its order, the commission shall designate a period for recovery of enhanced security costs, including a reasonable return on the unamortized balance, over a period not to exceed 5 years. The security recovery factor shall not be less than zero.

The statute allows a "covered utility" utility to seek recovery. A "covered utility" is further defined as an incumbent utility subject to the rate cap provision of the statute amendment.[50] Allowable costs must be recovered through an unbundled "security recovery factor" on retail customers of the covered utility.

The implications for other states relative to line item charges are that:

- Insurance and federal or state governmental funds may need to be considered before a cost request is made.
- A presumption may exist that a utility should have a record that shows that they have examined the use of insurance or governmental funding.
- Commissions apply cost recovery standards that may include various combinations of used and useful, prudence, just and reasonable tests, and compliance with governmental decrees.
- There are no distinctions between capital investments and expense items.
- A recovery time period may be specified.

## Other Cost Recovery Mechanisms

Several other cost recovery efforts have been identified. These include the following:

- **Notice of Inquiry.** The Oklahoma Corporation Commission (OCC) initiated a Notice of Inquiry approach to address a number of critical infrastructure issues, including cost recovery.[51] The inquiry covered electric, natural gas, water, and telephone utilities and is now being continued as a Notice of Proposed Rulemaking. While not a unanimous consensus, there appeared among the utilities a preference for rulemaking rather than legislation to address cost recovery. The inquiry approach allowed the OCC to formally and publicly have specific cost recovery questions answered by an array of stakeholders. It did not bind the commission, but provided a forum to hear concerns.

- **Ongoing Dialogue.** New Jersey, through the New Jersey Infrastructure Advisory Committee, has established utility industry working groups that meet regularly and discuss a number of issues, including how utility infrastructure protection is being financed. Through an examination of best practices, New Jersey has created comprehensive guidelines for security, incorporating state and federal standards. Ohio notes it has informally polled utilities as they file rate cases, finding that the smaller companies have not reported doing anything extraordinary regarding security. In two larger utilities security costs were an issue only for one, and the issue centered on disclosure of security sensitive information.

- **Special Infrastructure Cost Recovery Proceeding.** The Connecticut legislature enacted Public Act No. 02-94 to ensure that ratemaking considerations included the "reasonable costs of security assets, facilities and equipment that are incurred solely for the purpose of responding to security needs associated with the terrorist attacks of Sept. 11, 2001, and the continuing war on terrorism."[52] This statute was subsequently amended to include gas and electric utilities rate plans that have earnings sharing mechanisms. Two companies applied to the Connecticut Department of Public Utility Control for cost recovery: Connecticut Natural Gas Corporation (CNG) and The Southern Connecticut Gas Company (CSG).[53] CNG requested recovery of $219,899 in actual and $1,281,078 in forecasted, annualized and on-going expenditures. CSG requested recovery of $137,636 in actual and $564,062 in forecasted, annualized and on-going expenditures.

  The Department found the actual costs to be reasonable and allowed recovery in each company's next rate case proceeding.[54] The Department found that the proposed forecasted costs were not known and measurable at this time. Accordingly, these expenditures could not be deemed reasonable and prudent and further review will be undertaken in the next rate cases. The Department also denied the companies' request to reopen their respective rate case proceedings in order to implement a proposed rate rider to recover post-September 11 security-related enhancements.

Action here by Connecticut has implications for other states that include:

- Affirmation that cost recovery explicitly requires a finding of prudence.
- A single-purpose proceeding on critical infrastructure cost recovery is feasible.
- Reliance on a rate case for actual recovery.
- A cost-recovery approach for utilities with earnings sharing plans can be designed.
- Both a legislative and regulatory focus on critical infrastructure cost recovery.
- Results that seem to indicate that incremental infrastructure costs may be significant but are not overwhelming.

# 13. SUMMARY

The cost recovery protocols and cost recovery mechanisms identified in this report clearly show that state regulatory commissions have acted to allow cost recovery of prudently incurred critical infrastructure protection costs. Four important summary observations are:

*1)* Cost recovery activities have occurred and been allowed in both traditionally regulated states as well as in restructured states.
*2)* Cost recovery mechanisms employed have been nested in rate cases.
*3)* State legislatures have enacted legislation, but in no case did the legislation override a commission's underlying obligation to ensure that only prudent or reasonable, costs were eligible for cost recovery.
*4)* An expectation exists that insurance should be part of a utility's cost recovery planning.

In some states, security costs were examined in a regulatory proceeding and allowed without a lot of elaboration. In other instances, commissions had more documentation on their cost recovery rationale. In both approaches, state regulators unmistakably affirmed their support for ensuring that critical utility infrastructure is protected. Unlike other policy debates where cost recovery issues become debating points for opposing sides, no significant regulatory debates were observed, once the reasonableness or prudence of the costs was established. Regulators have a long tradition of examining, selecting, and using the most appropriate cost recovery mechanisms available to them. This report shows that regulators have used a variety of cost recovery mechanisms, both in restructured and traditionally regulated states. While difficult to document, the post 9/11-security costs appear incremental. These cost mechanisms are similar to those identified by the National Conference of State Legislatures (NCSL) shown in Appendix C. They have not been big-ticket expenditures, and state regulators have largely seen them as prudent and eligible for cost recovery.

# APPENDIX A

## FERC ORDER 630 AND THE PROTECTION OF CRITICAL INFRASTRUCTURE INFORMATION

The Federal Energy Regulatory Commission (FERC) issued a Final Rule in Order 630 on Feb. 20, 2003 on the protection of critical energy infrastructure information. [55] FERC defines critical infrastructure broadly to include "existing and proposed systems and assets, whether physical or virtual, the incapacity or destruction of which would negatively affect security, economic security, public health or safety, or any combination of those matters." ***Though the context of FERC Order 630 is limited to the protection of critical energy infrastructure information in FERC's possession***, FERC's definition of critical energy infrastructure could be a useful basis for creating a definition that states could use to help determine whether an existing system or asset should generally be considered to be critical energy infrastructure.

However, some issues are raised if the broad definition is applied "as is" to cost recovery. The first issue is one of "existing" versus "proposed." The need to protect the sensitive information of a "proposed" critical infrastructure system or assets from unnecessary disclosure is easily understood. However, granting cost recovery for a "proposed" system or asset investment is a larger question and requires more consideration. Under this definition, a commission would be asked to essentially grant pre-approval for "proposed" expenditures to be made in the future. Assuming a state commission wishes to grant approval of the proposed expenditure, it may take one of several approaches. Three common approaches would include the following. It could approve the proposed expenditure as submitted and say nothing further regarding the approval of future similar requests. The commission could approve the expenditure and in its order make clear that the approval was based solely on the merits of the individual rate case and was not precedent setting for future recovery requests of "proposed" systems or assets. Or the commission could approve the expenditure subject to a true-up of the actual recoverable amount following a decision on the type of expenditure in a commission generic proceeding, or following the applicant's submission of actual expenditure records.

Deciding an issue such as recovery of for "proposed" systems or assets in a generic proceeding does offer a commission the opportunity to more broadly examine an issue. However, ***generic cases are generally very open and protracted proceedings***. This may make generic proceedings unsuitable for some critical infrastructure issues. Furthermore, a conditional approval subject to a generic proceeding or future true-up may not provide adequate certainty to an applicant. At best, it would provide a high degree of probability of some recovery, but would tell the applicant it may proceed, but should do so very cautiously.

The second issue with the FERC definition that a state commission must face is one of limiting the definition of what would "negatively affect security." Existing security and protection systems and assets whose loss would negatively affect security are clearly used and useful

critical infrastructure. However, it might be possible to argue that a current or proposed system that does not directly enhance some aspect of security by its operation or addition, will actually have this effect when incapacitated or destroyed. For example, it might be possible for an applicant to argue that a new roof on its executive building, while not directly enhancing security would, if destroyed, negatively affect security. A commission must ask the question: Can a system or asset be considered used and useful or prudent if it does not directly enhance some aspect of security? In a network composed of many joint and common costs, this may be difficult.

***A commission must ask the question:***

***Can an asset be considered used and useful or prudent if it does not directly enhance some aspect of security?***

# APPENDIX B

## RECOVERING CRITICAL INFRASTRUCTURE PROTECTION COSTS THROUGH ADJUSTMENT CLAUSES

The Florida Public Service Commission used the same cost recovery approach, with a few differences, in two cases. In one, the Florida Power Corporation (FPC) requested recovery of approximately $7.8 million for 2002 and 2003 security costs incurred in compliance with Nuclear Regulatory Commission Order No. EA-02-26. Approximately $4.1 million were costs that would normally be classified as capital items. Two parties opposed the request for the same reason noted above. The FPSC concluded stating "Finally we find that these costs shall be reassessed at the conclusion of the term of the Settlement and Stipulation approved in Order No. PSC-02-0655-AS-El to determine whether these costs should continue to be recovered through a cost recovery clause or would more appropriately be recovered through base rates." (See Order No. PSC-02-1761-FOF-El, Docket No. 020001-El, p. 11.) The $7.8 million was authorized for cost recovery.

In another case, Tampa Electric Company (TECO) requested recovery of approximately $1.2 million for incremental operation and maintenance expenses associated with 2001, 2002, and 2003 security costs. TECO's witness noted these costs were not in compliance with any government mandate, but were consistent with guidelines developed by Presidential Homeland Security directives and North American Electric Reliability Council actions. A TECO witness indicated that TECO anticipated moving these costs into base rates at TECO's next traditional rate case. The PSC indicated that it found such treatment reasonable and approved recovery of the $1.2 million through the capacity cost recovery clause. The costs are to be treated as current year expenses and shall be separately accounted for auditing purposes. (See Order No. PSC-02-1761-FOF-EI, Docket No. 020001-EI, p. 15.)

# APPENDIX C
# NATIONAL COUNCIL OF STATE LEGISLATURES[1]

## PAYING FOR ENERGY SECURITY

Energy security may be costly and will require energy companies to make new investments in energy facilities that they had not previously expected. Some of these investments may be for new equipment and others may be for additional employees and security personnel. Some companies –such as oil companies- that operate in competitive markets and are not price-regulated, will make the investments as they see fit and will seek to lower costs and increase efficiency elsewhere in their business or perhaps raise prices to the extent the market allows. Companies that operate in regulated, monopoly markets –including gas, telecommunications, electric and some water companies- operate in a more public environment where state or federal officials oversee the rates they can charge.

### How Much Detailed Oversight and Approval Should Utility Commissions Have Over Cost Recovery?

State policymakers, primarily through their utility commissions, must balance the need to oversee the utilities they regulate with the desire to allow them to manage the details of their security measures. Utilities do this with some assurance that the regulatory commissions will approve their prudently incurred costs. Each state will need to develop its own approach to how it allows utilities to recover their security-related costs. In every situation, it may be prudent for the state and the regulated utilities to collaborate and to determine a common strategy for addressing security issues. This common strategy could make utilities more certain that they would later be able to recover their costs.

**Table 3. NCSL Solution Menu**

| Condition | Solution Menu |
|---|---|
| Regulated utilities, no rate cap or freeze | 1. Address security costs in next rate case.<br>2. Allow commission to allow quick pass-through of security costs through normal regulatory process.<br>3. Enact legislation to ensure recovery of security-related costs, with specified commission oversight. |

[1] The National Conference of State Legislatures is the bipartisan organization that serves the legislators and staffs of the states, commonwealths and territories. The material in this appendix is an except from Matthew H. Brown, Christie Rewey, and Troy Gagliano, *Energy Security* (Washington, D.C., 2003), pp. 48-52.

| | |
|---|---|
| Regulated utilities with soft rate cap | 1. Address security costs in next rate case.<br>2. Allow commission to allow quick pass-through of security costs through a special surcharge.<br>3. Enact legislation to ensure recovery of security-related costs, with specified commission oversight. |
| Regulated utilities with hard cap | 1. Enact legislation to ensure recovery of security-related costs, with specified commission oversight.<br>2. Allow commission, through regulatory process, to set up a "deferral" account for utility to recover prudent costs at a later time. |

# ENDNOTES

[1] The National Association of Regulatory Utility Commissioners (NARUC) Ad Hoc Committee on Critical Infrastructure's Cost Recovery Workshops took place in Denver, Colorado, June 28, 2003, and in Washington, D.C., October 23-24, 2003.

[2] It may be that September 11 is not the key date for drawing a comparison in utility security expenditures. In 1998 the President's Commission on Critical Infrastructure Protection involved utilities and regulators in its outreach activities. In preparation for Y2K, the Federal Emergency Protection Agency (FEMA) conducted ten regional workshops that included utilities and state regulators.

[3] Price caps generally have an exogenous adjustment factor that allows a utility to request cost recovery for extraordinary expenditures caused by circumstances outside the control of the utility. However, exogenous adjustments are unusual because all costs of a utility (those that have increased and those that have decreased) since base price caps were established would likely have to be examined. Incremental security cost increases, while significant, may not have reached the extraordinary cost threshold.

[4] A working group created by Commissioner Connie Hughes immediately following 9/11 has, for example, continued to function as a workable way to talk about critical infrastructure issues.

[5] See Florida Public Service Commission, Order No. PSC-02-1761-FOF-El and Florida Public Service Commission, Order No. PSC-01-2516-FOF-El.

[6] See 2003 Kansas HB 2374, codified as Kansas Statute Nos. 66-1234, 66-1235, and 66-1236.

[7] Michigan Compiled Law, Chapter 460, Act 3 of 1939, Section 460.10d (17) (c).

[8] See Oklahoma Corporation Commission, Case No. PUD 200300624.

[9] *FY 2005 Congressional Performance Budget Request*, FERC, February 2004, p. 34. Report is available at http://www.ferc.gov/about/strat-docs/FY05-Budg.pdf.

[10] Ibid., p. 85.

[11] Greg Frank, Frank Cox, Ray Dominquez, "*Homeland Security – Battelle's Capabilities*," presented to The Ohio State University, March 5, 2002, p. 2.

[12] For more information on cost allocation issues, see Robert Burns, et al., *Regulating Electric Utilities with Subsidiaries*, No. 85-16 (Columbus: NRRI, 1986).

[13] See Florida Public Service Commission, Ibid.

[14] State of Connecticut Public Act 02-94, codified as Connecticut General Statute 16-19e(a)(4): subsequently amended to include a new subsection g.

[15] Joe McGarvey and John Wilhelm, *NARUC/NRRI 2003 Survey of Critical Infrastructure Security*, No. 04-01, (Columbus: NRRI, 2004), p. 9-10.

[16] Duquesne Light v. Barash, 488 U.S. 299 (1989).

[17] For more on the prudence test, see Robert Burns, et al., *The Prudent Investment Test in the 1980s*, No. 84-16 (Columbus: NRRI, 1985).

[18] Michigan Compiled Law, Chapter 460, Act 3 of 1939, Section 460.10d.

[19] Michigan Compiled Law, Chapter 460, Act 3 of 1939, Section 460.10d (13).

[20] In the NARUC Cost Recovery Workshops the distinction between standards and guidelines was drawn. Standards are mandatory, but increase the probability of cost recovery. Guidelines permit regional flexibility, but as they permit more leeway, may have less cost recovery certainty.

[21] *Security Guidelines for the Electricity Sector*, North American Electric Reliability Council, issued June 14, 2002, available at http://www.esisac.com/publicdocs/Guides/SecurityGuidelinesElectricitySector-Version1.pdf; and *Urgent Action Standard 1200 – Cyber Security*, North American Electric Reliability Council, issued August 13, 2003, available at ftp://ftp.nerc.com/pub/sys/all_updl/standards/Urgent-Req-CyberStnd-3-3121.pdf.

[22] *Pipeline Security Information Circular* and *Pipeline Security Contingency Planning Guidance*, Department of Transportation, Office of Pipeline Safety, issued September 5, 2002; these documents are not publicly available.

[23] In its guidelines, OPS notes that in addition to its *Pipeline Security Information Circular* and *Pipeline Security Contingency Planning Guidance* documents, it also relies on the industry consensus security guidance documents for purposes of evaluating the security plans of pipeline operators. Specifically, the American Petroleum Institute's *Guidelines for Developing and Implementing Security Plans for Petroleum Pipelines,* issued July 2002, are used in reference to hazardous liquid pipelines, and the American Gas Association and Interstate Natural Gas Association of America's *Security Guidelines: Natural Gas Industry, Transmission, and Distribution*, issued September 2002, are used to help evaluate natural gas transmission and distribution lines. The above documents are not publicly available.

[24] *NRIC Best Practices*, The Network Reliability and Interoperability Council, issued various years, available at http://www.bell-labs.com/cgi-user/krauscher/bestp.pl.

[25] See "National Drinking Water Advisory Council's Water Security Working Group Meeting Announcement," *Federal Register*, Vol. 69, No. 118, (June 21, 2004), p. 34351, available at

http://frwebgate.access.gpo.gov/cgi-in/getdoc.cgi?dbname=2004_register&docid=fr21jn04-42.pdf.

[26] Public Law 107-188, 107th Congress, 2nd Session, (June 12, 2002), Sec. 401.

[27] McGarvey and Wilhelm, *NARUC/NRRI 2003 Survey of Critical Infrastructure Security*, p. 3.

[28] Ibid., p. 9-10.

[29] Scott Potter, *After the Freeze: Issues Facing Some State Regulators as Electric Restructuring Transition Periods End*, No. 03-18 (Columbus: NRRI, 2003).

[30] McGarvey and Wilhelm, *NARUC/NRRI 2003 Survey of Critical Infrastructure Security*, p. 3.

[31] Several states have frozen retail service rates during specified periods of transition to competitive markets. A rate freeze or cap may be any or all components of a retail rate. For example, in Ohio a stipulation approved with Dayton Power & Light froze transmission and distribution rates and capped generation rates through 2008; see Public Utilities Commission of Ohio, Case No. 02-2779-EL-ATA. For a summary of electric restructuring transition period details see Scott Potter, *After the Freeze: Issues Facing Some State Regulators as Electric Restructuring Transition Periods End*, No. 03-18 (Columbus: NRRI, 2003).

[32] Michigan Compiled Law, Chapter 460, Act 3 of 1939, Section 460.10d (4).

[33] That is to say the large utilities subject either to the rate cap and/or a previous orders in Michigan Public Service Commission cases U-11181-R and U-12204. See Michigan Compiled Law, Chapter 460, Act 3 of 1939, Section 460.10d (17) (b) and (d).

[34] States surveyed reporting pending electric and natural gas rate cases include Arizona, Maine, Ohio, New Hampshire, and Pennsylvania.

[35] In Ohio and New Jersey, water utility rate cases have had a stipulation settlement that effectively made it difficult to link specific security costs to the specific, approved rate items. In a Pennsylvania investor-owned water utility, incremental security costs were approved, but the case is on appeal by the consumer advocate. The Missouri Commission approved a two-year deferral of security costs for a water utility.

[36] See Iowa Utilities Board, Docket No. RPU-02-2.

[37] Ibid., Docket Nos. RPU-02-3 and RPU-02-8. In addition, Iowa American Water Company was granted recovery of $900,781 in operating expenses as part of a rate case, RPU-01-04. The security measures were presented to the Iowa Board at the end of the case and were allowed to constitute a portion of the negotiated settlement only after sufficient notice had been given to customers. The Iowa Board did not receive any comments or objections.

[38] See Florida Public Service Commission, Ibid.

[39] Ibid., Order No. PSC-02-1761-FOF-El, p. 3-4.

[40] Ibid., Docket Nos. 001148-EI and 000824-El.

[41] See Ibid., Order No. PSC-02-0501-AS-El.

[42] See Ibid., Order No. PSC-01-2516-FOF-El.

[43] Ibid., Order No. PSC-02-1761-FOF-El, Docket No. 020001-El, p. 7.

[44] Kansas Statue No. 66-1233.

[45] Kansas Corporation Commission, Docket No. 03-GIMX-431-GIV.

[46] See 2003 Kansas HB 2374, codified as Kansas Statute Nos. 66-1234, 66-1235, and 66-1236.

[47] Ibid., Sec. 3(8)(b).

[48] Michigan Compiled Law, Chapter 460, Act 3 of 1939, Section 460.10d (17) (c).

[49] Ibid., Section 460.10d (17) (c).

[50] Ibid., Section 460.10d (17) (b).

[51] See Oklahoma Corporation Commission, Case No. PUD 200300624.

[52] See State of Connecticut Public Act 02-94, codified as Connecticut General Statute 16-19e(a)(4).

[53] See Connecticut Department of Public Utility Control, Docket No. 03-06-17.

[54] The California Commission rejected a water utility request for a memorandum account for security costs, preferring to address the issue in a general rate case. See California Public Utility Commission Decision D0310070 on Proceeding A0308009.

[55] United States of America Federal Energy Regulatory Commission 18 CFR Parts 375 and 388 (Docket Nos. RM02-4-000, PL02-1-000; Order No. 630), issued February 21, 2003.

# GOODMAN WATER COMPANY

# DOCKET NO. W-02500A-10-0382

# SURREBUTTAL TESTIMONY

# OF

# WILLIAM A. RIGSBY, CRRA

# ON BEHALF OF

# THE

# RESIDENTIAL UTILITY CONSUMER OFFICE

# JUNE 13, 2011

## TABLE OF CONTENTS

INTRODUCTION ..... 1

SUMMARY OF RECOMMENDATIONS ..... 2

COMPARISON OF PROPOSALS AND RECOMMENDATIONS ..... 2

- Capital Structure ..... 2
- Cost of Debt ..... 3
- Cost of Equity ..... 3
- Weighted Average Cost of Capital ..... 4

SUMMARY OF REBUTTAL TESTIMONY ..... 5

RESPONSE TO REBUTTAL TESTIMONY ..... 5

- Sample Utilities ..... 15
- CAPM Analysis ..... 17
- Capital Structure ..... 28
- Cash Flow ..... 30
- Cost of Debt ..... 32
- DCF Analysis ..... 34

EXHIBIT 1 – Wall Street Journal "Utilities" article

EXHIBIT 2 – Excerpt from Valuation: Measuring and Managing the Value of Companies

EXHIBIT 3 – Excerpt of Paper by Aswath Damodaran

ATTACHMENT A – Value Line Water Utility Industry Update

ATTACHMENT B – Value Line Natural Gas Utility Industry Update

ATTACHMENT C – Zacks Earnings Projections

ATTACHMENT D – John D. Markman Article

ATTACHMENT E – Excerpt from Valuation

ATTACHMENT F – Value Line Selected Yields

Surrebuttal Schedules WAR-1 through WAR-9

## INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My Name is William A. Rigsby. I am a Public Utilities Analyst V employed by the Residential Utility Consumer Office ("RUCO") located at 1110 W. Washington, Suite 220, Phoenix, Arizona 85007.

Q. Have you filed any prior testimony in this case on behalf of RUCO?

A. Yes, on March 21, 2011, I filed direct testimony with the Commission on RUCO's cost of capital recommendations for GWC.

Q. Please state the purpose of your surrebuttal testimony.

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of GWC witnesses Thomas J. Bourassa, which was filed on May 2, 2011.

Q. Will RUCO be filing surrebuttal testimony on the rate base, operating income and rate design issues in this case?

A. Yes. RUCO analyst Timothy J. Coley will file surrebuttal testimony on the rate base, operating income and rate design issues in this case.

Q. How is your surrebuttal testimony organized?

A. My surrebuttal testimony contains five parts: the introduction that I have just presented; a summary of RUCO's recommendations; a comparison of

the proposals and recommendations of the Company, ACC Staff and RUCO; a summary of the Company's rebuttal testimony; and my response to the Company's rebuttal positions.

## SUMMARY OF RECOMMENDATIONS

Q. Please summarize RUCO's capital structure, cost of debt and weighted average cost of capital recommendations for GWC.

A. RUCO continues to recommend a hypothetical capital structure comprised of 60.00 percent common equity and 40.00 percent debt. RUCO also continues to recommend a cost of common equity of 9.00 percent and a hypothetical cost of debt of 6.13 percent which will provide GWC with a weighted average cost of capital of 7.85 percent.

## COMPARISON OF PROPOSALS AND RECOMMENDATIONS

### Capital Structure

Q. Please compare the Company-proposed capital structure with RUCO and ACC Staff's recommended capital structures.

A. A comparison of the Company's ACC Staff's, and RUCO's recommended capital structures are as follows:

| | Debt | Equity |
|---|---|---|
| Company | 18.4% | 81.6% |
| ACC Staff | 18.4% | 81.6% |
| RUCO | 40.0% | 60.0% |

**Cost of Debt**

Q. Please compare the Company-proposed cost of debt with RUCO and ACC Staff's recommended costs of debt.

A. The Company-proposed cost of debt and ACC Staff's and RUCO's recommended hypothetical cost of debt can be seen below:

| | |
|---|---|
| Company | 8.00% |
| ACC Staff | 8.00% |
| RUCO | 6.13% |

**Cost of Equity**

Q. Please compare the Company-proposed cost of equity with RUCO's and ACC Staff's recommended costs of equity.

A. The revised Company-proposed cost of equity and ACC Staff's and RUCO's recommended cost of equity, are as follows:

| | |
|---|---|
| Company | 10.20% |
| ACC Staff | 9.10% |
| RUCO | 9.00% |

**Weighted Average Cost of Capital**

Q. Please compare the Company-proposed weighted average cost of capital with RUCO's and ACC Staff's recommended weighted average cost of capital.

A. The weighted average cost of capital recommendations of the Company, ACC Staff and RUCO are as follows:

| | |
|---|---|
| Company | 9.89% |
| ACC Staff | 9.00% |
| RUCO | 7.85% |

As can be seen above, the Company-proposed weighted average cost of capital of 9.89 percent is 204 basis points higher than my recommended 7.85 percent weighted average cost of capital. ACC Staff's recommended weighted average cost of capital is 89 basis points lower than the Company's and 115 basis points higher than my recommendation.

## SUMMARY OF REBUTTAL TESTIMONY

Q. Have you reviewed the Company's rebuttal testimony?

A. Yes. I have reviewed the rebuttal testimony of Company witness Thomas J. Bourassa, filed on May 2, 2011, which addresses the cost of capital issues in this case.

Q. Please summarize the Company's rebuttal testimony.

A. Company witness Bourassa is critical of the utilities used in my proxy groups and the CAPM analysis that I conducted in order to arrive at my recommended cost of common equity in this case. Mr. Bourassa also takes issue with the growth estimates that I used in my DCF analysis. Mr. Bourassa further argues that my analysis does not take GWC's size into consideration. He is also critical of my recommended cost of debt and my recommended hypothetical capital structure.

## RESPONSE TO REBUTTAL TESTIMONY

Q. Have you had an opportunity to review updated data on the sample water and natural gas companies used in your cost of capital analysis?

A. I have reviewed more recent SBBI Yearbook and Value Line data on the water utility industry that has been made available or published since my direct testimony was filed. Using this recent information, I have updated my original cost of capital analysis and have included it in my surrebuttal testimony.

Q. Have you made any changes to your water company sample based on the updated Value Line information?

A. Yes. My updated water company sample now includes SJW Corporation (NYSE symbol SJW), a San Jose, California-based water provider which, prior to April of 2011, was included in Value Line's Small and Mid-Cap Edition. SJW serves approximately 226,000 customers in the San Jose area and approximately 8,700 customers in a region located between Austin and San Antonio, Texas.

Q. Does your updated analysis include more recent information on the natural gas LDC's that you included in your original cost of capital analysis?

A. Yes and no. My updated analysis includes more recent adjusted closing stock price information on the sample LDC's, however, the next Value Line quarterly update on the natural gas utility industry will not be available until the week of June 6, 2011. Because of RUCO's workload schedule for that week, I will not be able to update the LDC information presented in my GWC surrebutttal schedules. Since I will be performing a full LDC update in two other rate cases during the week of July 6, 2011, I will present the LDC results presented in those cases during the GWC evidentiary hearing that has now been scheduled for July 26, 2011. However, I think it is fair to say that, at this point in time, I do not expect any major changes to my current recommendation.

Q. Has Mr. Bourassa made any changes to his recommended cost of equity capital?

A. Yes. Mr. Bourassa has decreased his original recommended cost of common equity from 11.00 percent to the 10.20 percent cost of common equity displayed in the prior section of my testimony.

Q. Has there been any recent Federal Reserve activity in regard to interest rates?

A. Yes. During its most recent FOMC meeting on April 26 and 27, 2011, the Federal Reserve decided not to increase or decrease the federal funds rate and kept it between zero and 0.25 percent. In a press release dated April 27, 2011, the Fed stated that the FOMC "will continue to maintain the target range for the federal funds rate at 0 to ¼ percent and continues to anticipate that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant exceptionally low levels for the federal funds rate for an extended period." When asked to define the Fed's statement about an "extended period" for maintaining interest rates during the first-ever press conference held after an FOMC meeting, Federal Reserve Chairman Ben Bernanke stated that the Fed likely wouldn't act on rates until a "couple of meetings" after that language had been removed.[1] Based on the Fed's press release and Chairman Bernanke's statement, it would appear that

[1] Reddy, Sudeep, "The Chairman Makes History, but Little News," The Wall Street Journal, April 28, 2011.

the Fed will continue to maintain the current level of low interest rates for the foreseeable future. The next FOMC meeting is scheduled for June 21 and 22, 2011.

Q. Please respond to Mr. Bourassa's accusations that you use a "wolf in sheep's clothing" approach and "sleight of hand" to manipulate your cost of capital data in order to achieve "results oriented" recommendations.

A. Although I expected Mr. Bourassa to object to a hypothetical capital structure, I am disappointed with the unprofessional tenor of his testimony. The use of a hypothetical capital structure to correct a grossly unbalanced debt/equity ratio is a legitimate proposal well grounded in sound public policy. Furthermore, the Commission has adopted hypothetical capital structures in the past when calculating the cost of capital. Using pejorative terms such as those used by Mr. Bourassa is not appropriate for the Commission's litigation arena.

Q. Can you cite any Decisions in which the Commission adopted hypothetical capital structures?

A. The main Decisions that come to mind are Decision No. 67454, dated January 4, 2005, that adopted a hypothetical capital structure for Tucson Electric Power; Decision No. 68487, dated February 23, 2006, which was a Southwest Gas Corporation Rate case proceeding; and Decision No. 69440, dated May 1, 2007, which involved Arizona-American Water

Company. A more recent rate case was Rio Rico Utilities, Inc. in which the utility agreed to a hypothetical capital structure that was adopted by the Commission in Decision No. 72059, dated January 6, 2011.

Q. Can you provide a comparison of costs of equity that have been adopted by the ACC in recent rate cases versus what Mr. Bourassa and you have recommended?

A. Yes. The following is a comparison of costs of equity that have been adopted by the ACC in recent rate cases[2] versus what Mr. Bourassa and I have recommended:

| Utility | Dec. No. | Adopted | Bourassa | Rigsby |
|---|---|---|---|---|
| Black Mountain Sewer Corp. | 71865 | 10.20% | 12.40% | 8.22% |
| Litchfield Park Service Co. | 72026 | 8.01% | 12.00% | 9.00% |
| Rio Rico Utilities, Inc. | 72059 | 9.50% | 11.70% | 9.00% |
| Bella Vista Water Company | 72251 | 9.50% | 10.90% | 9.00% |

A brief review of the information displayed above illustrates that Mr. Bourassa's past recommendations clearly exceeded what the Commission has determined to be an appropriate rate of return for regulated water utilities. I would also point out that in each of these cases, with the exception of Black Mountain Sewer Corporation, my final cost of equity

[2] I would point out that in the Litchfield Park Service Company proceeding, the Commission adopted the 8.01 percent cost of common equity that I had originally recommended in my direct testimony (I increased my recommendation to 9.00 percent during the rebuttal phase of the proceeding for the same reasons I am relying on in this case).

recommendations were higher than the averages of my DCF and CAPM results which supported costs of equity of around 8.00 percent. As can be seen from these prior decisions, the Commission has authorized costs of equity that are closer to my recommendations than those of Mr. Bourassa.

Q. Has the ACC adopted your recommended costs of equity capital or adopted costs of equity capital that were influenced by your recommendations in cases that Mr. Bourassa was not involved in?

A. Yes. Those cases were as follows:

| Utility | Dec. No. | Adopted | Company | Rigsby |
|---|---|---|---|---|
| UNS Gas, Inc. | 71623 | 9.50% | 11.00% | 8.61% |
| Arizona Water Company | 71845 | 9.50% | 12.40% | 8.33% |
| Global Utilities | 71878 | 9.00% | 10.00% | 9.00% |
| UNS Electric Inc. | 71914 | 9.75% | 11.40% | 9.25% |
| Arizona-American | 72047 | 9.50% | 10.70% | 9.50% |

Q. Have you revised your recommended cost of common equity based on either your updated cost of capital analysis or the positions taken by Mr. Bourassa in his rebuttal testimony?

A. No I have not. I am continuing to recommend a 9.00 percent cost of common equity for GWC even though the average of my DCF and CAPM results support a lower figure.

Q. Why do you stand by your position that your recommended 9.00 percent cost of common equity is reasonable given the fact that the results of your cost of capital analysis support a lower figure?

A. Despite the fact that the Federal Reserve has stated that it will continue to maintain the current level of low interest rates for the foreseeable future, my 9.00 percent return on common equity takes into consideration the possibility that interest rates will increase at some future point in time. Absent that possibility, a lower cost of common equity, such as the one adopted by the Commission in the recent Litchfield Park Service Company rate case, would certainly be appropriate should the Commission wish to adopt it. Furthermore, as I explained in my direct testimony, my recommended ROE of 9.00 percent is much higher than the 7.52 percent ROE that results from my models.

Q. Are there other reasons, besides the possibility of interest rates increasing in the future, that explain why you believe a 9.00 percent cost of common equity is reasonable?

A. Yes. When the downturn in the economy occurred in late 2008, investors reacted to the situation by pulling their funds out of the equity markets and putting them into U.S. Treasury instruments which were, and still are, yielding next to nothing (Attachment F), in order to avoid any further loss of capital. This situation has been referred to as a "flight to quality." Although fears have subsided in recent years and investors are entering

the equity markets again, as evidenced by the upturn in the U.S. stock market, both water and natural gas utilities are still, for the most part, viewed by Value Line's analysts as shelters during times of economic uncertainty. This is mainly because of their healthy dividend yields which range from averages of 3.05 percent to 3.71 percent, for the water and natural gas industry respectively , compared with a median average of 1.9 percent for all the dividend paying stocks followed by Value Line. This was pointed out in a recent piece[3] that appeared in The Wall Street Journal (Exhibit 1) which stated the following:

> "Utility stocks are coveted by conservative investors for their high dividend payments and the companies' fairly stable cash flows. The downside is that investors tend to move out of them into hotter sectors when the economic outlook improves. That can make their performance choppy."

Given the uncertainty of the economic recovery that is still under way, I believe that both water and natural gas companies will still hold an attraction for investors as a relatively safe investment in the event that another downturn occurs. For these reasons I believe my recommended 9.00 percent cost of equity, which is higher than what my DCF and CAPM results indicate, is reasonable.

...

[3] "Utilities," The Wall Street Journal, May 10, 2011.

Q. Are there other reasons you can cite as to why you think that higher returns are not needed to attract investors?

A. Yes. One has to take into consideration that the investment community at large is well aware of the fact that regulated utilities are different from non-regulated entities in terms of how they recover their costs. This information is taken into account when institutions and individual investors make their decisions on where to place their funds. The best example of this can be seen in an MSN Money/CNBC article[4] authored by Jon D. Markman, a weekly columnist for CNBC (Attachment D). In his article, Mr. Markman pitched his suggestions for investing in what some believe to be a coming global water shortage. In regard to domestic utilities, Markman had this to say:

> "Virtually all of the U.S. water utility stocks are regulated by states and counties, which makes them pretty dull. Governmental entities typically give utilities a monopoly in a geographic region, then set their profit margin a smidge above costs. Just about the only distinguishing factor among them are the growth rates of their regions and their ability to efficiently manage their underground pipe and pumping infrastructure."

...

[4] Markman, Jon D, "Invest in the Coming Global Water Shortage," MSN.com, January 12, 2005, http://moneycentral.msn.com/content/P102152.asp.

Q. What is your response to Mr. Bourassa's statements, on page 13 of his rebuttal testimony that GWC's cost of equity should be higher given the fact that a prior Commission decision authorized Sahuarita Water Company an equity return of 10.3 percent?

A. RUCO was not an intervenor in that case and I did not testify in it so I do not have any first-hand knowledge of that particular proceeding. However, I will say that the cost of capital for a utility, just as other ratemaking element issues, is typically considered on a case-by-case basis – not to mention the fact that the various inputs used in the models employed to determine the cost of equity are not static. While it is true that the Commission adopted the aforementioned cost of common equity figure for Sahuarita Water Company based on ACC Staff's recommendations, it doesn't mean that the same cost of equity figure will be derived from more recent economic data in this case. Mr. Bourassa himself admits that the cost of equity capital has fallen since he filed direct testimony in this case and has lowered his original cost of equity recommendation from 11.00 percent to 10.20 percent. However, his recommendation is still 110 to 120 basis points higher than the 9.10 percent and 9.00 percent recommended by ACC Staff witness Mr. Manrique and myself respectively.

...

Q. Please respond to Mr. Bourassa's position that your recommended cost of capital does not take firm size or company specific risk into account.

A. My cost of equity recommendation was derived from publicly traded companies that are, for all practical purposes, a collection of water systems that are similar to GWC and face the same types of risk that are faced by GWC. This being the case my cost of equity recommendation takes GWC's size and risk characteristics into account. I would also add that any firm specific risks would be mitigated by my capital structure recommendation which is comprised of 60 percent common equity as opposed to my sample companies' lower average of approximately 50 percent common equity.

**Sample Utilities**

Q. Do you still believe that your use of a sample of natural gas LDC's is appropriate to estimate a cost of equity for a water utility despite Mr. Bourassa's arguments?

A. Yes.

Q. Please explain why you believe it is appropriate to use a sample group of natural gas LDC's to estimate the cost of equity capital in a water utility rate case proceeding.

A. For the most part, natural gas LDC's have very similar operating and distribution characteristics with water companies such as GWC

therefore a good proxy for water and wastewater utility cost of capital studies. Their inclusion also provides a larger sample to obtain an estimate from.

Q. Have other analysts used natural gas LDC's as proxies in water utility rate case proceedings before the ACC?

A. Yes, in the Arizona-American Water Company (Arizona-American) rate case[5] that is now pending before the Commission, the cost of capital witness for Arizona-American also relied on a sample group of natural gas LDC's.

Q. Do you believe that an upward adjustment is needed for your recommended cost of equity given your use of a sample group of LDC's that have a lower average beta than the one calculated for your sample group of water utilities?

A. No. The point of using a sample of natural gas LDC's, which have similar operating characteristics to water utilities, is to obtain a broader sample.

Q. Would your recommendation change if you were to remove the natural gas LDC's from your proxy group?

A, No. A review of my DCF and CAPM results on page 3 of my Surrebuttal Schedule WAR 1 shows that while my CAPM results for water utilities are

[5] Docket No. W-01303A-10-0448

somewhat higher than the results for LDC's, my DCF results for LDC's are lower than the results for water utilities.

**CAPM Analysis**

Q. Please respond to Mr. Bourassa's criticism of your reliance on geometric means in the CAPM model.

A. As I stated in my direct testimony there is an on-going debate over which is the better average to rely on. However, it is important to recognize that the information on both the geometric and arithmetic means, published by Morningstar, is widely available to the investment community. For this reason I believe that the use of both means in a CAPM analysis is appropriate.

The best argument in favor of the geometric mean is that it provides a truer picture of the effects of compounding on the value of an investment when return variability exists. This is particularly relevant in the case of the return on the stock market, which has had its share of ups and downs over the 1926 to 2010 observation period used in my updated CAPM analysis.

Q. Can you provide an example to illustrate the differences between the two averages?

A. Yes. The following example may help. Suppose you invest $100 and realize a 20.0 percent return over the course of a year. So at the end of

year 1, your original $100 investment is now worth $120. Now let's say that over the course of a second year you are not as fortunate and the value of your investment falls by 20.0 percent. As a result of this, the $120 value of your original $100 investment falls to $96. An arithmetic mean of the return on your investment over the two-year period is zero percent calculated as follows:

$$(\text{year 1 return} + \text{year 2 return}) \div \text{number of periods} =$$

$$(20.0\% + -20.0\%) \div 2 =$$

$$(0.0\%) \div 2 = \underline{\underline{0.0\%}}$$

The arithmetic mean calculated above would lead you to believe that you didn't gain or lose anything over the two-year investment period and that your original $100 investment is still worth $100. But in reality, your original $100 investment is only worth $96. A geometric mean on the other hand calculates a compound return of negative 2.02 percent as follows:

$$(\text{year 2 value} \div \text{original value})^{1/\text{number of periods}} - 1 =$$

$$(\$96 \div \$100)^{1/2} - 1 =$$

$$(0.96)^{1/2} - 1 =$$

$$(0.9798) - 1 =$$

$$-0.0202 = \underline{\underline{-2.02\%}}$$

The geometric mean calculation illustrated above provides a truer picture of what happened to your original $100 over the two-year investment period.

As can be seen in the preceding example, in a situation where return variability exists, a geometric mean will always be lower than an arithmetic mean, which probably explains why utility consultants typically put up a strenuous argument against the use of a geometric mean.

Q. Has the Commission authorized rates of return that were derived through the use of both arithmetic and geometric means in prior decisions?

A. Yes. Two specific cases that come to mind involved UNS Gas Inc. ("UNSG"). Decision No. 70011, dated November 27, 2007 stated the following:

> "We agree with the Staff and RUCO witnesses that it is appropriate to consider the geometric returns in calculating a comparable company CAPM because to do otherwise would fail to give recognition to the fact that many investors have access to such information for purposes of making investment decisions."

The Commission later reaffirmed this position in the most recent UNSG case. Decision No. 71623, dated April 14, 2010 stated the following:

> "We also continue to believe, consistent with our findings in several prior cases, that it is appropriate to consider the geometric returns in calculating a comparable company CAPM because to do otherwise would fail to give recognition to the fact that many investors have access to such information for purposes of making investment decisions."

In both UNSG cases, the ACC Staff witness was Mr. David C. Parcell, who, as I do, consistently relies on both arithmetic and geometric means in our CAPM analyses.

Q. Can you cite any other evidence that supports your use of both a geometric and an arithmetic mean?

A. Yes. In the third edition of their book, Valuation: Measuring and Managing the Value of Companies, authors Tom Copeland, Tim Koller and Jack Murrin ("CKM") make the point that, while the arithmetic mean has been regarded as being more forward-looking in determining market risk premiums, a true market risk premium may lie somewhere between the arithmetic and geometric averages published in Morningstar's SBBI yearbook (Exhibit 2).

Q. Please explain.

A. In order to believe that the results produced by the arithmetic mean are appropriate, you have to believe that each return possibility included in the calculation is an independent draw. However research conducted by CKM demonstrates that year-to-year returns are not independent and are actually auto correlated (i.e. a relationship that exists between two or more returns, such that when one return changes, the other, or others, also change), meaning that the arithmetic mean has less credence. CKM also explains two other factors that would make the Morningstar arithmetic mean too high. The first factor deals with the holding period. The

arithmetic mean depends on the length of the holding period and there is no "law" that says that holding periods of one year are the "correct" measure. When longer periods (e.g. 2 years, 3 years etc.) are observed, the arithmetic mean drops about 100 basis points. The second factor deals with a situation known as survivor bias. According to CKM, this is a well-documented problem with the Morningstar historical return series in that it only measures the returns of successful firms. That is, those firms that are listed on stock exchanges. The Morningstar historical return series does not measure the failures, of which there are many. Therefore, the return expectations in the future are likely to be lower than the Morningstar historical averages. After conducting their analysis, CKM conclude that 4.0 percent to 5.5 percent is a reasonable forward-looking market risk premium[6]. Adding my 2.36 percent risk free yield on a 5-year Treasury instrument to these two estimates indicate a cost of equity of 6.36 percent to 7.86 percent which is lower than my recommended cost of equity of 9.00 percent. Given the fact that utilities generally exhibit less risk than industrials, a return in the low end of this range could be considered reasonable.

...

[6] In the 4th edition of Valuation, the authors state on page 306 of the text that 4.5 percent to 5.5 percent is an appropriate range (Attachment E).

Q. Is Mr. Bourassa correct in his assertion that you did not use the appropriate inputs to calculate a market risk premium in your CAPM model?

A. No. Despite Mr. Bourassa's assertion, I have used an appropriate Treasury instrument to calculate the risk premium in my CAPM model. The risk premium that I have calculated has also been calculated in the same manner by both ACC Staff and other cost of capital witnesses whose cost of capital recommendations have been adopted by the Commission. Mr. Bourassa's assertion that I should not have used total returns in the market risk premium component of the CAPM is unfounded. While it is true that investors are typically attracted to utility stocks for their income needs, it is simply not rational to think that they would not expect some capital gains as well. The use of income returns totally ignores the fact that bond prices do indeed fluctuate as a result of interest rate changes – as do interest sensitive utility stock prices. For this reason I believe Mr. Bourassa's reliance on income returns is unrealistic at best.

Q. Please address Mr. Bourassa's criticism of your use of a 5-year Treasury yields and intermediate-term securities in your CAPM analysis.

A. Mr. Bourassa believes that long-term treasury instruments, with higher yields, should be used in the CAPM. However, utilities do not apply for rate relief every thirty years and regulators do not set rates for thirty-year periods. The simple fact is that utilities generally apply for rate relief every

three to five years and utility investors are aware of this fact. For this reason I believe the use of long-term treasury yields overstate the cost of equity capital.

Q. What is the current yield on a 5-year Treasury instrument?

A. The current yield on a 5-year Treasury instrument is 1.85 percent (Attachment F) which is 28 basis points lower than the 2.13 percent 8-week average yield that I used in my direct testimony CAPM analysis, and 23 basis points lower than the 2.08 percent 8-week average yield that I used in my updated CAPM analysis that can be seen on Pages 1 and 2 of my Surrebuttal Schedule WAR-7.

Q. Please comment on Mr. Bourassa's argument that you have ignored the current risk premium?

A. The fact that we are now experiencing an improving economy and a resurgence in the equity markets pretty much makes this argument passé. As I have argued in prior cases, the historical market risk premium that I have relied on takes into account a wide range of economic conditions from 1926 through 2010. In short, the economy is slowly getting back to normal and there is no good reason to believe that the excessive market risk premium of 13.40 percent that Mr. Bourassa is proposing is realistic for setting rates in this case. As I stated earlier, the analysis conducted by

CKM concluded that 4.0 percent to 5.5 percent is a reasonable forward-looking market risk premium.

Q. Can you name any other sources that support CKM's conclusion that 4.0 percent to 5.5 percent is a reasonable market risk premium on a forward-looking basis?

A. Yes. During the 39th annual Financial Forum of the Society of Utility and Regulatory Financial Analysts, which was held at Georgetown University in Washington D.C. on April 19 and 20, 2007, I had the opportunity to hear the views of Aswarth Damodaran, Ph. D. and Felicia C. Marston, Ph. D., professors of finance from New York University and the University of Virginia respectively, who have conducted empirical research on this subject. Dr. Damodaran and Dr. Marston supported CKM's 4.0 to 5.5 percent estimates during a panel discussion that provided both professors with the opportunity to explain their research on the equity risk premium and to answer questions from other financial analysts in attendance. Each of the panelists[7] stated that they believed that a reasonable market risk premium fell between 4.0 percent and 5.0 percent when asked to provide estimates based on their research.

[7] Other analysts taking part in the panel discussion included Stephen G. Hill, CRRA, Principal, Hill Associates and moderator Farris M. Maddox, Principal Financial Analyst, Virginia State Corporation Commission.

Q. If market risk premiums of 4.0 percent to 5.0 percent were used in your updated CAPM model what would the results be?

A. Using market risk premiums ($r_m$ - $r_f$) of 4.0 percent to 5.0 percent in my updated CAPM model, using a proxy of water companies, produces the following expected returns (k):

<u>Water Company Sample using 4.0 percent</u>

$$k = r_f + [\,ß\,(r_m - r_f)\,]$$

$$k = 2.08\% + [\,0.75\,(4.0\%)\,]$$

$$k = 5.08\%$$

<u>Water Company Sample using 5.0 percent</u>

$$k = r_f + [\,ß\,(r_m - r_f)\,]$$

$$k = 2.08\% + [\,0.75\,(5.0\%)\,]$$

$$k = 5.83\%$$

As can be seen above, my CAPM model, using a water company sample average beta (ß) of 0.75 and the yield on a 5-year Treasury instrument of 2.08 percent for the risk free rate of return ($r_f$), produces an expected return (k) of 5.08 percent to 5.83 percent. My LDC sample, using an average beta of 0.66, produces expected returns of 4.72 percent to 5.38 percent. All of which makes my recommended 9.00 percent cost of common equity appear to be both reasonable and attractive to investors.

Q. Do you have any data that supports a 4.00 percent to 5.0 percent equity risk premium during the market crises which unfolded in September of 2008?

A. Yes. In September 2008 Dr. Damodaran, who I noted earlier in my testimony, presented a paper titled Equity Risk Premium (ERP): Determinants, Estimation and Implications, which contained an October update that presented data on the swings in implied equity risk premium that occurred between September 12, 2008 and October 16, 2008. During that time frame, implied equity risk premiums ranged from 4.20 percent to 6.39 percent. The 5.30 percent mean average of that range is 15 basis points lower than the 5.45 percent average of my updated market risk premium of 4.50 percent and 6.40 percent using both geometric and arithmetic means respectively. In February, 2011 Dr. Damodaran updated the data published in his paper (Exhibit 3). Based on the information contained in his update, I believe that the market risk premiums used in my CAPM analysis are still reasonable.

Q. Please respond to Mr. Bourasssa's argument that your overall CAPM results are below the current yields on Baa/BBB debt instruments.

A. I am not recommending that the Commission adopt my CAPM results, but I am not recommending that the Commission ignore my CAPM results either. In fact, the 5.93 percent average produced by my updated CAPM analysis (Surrebuttal Schedule WAR-1, Page 3) is 15 basis points higher

than the current 5.78 percent yield on Baa/BBB utility bonds (Attachment F). What I am recommending is a cost of common equity of 9.00 percent which is 322 to 367 basis points over the most recent yields of 5.78 percent to 5.33 percent for Baa/BBB-rated and A-rated utility bonds respectively (Attachment F). The results of my CAPM analyses (using both arithmetic and geometric means) are simply reflecting the current environment of low interest rates which cannot be ignored. From the perspective that public utilities have traditionally been viewed as safe investments, and all things being equal, it is not reasonable to believe that their costs of equity capital should be at the 10.20 percent level advocated by Mr. Bourassa.

Q. Isn't it also true that common shareholders bear a higher risk than bond holders and expect a higher return than the yields of utility debt instruments?

A. Yes. I do not disagree on this point. However, the question is how much more of a risk premium is merited for a low risk regulated monopoly such as GWC, particularly at a time when interest rates are still at historic lows.

Q. Has the ACC ever adopted a risk premium adjustment for small sized utilities?

A. Not in any cases that I am aware of.

**Capital Structure**

Q. Please respond to Mr. Bourasa's criticisim of your decision to recommend a hypothetical capital structure for GWC.

A. Mr. Bourassa seems to believe that my decision to recommend a hypothetical capital structure in a given case is limited to what I have recommended in other cases that I have testified on. The fact is that I make decisions on a case by case basis and in this case I believe that a hypothetical capital structure – one that is more in line with the companies included in my water and LDC sample – is appropriate.

Q. Was your decision to recommend a hypothetical capital structure influenced by the fact that GWC's long-term debt is comprised of a shareholder loan, as opposed to a bond issuance or a loan from a financial institution?

A. Yes. Typically I have avoided recommending hypothetical capital structures in cases where the investor owned utility had debt comprised of bond issuances or loans with third-party financial institutions – as in the Litchfield Park Service Company case cited by Mr. Bourassa. However, in this case, where GWC's debt is a shareholder loan which I consider to be a less than arms length transaction, I believe that a hypothetical capital structure makes more sense given the fact that the level of financial risk faced by GWC is lower than what it would be if the Company faced the

possibility of defaulting on money owed to bondholders or a third party financial institution such as a bank.

Q. Do you believe that your decision to recommend a hypothetical capital structure in this case is confiscatory and that you are only recommending it to obtain the lowest possible rate of return as Mr. Bourassa has charged?

A. No. One of the principal reasons for utility regulation is to emulate what would happen if a natural monopoly, such as GWC, had to face competitive market pressures which would force them to operate at the least possible cost. This includes the cost of capital that results from an optimal capital structure. In this case, I am simply recommending a more balanced capital structure that is in line with the capital structures of the water companies and LDC's in my sample. More to the point, I believe I am recommending a capital structure that a prudent chief financial officer – one that is operating a competitive business entity – would most likely opt for in order to reduce his or her firm's overall cost of capital and also benefit from the tax advantages that are associated with lower cost debt financing.

**Cash Flow**

Q. Would GWC have adequate cash flow to cover the company's debt service obligations, assuming that your 6.13 percent recommended cost of debt is adopted, at RUCO's recommended level of required revenue?

A. Yes. GWC would have $321,508 in available cash flow (Operating Income + Depreciation Expense = $137,790 + $183,719 = $321,508) to cover a projected annual debt service of $37,230 (Interest Expense + Principal Repayment = $23,409 + $13,821 = $37,230). Using the same type of financial analysis that the Commission has relied on for approving utility financing applications, RUCO's recommended level of operating revenue would provide GWC with the following times interest earned ("TIER") and debt service coverage ratios ("DSC"):

| | | |
|---|---|---|
| (1) Operating Income | $ | 137,790 |
| (2) Depreciation and Amortization | | 183,719 |
| (3) Income Tax Expense | | 42,716 |
| (4) Interest Expense | $ | 23,409 |
| (5) Repayment of Principal | | 13,821 |
| (6) **TIER (Interest Coverage)** | | |
| (7) **[(1) + (3)] ÷ (4)** | | **7.71** |
| (8) **DSC** | | |
| (9) **[(1) + (2) + (3)] ÷ [(4) + (5)]** | | **9.78** |

The above calculation uses operating income information exhibited in RUCO witness Timothy J. Coley's Surrebuttal Schedule TJC-8 and uses twelve months of interest and principal payments, for the 2012 operating

period, based on RUCO's recommended 6.13 percent rate of interest. The interest and principal payments assume a restructured shareholder loan with a remaining balance of $471,073[8] to be repaid over seventeen years.

Q. Please explain what the TIER of 7.71 and the DSC of 9.78 represents.

A. A TIER that is greater than 1.00 means that pre-tax operating income is greater than interest expense. In this case, RUCO's recommended pre-tax operating income of $180,506 (Operating Income + Income Tax Expense = $137,790 + $42,716 = $180,506) is approximately 7.71 times greater than interest expense of $23,409.

DSC represents the number of times internally generated cash will cover required interest and principal payments on short-term and long-term debt. A DSC greater than 1.00 indicates that operating cash flow is sufficient to cover debt service obligations. A DSC of 9.78 indicates that GWC would clearly have adequate cash to meet its debt service obligation under RUCO's recommended 6.13 percent cost of debt.

Q. How much would GWC save in annual debt service if the Commission were to adopt your recommended 6.13 percent cost of debt?

A. GWC's annual debt service would be reduced from the current annual amount of $54,923 (Monthly Payment x 12 months = $4,576.90 x 12 =

[8] The remaining principal balance on the existing shareholder loan assuming that new rates go into effect on October 1, 2011.

$54,923) to $37,230 (Monthly Payment x 12 months = $3,723.04 x 12 = $37,230). This would result in an annual savings of $17,693 ($54,923 - $37,230 = $17,693) for the Company.

Q. Would GWC have cash available to pay dividends if its board of directors made the decision to declare one?

A. Yes. Under the scenario described above, GWC would have $284,279 in available cash after covering its annual debt service of $37,230 (Operating Income + Depreciation Expense - Interest Expense - Principal Repayment = $137,790 + $183,719 - $23,409 - $13,821 = $284,279). If the Company's directors elected to pay out cash dividends totaling $90,000, as they did during the Test Year, they would still have $194,279 in cash available for other purposes (Cash Available After Debt Service Payment - Declared Dividend Payment = $284,279 - $90,000 = $194,279).

**Cost of Debt**

Q. Have Mr. Bourassa's rebuttal arguments caused you to revise your recommendation for a 6.13 percent hypothetical cost of debt?

A. No. Mr. Bourassa puts up a strenuous argument for GWC's 8.50 percent rate of interest and takes the position that third party lenders would probably not loan money to the Company at a rate of interest that is lower than that.

Q. What is your response to Mr. Bourassa's position?

A. My position has not changed. A prudent money manager would take advantage of lower prevailing interest rates and refinance or restructure existing higher cost debt. In this case the current 8.50 percent rate of interest was decided on by the same GWC shareholders who are collecting the annual interest expense as opposed to a third-party financial institution.

Q. What is the current yield on Baa/BBB-rated utility bonds?

A. As noted earlier in my testimony, as of May 11, 2011, the yield on Baa/BBB-rated utility bonds is 5.78 percent (Attachment F). This is 272 basis points lower than GWC's 8.50 percent cost of debt.

Q. Have you revised your recommended 6.13 percent cost of debt given the fact that the yields on Baa/BBB utility bonds are lower than what they were when you filed your direct testimony?

A. No. Despite the fact that the current 5.78 percent yield on Baa/BBB utility bonds has fallen 30 basis points, I am still recommending a 6.13 percent hypothetical cost of debt for GWC.

**DCF Analysis**

Q. Please comment on Mr. Bourassa's position that the results of your DCF analysis should be rejected by the Commission because of the method that you used to determine the internal growth rates in your DCF model.

A. The method that I have used to determine internal sustainable growth in the DCF model is identical to the DCF analysis performed by ACC Staff witness Stephen Hill, whose cost of equity recommendation was adopted by the Commission in a prior Southwest Gas proceeding that I cited in my direct testimony. The method is also consistent with the DCF analysis that I performed in a prior Gold Canyon Sewer Company proceeding in which the Commission adopted my recommended cost of capital. I am not aware of any proceeding before the ACC in which Mr. Bourassa's recommended costs of capital or the methods by which he arrived at those recommendations were adopted by the Commission.

Q. Does your silence on any of the issues or positions addressed in the rebuttal testimony of the Mr. Bourassa or any of the Company's other witnesses constitute acceptance?

A. No, it does not.

Q. Does this conclude your surrebuttal testimony on GWC?

A. Yes, it does.

# EXHIBIT 1

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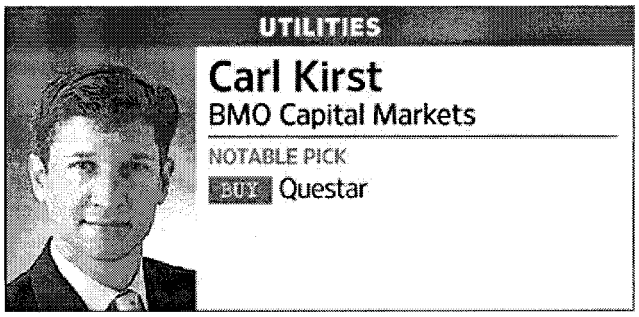
# Utilities

Utility stocks are coveted by conservative investors for their high dividend payments and the companies' fairly stable cash flows. The downside is that investors tend to move out of them into hotter sectors when the economic outlook improves. That can make their performance somewhat choppy.




"You ultimately have to trust in your preparation and commit to making your move," says Carl Kirst, an analyst at the BMO Capital Markets Corp. arm of BMO Financial Group, who uses that philosophy whether he's out rock climbing or making stock calls. It not only has saved the 40-year-old Mr. Kirst's life on some treacherous climbs, but also helped him grab the top spot in the utilities sector for 2010 in the Best on the Street survey.

One of Mr. Kirst's top picks last year was a buy rating on **Questar** Corp., initiated in October 2009. The company, which focuses on natural gas, said in April 2010 that it would split its utility from its exploration-and-production business. Questar shares shot up after the announcement. "We essentially kept a buy on the stock until the company did in fact split," Mr. Kirst says, downgrading the stock to hold in mid-August and scoring a 29% return for investors who followed his timing. The stock returned 34% for the full year.

Mr. Kirst's best pick last year isn't a utility but generates the bulk of its profits from stable fees for pipelines transporting natural gas. His full-year buy rating on **El Paso** Corp. brought a 40% return. Mr. Kirst put a buy rating on El Paso in late 2009, near the stock's bottom. He was optimistic because "everything that could go wrong was already priced into the stock." He still rates the stock a buy, and believes it could rise at least 15% over the next 12 to 18 months as the company continues to expand its pipeline business, sheds some noncore assets and cuts its debt.

**Journal Report**

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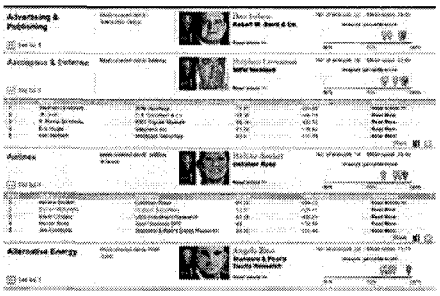
While closely evaluating risks helped Mr. Kirst make some timely bets, exercising too much caution had its pitfalls. He missed out on one big mover in the utility sector in 2010: **National Fuel Gas** Co.

National Fuel Gas's stock, which returned 34% in 2010, rallied after the company announced last September that it was seeking a partner for its assets in the Marcellus shale, a prolific gas-production area in Pennsylvania. The announcement came earlier than Mr. Kirst expected and got investors excited. He



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missed out on the gains with his hold rating, which he maintains because it isn't clear what the terms of any partnership would be.

Looking ahead, Mr. Kirst says the most interesting trend in the natural-gas industry is the rapid development of liquefied natural gas for export. Just a few years ago, the U.S. was searching for LNG to import, but now utilities and other companies involved in production may be close to exporting it on a large scale, thanks to onshore reserves in shale-rock formations, declining costs and potential support from regulators, Mr. Kirst says.

**Southern Union** Co. is his top pick for investors looking to invest in the increasing likelihood for LNG exports, he says.

—Naureen S. Malik

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# EXHIBIT 2

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# VALUATION

## MEASURING AND MANAGING THE VALUE OF COMPANIES

THIRD EDITION

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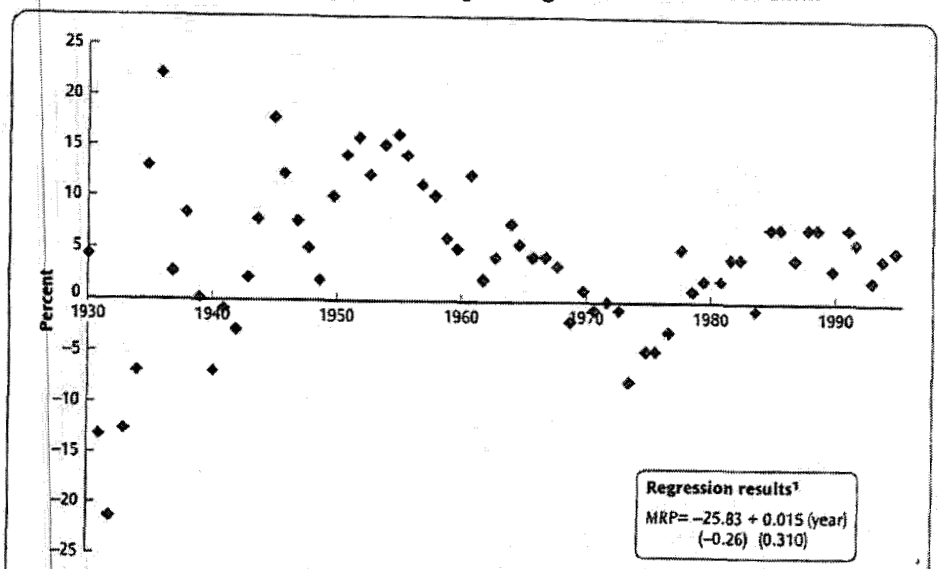
**Exhibit 10.5 Five-Year Rolling Average of Market Risk Premia**




1 Standard errors in parentheses.
Source: Ibbotson.

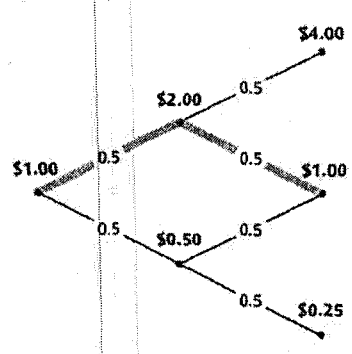
**Geometric versus arithmetic average** Let's turn to the question of geometric versus arithmetic average rates of return. An arithmetic average of rates of return is the simple average of the single period rates of return. Suppose you buy a share of a non-dividend-paying stock for $50. After one year the stock is worth $100. After two years the stock falls to $50 once again. The first period return is 100 percent; the second period return is –50 percent. The arithmetic average return is 25 percent—100 percent –50 percent divided by 2. The geometric average is the compound rate of return that equates the beginning and ending value, zero in our example.

What can we infer from these data? If we are willing to make the strong assumption that each return is an independent observation from a stationary underlying probability distribution, then we can infer that four equally likely return paths actually exist: 100 percent followed by 100 percent, 100 percent followed by –50 percent, –50 percent followed by 100 percent, and –50 percent followed by –50 percent. These possibilities are illustrated in Exhibit 10.6. The shaded area represents what we have actually observed, and the remainder of the binomial tree is what we have inferred by assuming independence.

The difference between the arithmetic and geometric averages is that the former infers expected returns by assuming independence, and the latter treats the observed historical path as the single best estimate of the

**Exhibit 10.6 Arithmetic versus Geometric Return**

**Rate of return data for four paths**




**Along the shaded path:**

Arithmetic return $\frac{100\% - 50\%}{2} = 25\%$

Geometric return $(1 + 100\%)(1 - 50\%) - 1 = 0\%$

At first, it would seem that the geometric return is appropriate because, after all, we started with $1.00 and ended with $1.00 – a zero percent return. But remember, the theory says we are interested in the expected return. The expected (or ex ante) payout is the probability of each final payout multiplied by the return.

$$E(\text{payout}) = \sum_{i=1}^{N} \text{probability}_i \ \text{payout}_i$$

$$= \left[\tfrac{1}{2}\right]^2 (\$4.00) + 2\left[\tfrac{1}{2}\right]^2 (\$1.00) + \left[\tfrac{1}{2}\right]^2 (\$0.25)$$

$$= \$1.00 + \$0.50 + \$0.0625 = \$1.5625$$

You get the same answer by growing your $1.00 starting wealth by 25 percent (the arithmetic return) for two years.

E (payout) = $1.00 (1.25) (1.25) = $1.5625

future. If you believe that it is proper to apply equal weighting to all branches in the binomial tree, and if your starting position is $50, then your expected wealth is as follows:

$$1/4\ (\$200) + 1/2\ (\$50) + 1/4\ (\$12.50) = \$78.125$$

Exactly the same value can be obtained by computing the arithmetic average return and applying it to the starting wealth as follows:

$$\$50\ (1.25)\ (1.25) = \$78.125$$

The arithmetic average is the best estimate of future *expected* returns because all possible paths are given equal weighting. The single geometric average return is 0 percent, but this is the historical return along a single path that was realized by chance. Although the geometric return is the correct measure of historical performance, it is not forward looking.

The arithmetic return is always higher than the geometric return. The difference between them becomes greater as the variance of returns increases. Also, the arithmetic average depends on the interval chosen. For example, an average of monthly returns will be higher than an average of annual returns. The geometric average, being a single estimate for the entire time interval, is the same regardless of the interval chosen.

Exhibit 10.7 shows illustrative returns during 10 periods, and their arithmetic and geometric average during various intervals. The geometric average is independent of the time interval that is chosen for averaging, but the arithmetic average declines as a function of the time interval.

**Exhibit 10.7 The Interval Effect**

Percent

| Year | Return | | Arithmetic average | Geometric average |
|---|---|---|---|---|
| 1 | 5 | 10 one-year intervals | 4.70 | 4.17 |
| 2 | −10 | 5 two-year intervals | 4.51 | 4.17 |
| 3 | 8 | 2 five-year intervals | 4.19 | 4.17 |
| 4 | 16 | 1 ten-year interval | 4.17 | 4.17 |
| 5 | −6 | | | |
| 6 | −10 | | | |
| 7 | 20 | | | |
| 8 | 4 | | | |
| 9 | 18 | | | |
| 10 | 2 | | | |

Exhibit 10.8 shows the market risk premium for U.S. large capitalization stocks using the arithmetic mean for different return periods. For example, for the three-year periodicity, we calculated the three-year returns for 24 periods and then took the arithmetic average of the three-year returns (annualized to one year). The results show that the estimated arithmetic average declines as you average over longer intervals. There is no guidance or intuition that would lead us to conclude that the CAPM, a one-period model, is necessarily a one-year model. Note that the arithmetic risk premium, based on two-year intervals, is a full one percent less than the premium based on one-year intervals. Given the large gap between one- and two-year intervals compared with the gap between two years and all other intervals, we chose to base our market risk premium estimate on the two-year interval.

Our choice of a two-year or greater interval is supported by evidence that historical returns are not independent draws from a stationary distribution. Empirical research by Fama and French (1988), Lo and MacKinlay (1988), and Poterba and Summers (1988)[10] indicates that a significant long-term negative

**Exhibit 10.8 Arithmetic Average for Various Intervals**

Percent

| 1926–1998 | Large company stocks | Long-term government bonds | Market risk premium |
|---|---|---|---|
| Arithmetic mean of 1-year returns | 13.2 | 5.7 | 7.5 |
| Arithmetic mean of 2-year returns | 11.9 | 5.4 | 6.5 |
| Arithmetic mean of 3-year returns | 11.6 | 5.3 | 6.3 |
| Arithmetic mean of 4-year returns | 11.4 | 5.3 | 6.1 |
| Geometric mean | 11.2 | 5.3 | 5.9 |

autocorrelation exists in stock returns. The implication is that the true market risk premium lies between the arithmetic and geometric averages.

**Survivorship bias** Brown, Goetzmann, and Ross first raised survivorship bias as an issue (1995), claiming that survival imparts a bias to ex post returns.[11] If the market risk premium were zero, a substantial upward bias would be imparted on markets that survive over a century without going under. Jorion and Goetzmann (1999) have attempted to estimate the survivorship bias by collecting monthly rate of return data from 1921 to 1996 for 39 stock market indices.[12] If one looks at geometric returns, the United States outperformed all others during the twentieth century, averaging 6.9 percent in nominal terms annually, or 4.3 percent in real terms (deflating by the wholesale price index) between January 1926 and December 1996. Of the group of 24 markets that existed in 1931, only seven experienced no interruption in trading (the United States, Canada, the United Kingdom, Australia, New Zealand, Sweden, and Switzerland), seven suspended trading for less than a year, and the remaining 10 suffered long-term closure. The breaks were not favorable events. Over World War II the Japanese market fell 95 percent in real terms, and the German market fell 84 percent.

It is unlikely that the U.S. market index will do as well over the next century as it has in the past, so we adjust downward the historical arithmetic average market risk premium. Using the tables in Jorion and Goetzmann, we find that between 1926 and 1996, the U.S. arithmetic annual return exceeded the median return on a set of 11 countries with continuous histories dating to the 1920s by 1.9 percent in real terms, or 1.4 percent in nominal terms. If we subtract a 1½ percent to 2 percent survivorship bias from the long-term arithmetic average of 6.5 percent, we conclude that the market risk premium should be in the 4½ percent to 5 percent range.

**Ex ante estimates of the market risk premium** An alternative to the historically estimated market risk premium is an ex ante estimate, one based on the current value of the share market relative to projections of earnings or cash flows. One approach estimates the expected rate of return on the market portfolio, $E(r_m)$, by adding the analysts' consensus estimate of

[10] E. Fama and K. French, "Dividend Yields and Expected Stock Returns," *Journal of Financial Economics* (October 1988), pp. 3–26; A. Lo and C. MacKinlay, "Stock Prices Do Not Follow Random Walks: Evidence from a Simple Specification Test," *Review of Financial Studies* (1988), pp. 41–66; J. Poterba and L. Summers, "Mean Reversion in Stock Prices," *Journal of Financial Economics* (October 1988), pp. 27–60.

[11] S. Brown, W. Goetzmann, and S. Ross, "Survivorship Bias," *Journal of Finance* (July 1995), pp. 853–873.

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# EXHIBIT 3

# Equity Risk Premiums (ERP): Determinants, Estimation and Implications – The 2011 Edition

*Updated: February 2011*

*Aswath Damodaran*

*Stern School of Business*

***adamodar@stern.nyu.edu***

*Appendix 5: Year-end Implied Equity Risk Premiums: 1961-2010*

| *Year* | *S&P 500* | *Earnings* | *Dividends* | *T.Bond Rate* | *Estimated Growth* | *Implied Premium* |
|---|---|---|---|---|---|---|
| 1961 | 71.55 | 3.37 | 2.04 | 2.35% | 2.41% | 2.92% |
| 1962 | 63.1 | 3.67 | 2.15 | 3.85% | 4.05% | 3.56% |
| 1963 | 75.02 | 4.13 | 2.35 | 4.14% | 4.96% | 3.38% |
| 1964 | 84.75 | 4.76 | 2.58 | 4.21% | 5.13% | 3.31% |
| 1965 | 92.43 | 5.30 | 2.83 | 4.65% | 5.46% | 3.32% |
| 1966 | 80.33 | 5.41 | 2.88 | 4.64% | 4.19% | 3.68% |
| 1967 | 96.47 | 5.46 | 2.98 | 5.70% | 5.25% | 3.20% |
| 1968 | 103.86 | 5.72 | 3.04 | 6.16% | 5.32% | 3.00% |
| 1969 | 92.06 | 6.10 | 3.24 | 7.88% | 7.55% | 3.74% |
| 1970 | 92.15 | 5.51 | 3.19 | 6.50% | 4.78% | 3.41% |
| 1971 | 102.09 | 5.57 | 3.16 | 5.89% | 4.57% | 3.09% |
| 1972 | 118.05 | 6.17 | 3.19 | 6.41% | 5.21% | 2.72% |
| 1973 | 97.55 | 7.96 | 3.61 | 6.90% | 8.30% | 4.30% |
| 1974 | 68.56 | 9.35 | 3.72 | 7.40% | 6.42% | 5.59% |
| 1975 | 90.19 | 7.71 | 3.73 | 7.76% | 5.99% | 4.13% |
| 1976 | 107.46 | 9.75 | 4.22 | 6.81% | 8.19% | 4.55% |
| 1977 | 95.1 | 10.87 | 4.86 | 7.78% | 9.52% | 5.92% |
| 1978 | 96.11 | 11.64 | 5.18 | 9.15% | 8.48% | 5.72% |
| 1979 | 107.94 | 14.55 | 5.97 | 10.33% | 11.70% | 6.45% |
| 1980 | 135.76 | 14.99 | 6.44 | 12.43% | 11.01% | 5.03% |
| 1981 | 122.55 | 15.18 | 6.83 | 13.98% | 11.42% | 5.73% |
| 1982 | 140.64 | 13.82 | 6.93 | 10.47% | 7.96% | 4.90% |
| 1983 | 164.93 | 13.29 | 7.12 | 11.80% | 9.09% | 4.31% |
| 1984 | 167.24 | 16.84 | 7.83 | 11.51% | 11.02% | 5.11% |
| 1985 | 211.28 | 15.68 | 8.20 | 8.99% | 6.75% | 3.84% |
| 1986 | 242.17 | 14.43 | 8.19 | 7.22% | 6.96% | 3.58% |
| 1987 | 247.08 | 16.04 | 9.17 | 8.86% | 8.58% | 3.99% |
| 1988 | 277.72 | 24.12 | 10.22 | 9.14% | 7.67% | 3.77% |
| 1989 | 353.4 | 24.32 | 11.73 | 7.93% | 7.46% | 3.51% |
| 1990 | 330.22 | 22.65 | 12.35 | 8.07% | 7.19% | 3.89% |
| 1991 | 417.09 | 19.30 | 12.97 | 6.70% | 7.81% | 3.48% |
| 1992 | 435.71 | 20.87 | 12.64 | 6.68% | 9.83% | 3.55% |
| 1993 | 466.45 | 26.90 | 12.69 | 5.79% | 8.00% | 3.17% |
| 1994 | 459.27 | 31.75 | 13.36 | 7.82% | 7.17% | 3.55% |
| 1995 | 615.93 | 37.70 | 14.17 | 5.57% | 6.50% | 3.29% |
| 1996 | 740.74 | 40.63 | 14.89 | 6.41% | 7.92% | 3.20% |
| 1997 | 970.43 | 44.09 | 15.52 | 5.74% | 8.00% | 2.73% |
| 1998 | 1229.23 | 44.27 | 16.20 | 4.65% | 7.20% | 2.26% |
| 1999 | 1469.25 | 51.68 | 16.71 | 6.44% | 12.50% | 2.05% |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2000 | 1320.28 | 56.13 | 16.27 | 5.11% | 12.00% | 2.87% |
| 2001 | 1148.09 | 38.85 | 15.74 | 5.05% | 10.30% | 3.62% |
| 2002 | 879.82 | 46.04 | 16.08 | 3.81% | 8.00% | 4.10% |
| 2003 | 1111.91 | 54.69 | 17.88 | 4.25% | 11.00% | 3.69% |
| 2004 | 1211.92 | 67.68 | 19.407 | 4.22% | 8.50% | 3.65% |
| 2005 | 1248.29 | 76.45 | 22.38 | 4.39% | 8.00% | 4.08% |
| 2006 | 1418.3 | 87.72 | 25.05 | 4.70% | 12.50% | 4.16% |
| 2007 | 1468.36 | 82.54 | 27.73 | 4.02% | 5.00% | 4.37% |
| 2008 | 903.25 | 65.39 | 28.05 | 2.21% | 4.00% | 6.43% |
| 2009 | 1115.10 | 59.65 | 22.31 | 3.84% | 7.20% | 4.36% |
| 2010 | 1257.64 | 83.66 | 23.12 | 3.29% | 6.95% | 5.20% |

# ATTACHMENT A

**Water utility stocks have been met with some resistance since our January review. Indeed, all but a single issue covered in our *Survey* gave back some ground. And the exception advanced less than 10% in price. As a result, the group, as a whole, has slipped into the bottom half of the pack for Timeliness after residing in the top quartile last time around.**

**Wall Street's apprehension is not surprising, given that most of the companies reported disappointing earnings in the fourth-quarter. (First-quarter results were not released as of the day of this report). Indeed, revenue growth, although healthy thanks to continued progress on the regulatory front, seemed to fall short of expectations. Earnings, meanwhile, were further frustrated by the increasing costs of doing business.**

**The group's growth prospects going forward are not overly impressive either. With the exception of *American Water Works*, not a single stock in this industry stands out for Timeliness or 3- to 5-year price appreciation potential. The companies here face stiff headwinds on the cost front, as many of the country's water systems are aging and increasing in the need for repairs and maintenance. Financial constraints are of further concern, with the financial moves that are likely to be made in order to maintain infrastructures dilutive to share-net growth.**

### Insatiable Thirst

As an essential part of life for all forms of life, demand for water is undeniable. As a result, the delivery of this liquid, which water utilities are responsible for, is nearly as vital. Indeed, water providers are responsible for the safe and timely delivery of water to millions of Americans every day. Demand for water ought to continue to grow along with the population, creating the most favorable landscape for companies operating in this area.

### Favorable Backing

Although the services of most utilities reach across state lines nowadays, state regulatory boards have been put in place to maintain a balance of power between providers and customers. Among their main responsibilities is to review and rule on general rate case requests submitted by providers looking to recover costs. That being said, it is easy to recognize the importance that they play to utilities. Many boards have become far more business friendly in recent years, auguring well for utilities.

**INDUSTRY TIMELINESS: 54 (of 96)**

### Deleterious Costs

Despite a more favorable regulatory climate, providers still have troubles facing them. Infrastructures are decaying rapidly and, in many cases, need complete overhauls. The costs to make the repairs are exorbitant many operating in this space do not have the funds on hand to foot the bill. Indeed, most are strapped for cash and will have to look to outside financiers to keep up. Although consolidation trends present unique opportunities for those with the financial capabilities to throw their hat in the ring, such as *Aqua America*, others are just trying to stay afloat. Unfortunately, the financing costs to stay in business, whether it be additional share or debt offerings, will probably drown most and dilute shareholder gains moving ahead.

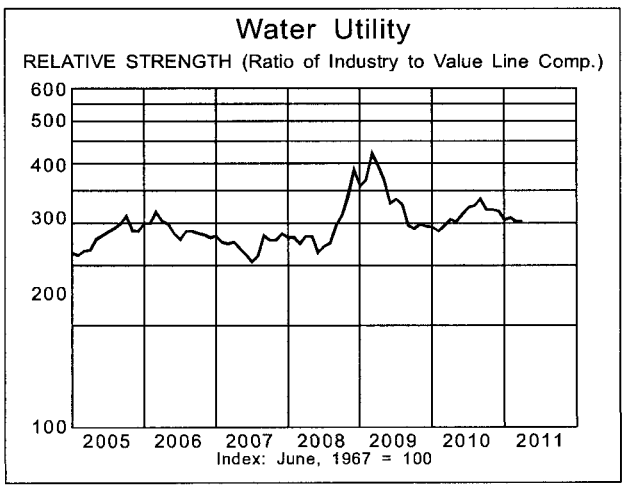
### Conclusion

The bulk of the stock's in this group have lost any luster they had from a growth perspective. Although the share-price weakness makes for more attractive entry points, only *American States Water* stands out for appreciation potential. That said, the dividends of many help make for worthwhile total return appeal in some cases. Again *American States Water*, along with *American Water Works*, and newcomer *SJW Corp.*, top the list on this account. (Readers can see more about *SJW* in the pages that follow). That said, we do think that there are better options out there for investors looking to add an income-producing stock to the portfolios. The average Electric Utility stock, for example generates better income. Plus, the financial constraints mentioned above sit in the back of our heads when it come to thinking about the payout down the road. Elsewhere *Aqua America* is an interesting issue. Its acquisition-friendly ways, especially its recent venture into the solar power arena, may interest more risk-tolerant investors. As always, we advise potential investors to take a more thorough look at the individual stocks before making any monetary commitments.

*Andre J. Costanza*

Composite Statistics: Water Utility Industry

| 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | 14-16 |
|---|---|---|---|---|---|---|---|
| 3691.8 | 3613.3 | 4137.7 | ***4510*** | ***4785*** | ***5050*** | Revenues ($mill) | ***5925*** |
| d168.8 | 372.0 | 399.6 | ***490*** | ***535*** | ***490*** | Net Profit ($mill) | ***750*** |
| NMF | NMF | 38.2% | ***39.0%*** | ***39.0%*** | ***39.0%*** | Income Tax Rate | ***39.0%*** |
| NMF | NMF | 1.5% | ***5.0%*** | ***7.0%*** | ***8.0%*** | AFUDC % to Net Profit | ***10.0%*** |
| 51.1% | 51.1% | 52.3% | ***52.0%*** | ***52.0%*** | ***51.0%*** | Long-Term Debt Ratio | ***51.0%*** |
| 48.9% | 48.9% | 47.7% | ***48.0%*** | ***48.0%*** | ***49.0%*** | Common Equity Ratio | ***49.0%*** |
| 13134.6 | 12795.2 | 13744.0 | ***14300*** | ***14950*** | ***15475*** | Total Capital ($mill) | ***16785*** |
| 14542.8 | 14542.8 | 15611.0 | ***17500*** | ***18250*** | ***18975*** | Net Plant ($mill) | ***21500*** |
| .3% | 4.4% | 4.4% | ***5.0%*** | ***5.5%*** | ***6.0%*** | Return on Total Cap'l | ***8.0%*** |
| NMF | 6.0% | 6.5% | ***7.0%*** | ***7.5%*** | ***8.0%*** | Return on Shr. Equity | ***9.5%*** |
| NMF | 6.0% | 6.5% | ***7.0%*** | ***7.5%*** | ***8.0%*** | Return on Com Equity | ***9.5%*** |
| NMF | 3.0% | 2.2% | ***3.0%*** | ***3.0%*** | ***3.5%*** | Retained to Com Eq | ***4.5%*** |
| NMF | 50% | 67% | ***65%*** | ***62%*** | ***57%*** | All Div'ds to Net Prof | ***55%*** |
| NMF | 20.7 | 19.3 | | ***Bold figures are Value Line estimates*** | | Avg Ann'l P/E Ratio | ***21.0*** |
| NMF | 1.25 | 1.29 | | | | Relative P/E Ratio | ***1.40*** |
| 2.2% | 2.4% | 3.5% | | | | Avg Ann'l Div'd Yield | ***2.6%*** |

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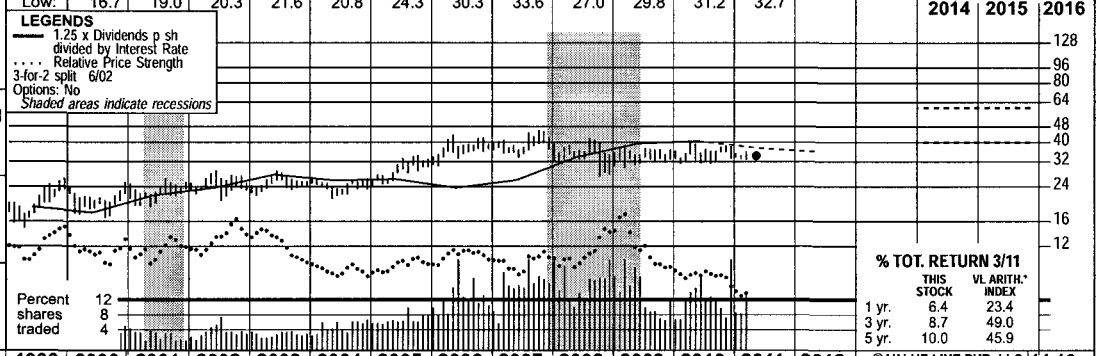
# AMER. STATES WATER NYSE-AWR

RECENT PRICE 34.33 | P/E RATIO 14.5 (Trailing: 18.0 Median: 22.0) | RELATIVE P/E RATIO 0.87 | DIV'D YLD 3.0% | VALUE LINE

TIMELINESS 3 Raised 11/19/10
SAFETY 3 New 2/4/00
TECHNICAL 2 Raised 4/8/11
BETA .75 (1.00 = Market)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 25.3 | 26.4 | 29.0 | 26.8 | 34.6 | 43.8 | 46.1 | 42.0 | 38.8 | 39.6 | 36.4 | |
| Low: | 16.7 | 19.0 | 20.3 | 21.6 | 20.8 | 24.3 | 30.3 | 33.6 | 27.0 | 29.8 | 31.2 | 32.7 |

Target Price Range 2014 | 2015 | 2016




**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 60 | (+75%) | 17% |
| Low | 40 | (+15%) | 7% |

**Insider Decisions**

| | M | J | J | A | S | O | N | D | J |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Options | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 |
| to Sell | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 |

**Institutional Decisions**

| | 2Q2010 | 3Q2010 | 4Q2010 |
|---|---|---|---|
| to Buy | 46 | 53 | 59 |
| to Sell | 55 | 47 | 51 |
| Hld's(000) | 10863 | 11195 | 11086 |

**% TOT. RETURN 3/11**

| | THIS STOCK | VL ARITH.* INDEX |
|---|---|---|
| 1 yr. | 6.4 | 23.4 |
| 3 yr. | 8.7 | 49.0 |
| 5 yr. | 10.0 | 45.9 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11.03 | 11.37 | 11.44 | 11.02 | 12.91 | 12.17 | 13.06 | 13.78 | 13.98 | 13.61 | 14.06 | 15.76 | 17.49 | 18.42 | 19.48 | 21.41 | *21.05* | *22.05* | Revenues per sh | *25.00* |
| 1.75 | 1.75 | 1.85 | 2.04 | 2.26 | 2.20 | 2.53 | 2.54 | 2.08 | 2.23 | 2.64 | 2.89 | 3.31 | 3.37 | 3.40 | 4.34 | *4.15* | *4.35* | "Cash Flow" per sh | *4.85* |
| 1.03 | 1.13 | 1.04 | 1.08 | 1.19 | 1.28 | 1.35 | 1.34 | .78 | 1.05 | 1.32 | 1.33 | 1.62 | 1.55 | 1.62 | 2.25 | *2.10* | *2.20* | Earnings per sh A | *2.60* |
| .81 | .82 | .83 | .84 | .85 | .86 | .87 | .87 | .88 | .89 | .90 | .91 | .96 | 1.00 | 1.01 | 1.04 | *1.08* | *1.12* | Div'd Decl'd per sh B■ | *1.25* |
| 2.19 | 2.40 | 2.58 | 3.11 | 4.30 | 3.03 | 3.18 | 2.68 | 3.76 | 5.03 | 4.24 | 3.91 | 2.89 | 4.45 | 4.18 | 4.24 | *4.15* | *4.35* | Cap'l Spending per sh | *5.00* |
| 10.29 | 11.01 | 11.24 | 11.48 | 11.82 | 12.74 | 13.22 | 14.05 | 13.97 | 15.01 | 15.72 | 16.64 | 17.53 | 17.95 | 19.39 | 20.26 | *20.80* | *20.50* | Book Value per sh | *20.75* |
| 11.77 | 13.33 | 13.44 | 13.44 | 13.44 | 15.12 | 15.12 | 15.18 | 15.21 | 16.75 | 16.80 | 17.05 | 17.23 | 17.30 | 18.53 | 18.63 | *19.25* | *19.50* | Common Shs Outst'g C | *20.00* |
| 11.6 | 12.6 | 14.5 | 15.5 | 17.1 | 15.9 | 16.7 | 18.3 | 31.9 | 23.2 | 21.9 | 27.7 | 24.0 | 22.6 | 21.2 | 15.5 | *Bold figures are* | | Avg Ann'l P/E Ratio | *19.0* |
| .78 | .79 | .84 | .81 | .97 | 1.03 | .86 | 1.00 | 1.82 | 1.23 | 1.17 | 1.50 | 1.27 | 1.36 | 1.41 | 1.00 | *Value Line* | | Relative P/E Ratio | *1.25* |
| 6.7% | 5.8% | 5.5% | 5.0% | 4.2% | 4.2% | 3.9% | 3.6% | 3.5% | 3.6% | 3.1% | 2.5% | 2.5% | 2.9% | 2.9% | 3.0% | *estimates* | | Avg Ann'l Div'd Yield | *2.5%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $361.2 mill. **Due in 5 Yrs** $296.9 mill.
**LT Debt** $299.8 mill. **LT Interest** $21.6 mill.
(LT interest earned: 4.9x: total interest coverage: 4.4x) (44% of Cap'l)

**Leases, Uncapitalized:** Annual rentals $3.3 mill.

**Pension Assets-12/10** $90.2 mill. **Oblig.** $118.8 mill.

**Pfd Stock** None.

**Common Stock** 18,654,106 shs. as of 3/9/11

**MARKET CAP: $650 million (Small Cap)**

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 197.5 | 209.2 | 212.7 | 228.0 | 236.2 | 268.6 | 301.4 | 318.7 | 361.0 | 398.9 | *405* | *430* | Revenues ($mill) | *500* |
| 20.4 | 20.3 | 11.9 | 16.5 | 22.5 | 23.1 | 28.0 | 26.8 | 29.5 | 42.7 | *40.0* | *43.0* | Net Profit ($mill) | *52.0* |
| 43.0% | 38.9% | 43.5% | 37.4% | 47.0% | 40.5% | 42.6% | 37.8% | 38.9% | 42.6% | *42.0%* | *40.0%* | Income Tax Rate | *40.0%* |
| -- | -- | -- | -- | -- | 12.2% | 8.5% | 6.9% | 3.2% | *5.0%* | *5.0%* | *5.0%* | AFUDC % to Net Profit | *5.0%* |
| 54.9% | 52.0% | 52.0% | 47.7% | 50.4% | 48.6% | 46.9% | 46.2% | 45.9% | 44.3% | *43.0%* | *45.0%* | Long-Term Debt Ratio | *49.5%* |
| 44.7% | 48.0% | 48.0% | 52.3% | 49.6% | 51.4% | 53.1% | 53.8% | 54.1% | 55.7% | *57.0%* | *55.0%* | Common Equity Ratio | *50.5%* |
| 447.6 | 444.4 | 442.3 | 480.4 | 532.5 | 551.6 | 569.4 | 577.0 | 665.0 | 677.4 | *700* | *725* | Total Capital ($mill) | *825* |
| 539.8 | 563.3 | 602.3 | 664.2 | 713.2 | 750.6 | 776.4 | 825.3 | 866.4 | 905.2 | *950* | *1000* | Net Plant ($mill) | *1150* |
| 6.1% | 6.5% | 4.6% | 5.2% | 5.4% | 6.0% | 6.7% | 6.4% | 5.9% | *7.5%* | *7.5%* | *7.5%* | Return on Total Cap'l | *8.0%* |
| 10.1% | 9.5% | 5.6% | 6.6% | 8.5% | 8.1% | 9.3% | 8.6% | 8.2% | 11.3% | *11.0%* | *11.0%* | Return on Shr. Equity | *12.5%* |
| 10.1% | 9.5% | 5.6% | 6.6% | 8.5% | 8.1% | 9.3% | 8.6% | 8.2% | 11.3% | *11.0%* | *11.0%* | Return on Com Equity | *12.5%* |
| 3.6% | 3.3% | NMF | 1.0% | 2.8% | 2.7% | 3.9% | 3.1% | 3.2% | 6.2% | *5.0%* | *5.5%* | Retained to Com Eq | *6.5%* |
| 65% | 65% | 113% | 84% | 67% | 67% | 58% | 64% | 61% | 45% | *52%* | *51%* | All Div'ds to Net Prof | *48%* |

| CURRENT POSITION ($MILL.) | 2008 | 2009 | 12/31/10 |
|---|---|---|---|
| Cash Assets | 7.3 | 1.7 | 4.2 |
| Other | 83.3 | 94.3 | 200.8 |
| Current Assets | 90.6 | 96.0 | 205.0 |
| Accts Payable | 36.6 | 33.9 | 36.2 |
| Debt Due | 75.3 | 18.1 | 61.4 |
| Other | 25.5 | 47.7 | 81.2 |
| Current Liab. | 137.4 | 99.7 | 178.8 |
| Fix. Chg. Cov. | 293% | 352% | *441%* |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 4.5% | 6.0% | *4.5%* |
| "Cash Flow" | 5.0% | 8.0% | *5.5%* |
| Earnings | 4.0% | 8.5% | *8.0%* |
| Dividends | 1.5% | 2.5% | *3.5%* |
| Book Value | 4.5% | 5.0% | *3.0%* |

| Cal-endar | QUARTERLY REVENUES ($ mill.) Mar.31 | Jun. 30 | Sep. 30 | Dec. 31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 68.9 | 80.3 | 85.3 | 84.2 | 318.7 |
| 2009 | 79.6 | 93.6 | 101.5 | 86.3 | 361.0 |
| 2010 | 88.4 | 95.5 | 111.3 | 103.7 | 398.9 |
| 2011 | *93.0* | *102* | *115* | *95.0* | *405* |
| 2012 | *95.0* | *110* | *125* | *100* | *430* |

| Cal-endar | EARNINGS PER SHARE A Mar.31 | Jun. 30 | Sep. 30 | Dec. 31 | Full Year |
|---|---|---|---|---|---|
| 2008 | .30 | .53 | .26 | .43 | 1.55 |
| 2009 | .28 | .64 | .52 | .18 | 1.62 |
| 2010 | .45 | .47 | .62 | .71 | 2.25 |
| 2011 | *.45* | *.55* | *.65* | *.45* | *2.10* |
| 2012 | *.47* | *.58* | *.69* | *.46* | *2.20* |

| Cal-endar | QUARTERLY DIVIDENDS PAID B■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .235 | .235 | .235 | .250 | .96 |
| 2008 | .250 | .250 | .250 | .250 | 1.00 |
| 2009 | .250 | .250 | .250 | .260 | 1.01 |
| 2010 | .260 | .260 | .260 | .260 | 1.04 |
| 2011 | .260 | | | | |

**BUSINESS:** American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Company, it supplies water to more than 250,000 customers in 75 communities in 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to nearly 23,250 customers in the city of Big Bear Lake and in areas of San Bernardino County. Acquired Chaparral City Water of Arizona (10/00). Has 703 employees. Officers & directors own 2.6% of common stock (4/10 Proxy). Chairman: Lloyd Ross. President & CEO: Robert J. Sprowls. Inc: CA. Addr: 630 East Foothill Boulevard, San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.

**Favorable regulatory backing enabled American States Water to have a blowout fourth quarter.** Indeed, the water utility posted earnings of $0.71 a share, nearly four times the year-before tally. Revenues jumped 20%, to $103.7 million, thanks to the recognition of retroactive revenues from earlier in the year associated with rate increases handed down by the California Public Utilities Commission (CPUC) in regard to general rate cases for Regions II and III.

**Growth will be tough to come by this year due to the stiffer comparisons . . .** Although the benefits were all realized in the final quarter of the year, the CPUC's ruling added $0.30 a share to the bottom line for the full-year 2010. AWR is subject to regulatory rulings so the gain is considered typical and not looked at as a nonrecurring. But we do not expect a similar occurrence this year.

**. . . as well as the continued escalation of infrastructure costs.** AWR's operating costs remain on the rise and are not likely to slow anytime soon, given that its water systems are growing older and require attention. Its pockets are all but empty, however, and the company will have to continue to seek outside financiers to stay afloat. Debt and equity issuances have become commonplace, and will likely remain a drag on earnings growth going forward. As a result, we look for share earnings to take a step back this year and to show modest improvement in 2012. That said, the company is slated to file a general rate case for all three regions in July of this year. A ruling is expected to take 18 months. A favorable verdict could prove our 2012 estimate conservative.

**Capital projects are likely to remain a longer-term concern too.** There is no end in sight to the infrastructure investment that is necessary. This industry is capital intensive, but unfortunately AWR is cash-strapped. As a result, the stock does not stand out for price appreciation potential for the coming six to 12 months or the 3 to 5 years ahead. The financial constraints lead to concerns about the company's dividend, which despite being above the average offering in our *Survey*, loses some luster when compared to other utilities.

*Andre J. Costanza* *April 22, 2011*

(A) Primary earnings. Excludes nonrecurring gains/(losses): '04, 14¢; '05, 25¢; '06, 6¢; '08, (27¢); '10, (55¢). Next earnings report due early May. Quarterly egs. may not add due to rounding.
(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for split.

| | |
|---|---|
| Company's Financial Strength | B++ |
| Stock's Price Stability | 85 |
| Price Growth Persistence | 70 |
| Earnings Predictability | 85 |

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# CALIFORNIA WATER NYSE-CWT

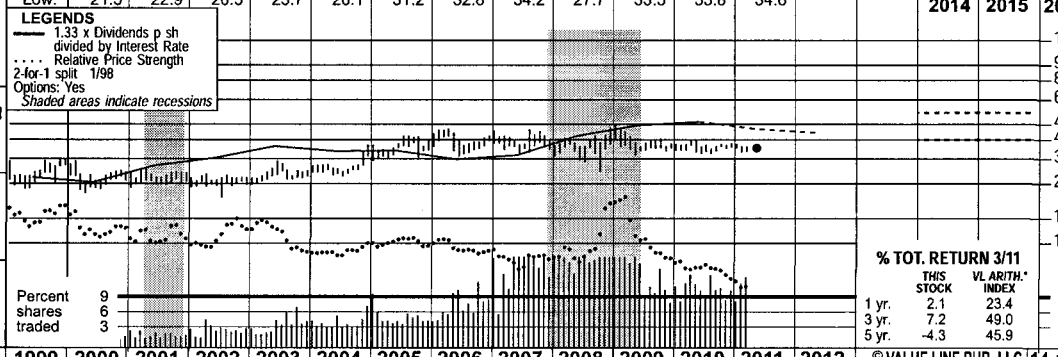
RECENT PRICE **36.39** | P/E RATIO **18.8** (Trailing: 20.1 / Median: 22.0) | RELATIVE P/E RATIO **1.12** | DIV'D YLD **3.4%** | VALUE LINE

**TIMELINESS** 4 Lowered 3/4/11
**SAFETY** 3 Lowered 7/27/07
**TECHNICAL** 3 Lowered 11/12/10
**BETA** .70 (1.00 = Market)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 31.4 | 28.6 | 26.9 | 31.4 | 37.9 | 42.1 | 45.8 | 45.4 | 46.6 | 48.3 | 39.7 | 38.3 |
| Low: | 21.5 | 22.9 | 20.5 | 23.7 | 26.1 | 31.2 | 32.8 | 34.2 | 27.7 | 33.5 | 33.8 | 34.6 |

**Target Price Range** 2014 | 2015 | 2016

LEGENDS
— 1.33 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 1/98
Options: Yes
*Shaded areas indicate recessions*




**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 55 | (+50%) | 14% |
| Low | 40 | (10%) | 6% |

**Insider Decisions**

| | M | J | J | A | S | O | N | D | J |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Options | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 |
| to Sell | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |

**Institutional Decisions**

| | 2Q2010 | 3Q2010 | 4Q2010 |
|---|---|---|---|
| to Buy | 43 | 53 | 62 |
| to Sell | 72 | 53 | 48 |
| Hld's(000) | 8640 | 9706 | 10125 |

**% TOT. RETURN 3/11**

| | THIS STOCK | VL ARITH.* INDEX |
|---|---|---|
| 1 yr. | 2.1 | 23.4 |
| 3 yr. | 7.2 | 49.0 |
| 5 yr. | -4.3 | 45.9 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13.17 | 14.48 | 15.48 | 14.76 | 15.96 | 16.16 | 16.26 | 17.33 | 16.37 | 17.18 | 17.44 | 16.20 | 17.76 | 19.80 | 21.64 | 22.10 | *21.75* | *21.00* | Revenues per sh | *23.15* |
| 2.07 | 2.50 | 2.92 | 2.60 | 2.75 | 2.52 | 2.20 | 2.65 | 2.51 | 2.83 | 3.03 | 2.71 | 3.12 | 3.72 | 3.87 | 3.86 | *4.00* | *3.90* | "Cash Flow" per sh | *4.05* |
| 1.17 | 1.51 | 1.83 | 1.45 | 1.53 | 1.31 | .94 | 1.25 | 1.21 | 1.46 | 1.47 | 1.34 | 1.50 | 1.90 | 1.95 | 1.81 | *2.00* | *2.15* | Earnings per sh A | *2.35* |
| 1.02 | 1.04 | 1.06 | 1.07 | 1.09 | 1.10 | 1.12 | 1.12 | 1.12 | 1.13 | 1.14 | 1.15 | 1.16 | 1.17 | 1.18 | 1.19 | *1.23* | *1.27* | Div'd Decl'd per sh B ■ | *1.38* |
| 2.17 | 2.83 | 2.61 | 2.74 | 3.44 | 2.45 | 4.09 | 5.82 | 4.39 | 3.73 | 4.01 | 4.28 | 3.68 | 4.82 | 5.33 | 5.95 | *5.55* | *5.20* | Cap'l Spending per sh | *5.55* |
| 11.72 | 12.22 | 13.00 | 13.38 | 13.43 | 12.90 | 12.95 | 13.12 | 14.44 | 15.66 | 15.79 | 18.15 | 18.50 | 19.44 | 20.26 | 20.91 | *20.85* | *22.80* | Book Value per sh C | *23.70* |
| 12.54 | 12.62 | 12.62 | 12.62 | 12.94 | 15.15 | 15.18 | 15.18 | 16.93 | 18.37 | 18.39 | 20.66 | 20.67 | 20.72 | 20.77 | 20.83 | *23.00* | *25.00* | Common Shs Outst'g D | *27.00* |
| 13.7 | 11.9 | 12.6 | 17.8 | 17.8 | 19.6 | 27.1 | 19.8 | 22.1 | 20.1 | 24.9 | 29.2 | 26.1 | 19.8 | 19.7 | 20.3 | *Bold figures are* | | Avg Ann'l P/E Ratio | *20.0* |
| .92 | .75 | .73 | .93 | 1.01 | 1.27 | 1.39 | 1.08 | 1.26 | 1.06 | 1.33 | 1.58 | 1.39 | 1.19 | 1.31 | 1.30 | *Value Line* | | Relative P/E Ratio | *1.35* |
| 6.4% | 5.8% | 4.6% | 4.2% | 4.0% | 4.3% | 4.4% | 4.5% | 4.2% | 3.9% | 3.1% | 2.9% | 3.0% | 3.1% | 3.1% | 3.2% | *estimates* | | Avg Ann'l Div'd Yield | *2.9%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $505.3 mill. **Due in 5 Yrs** $43.9 mill.
**LT Debt** $479.2 mill. **LT Interest** $27.9 mill.

(LT interest earned: 3.4x; total int. cov.: 3.2x)

**Pension Assets-12/10** $139.0 mill. **Oblig.** $269.9 mill.

**Pfd Stock** None

**Common Stock** 20,833,303 shs. **as of 2/24/11**

**MARKET CAP: $750 million (Small Cap)**

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 246.8 | 263.2 | 277.1 | 315.6 | 320.7 | 334.7 | 367.1 | 410.3 | 449.4 | 460.4 | *500* | *525* | Revenues ($mill) E | *650* |
| 14.4 | 19.1 | 19.4 | 26.0 | 27.2 | 25.6 | 31.2 | 39.8 | 40.6 | 37.7 | *47.5* | *52.0* | Net Profit ($mill) | *63.0* |
| 39.4% | 39.7% | 39.9% | 39.6% | 42.4% | 37.4% | 39.9% | 37.7% | 40.3% | 39.5% | *39.0%* | *39.0%* | Income Tax Rate | *39.0%* |
| -- | -- | 10.3% | 3.2% | 3.3% | 10.6% | 8.3% | 8.6% | 7.6% | 4.2% | *10.0%* | *10.0%* | AFUDC % to Net Profit | *10.0%* |
| 50.3% | 55.3% | 50.2% | 48.6% | 48.3% | 43.5% | 42.9% | 41.6% | 47.1% | 52.4% | *50.0%* | *47.0%* | Long-Term Debt Ratio | *49.0%* |
| 48.8% | 44.0% | 49.1% | 50.8% | 51.1% | 55.9% | 56.6% | 58.4% | 52.9% | 47.6% | *50.0%* | *53.0%* | Common Equity Ratio | *51.0%* |
| 402.7 | 453.1 | 498.4 | 565.9 | 568.1 | 670.1 | 674.9 | 690.4 | 794.9 | 914.7 | *975* | *1070* | Total Capital ($mill) | *1250* |
| 624.3 | 697.0 | 759.5 | 800.3 | 862.7 | 941.5 | 1010.2 | 1112.4 | 1198.1 | 1294.3 | *1370* | *1350* | Net Plant ($mill) | *1625* |
| 5.3% | 5.9% | 5.6% | 6.1% | 6.3% | 5.2% | 5.9% | 7.1% | 6.5% | 5.5% | *6.5%* | *6.5%* | Return on Total Cap'l | *7.0%* |
| 7.2% | 9.4% | 7.8% | 8.9% | 9.3% | 6.8% | 8.1% | 9.9% | 9.6% | 8.6% | *10.0%* | *9.0%* | Return on Shr. Equity | *10.0%* |
| 7.2% | 9.5% | 7.9% | 9.0% | 9.3% | 6.8% | 8.1% | 9.9% | 9.6% | 8.6% | *10.0%* | *9.0%* | Return on Com Equity | *10.0%* |
| NMF | 1.0% | .7% | 2.1% | 2.1% | 1.0% | 1.8% | 3.8% | 3.8% | 3.0% | *4.5%* | *3.5%* | Retained to Com Eq | *4.0%* |
| 119% | 90% | 91% | 77% | 78% | 86% | 77% | 61% | 60% | 66% | *57%* | *61%* | All Div'ds to Net Prof | *59%* |

| CURRENT POSITION ($MILL.) | 2008 | 2009 | 12/31/10 |
|---|---|---|---|
| Cash Assets | 13.9 | 9.9 | 42.3 |
| Other | 65.9 | 82.3 | 83.9 |
| Current Assets | 79.8 | 92.2 | 126.2 |
| Accts Payable | 45.1 | 43.7 | 39.5 |
| Debt Due | 42.8 | 25.0 | 26.1 |
| Other | 35.3 | 41.7 | 41.7 |
| Current Liab. | 123.2 | 110.4 | 107.3 |
| Fix. Chg. Cov. | 398% | 430% | 390% |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 3.0% | 4.5% | 1.5% |
| "Cash Flow" | 4.0% | 6.5% | 1.0% |
| Earnings | 3.0% | 6.5% | 3.0% |
| Dividends | 1.0% | 1.0% | 2.5% |
| Book Value | 4.5% | 5.5% | 2.5% |

| Cal-endar | QUARTERLY REVENUES ($ mill.)E Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 72.9 | 105.6 | 131.7 | 100.1 | 410.3 |
| 2009 | 86.6 | 116.7 | 139.2 | 106.9 | 449.4 |
| 2010 | 90.3 | 118.3 | 146.3 | 105.5 | 460.4 |
| 2011 | *95.0* | *130* | *160* | *115* | *500* |
| 2012 | *100* | *135* | *170* | *120* | *525* |

| Cal-endar | EARNINGS PER SHARE A Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | .01 | .48 | 1.06 | .35 | 1.90 |
| 2009 | .12 | .58 | .94 | .31 | 1.95 |
| 2010 | .10 | .50 | .98 | .23 | 1.81 |
| 2011 | *.11* | *.55* | *1.05* | *.29* | *2.00* |
| 2012 | *.12* | *.60* | *1.11* | *.32* | *2.15* |

| Cal-endar | QUARTERLY DIVIDENDS PAID B ■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .290 | .290 | .290 | .290 | 1.16 |
| 2008 | .293 | .293 | .293 | .293 | 1.17 |
| 2009 | .295 | .295 | .295 | .295 | 1.18 |
| 2010 | .2975 | .2975 | .2975 | .2975 | 1.19 |
| 2011 | .3075 | | | | |

**BUSINESS:** California Water Service Group provides regulated and nonregulated water service to roughly 470,200 customers in 83 communities in California, Washington, New Mexico, and Hawaii. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired Rio Grande Corp; West Hawaii Utilities (9/08). Revenue breakdown, '10: residential, 72%; business, 20%; public authorities, 4%; industrial, 4%. '10 reported depreciation rate: 2.3%. Has roughly 1,127 employees. Chairman: Robert W. Foy. President & CEO: Peter C. Nelson (4/11 Proxy). Inc.: Delaware. Address: 1720 North First Street, San Jose, California 95112-4598. Telephone: 408-367-8200. Internet: www.calwatergroup.com.

**We look for California Water Service Group to bounce back nicely this year.** The water utility disappointed in the fourth quarter of 2010, reporting earnings of $0.23 a share, well below the year-earlier mark and estimates. The top line dipped 1%, as the net effect of WRAM and the MCBA resulted in a decrease of $2.9 million in revenue. These usage of these methodologies added $5.2 million to the books in the same period last year. But there should not be any lagging effects with the transition to a three year general rate case cycle in California now in the rear view mirror. In fact, the regulatory landscape ought to be complementary after the California Public Utilities Commission recently approved CWT's rate case authorizing the company to recognize an additional $25 million in annualized revenues and another $8 million in funds to be obtained at the conclusion of certain projects. With that, we look for a 10% share-net advance in 2011, despite the rising costs of doing business (see below).

**Growth will likely taper off in 2012 and thereafter, however.** U.S. water infrastructures are extremely capital-intensive. Costs of maintenance are adding up as many systems require significant investment. CWT is reasonably cash-strapped, though, and will probably have to continue seeking outside financing. Though necessary, such ventures come at a price, and the initiatives will probably cause earnings growth to begin slowing.

**We do not recommend this issue to most.** The financing costs should weigh on shareholder gains for the foreseeable future. Although the steadily increasing dividend is a boon, it is not enough to make up for the lack of earnings power in our opinion. There are better income vehicles out there, especially in the Electric Utilities Industry. We also worry that the dearth of cash on hand could potentially affect the dividend payout if the operating environment remains so capital intensive. It should be noted that CWT announced a 2-for-1 stock split and a stock offering that looks to be contingent upon approval of the former action. If granted shareholder approval, both are slated to go through in June. Our presentation does not account for the split at this time.

*Andre J. Costanza* *April 22, 2011*

(A) Basic EPS. Excl. nonrecurring gain (loss): '00, (7¢); '01, 4¢; '02, 8¢. Next earnings report due April 28th.
(B) Dividends historically paid in early Feb., May, Aug., and Nov. ■ Div'd reinvestment plan available.
(C) Incl. deferred charges. In '10: $2.2 mill., $0.11/sh.
(D) In millions, adjusted for split.
(E) Excludes non-reg. rev.

| | |
|---|---|
| Company's Financial Strength | B+ |
| Stock's Price Stability | 90 |
| Price Growth Persistence | 70 |
| Earnings Predictability | 85 |

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# SJW CORP. NYSE-SJW

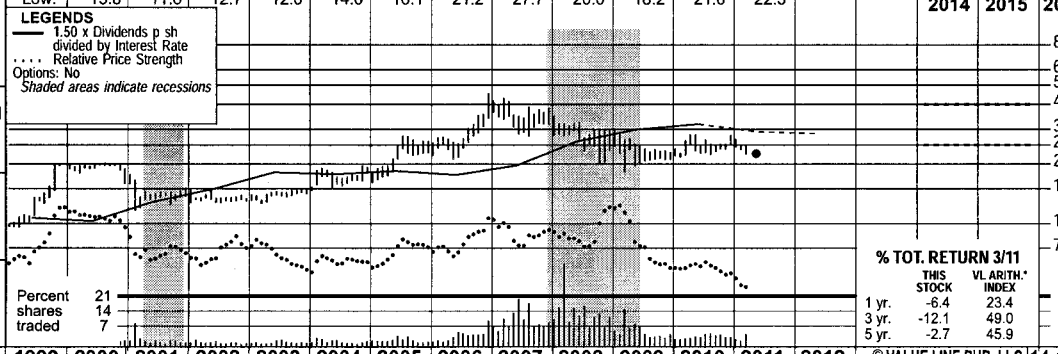
RECENT PRICE **22.65** | P/E RATIO **NMF** (Trailing: 27.0 / Median: 22.0) | RELATIVE P/E RATIO **NMF** | DIV'D YLD **3.0%** | VALUE LINE

**TIMELINESS** 4 New 4/22/11
**SAFETY** 3 New 4/22/11
**TECHNICAL** 3 New 4/22/11
**BETA** .90 (1.00 = Market)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 20.3 | 17.8 | 15.1 | 15.0 | 19.6 | 27.8 | 45.3 | 43.0 | 35.1 | 30.4 | 28.2 | 26.8 |
| Low: | 15.8 | 11.6 | 12.7 | 12.6 | 14.6 | 16.1 | 21.2 | 27.7 | 20.0 | 18.2 | 21.6 | 22.3 |

**Target Price Range** 2014 | 2015 | 2016

LEGENDS
— 1.50 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: No
*Shaded areas indicate recessions*



**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 40 | (+75%) | 17% |
| Low | 25 | (+10%) | 6% |

**Insider Decisions**

| | M | J | J | A | S | O | N | D | J |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Options | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| to Sell | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

**Institutional Decisions**

| | 2Q2010 | 3Q2010 | 4Q2010 |
|---|---|---|---|
| to Buy | 31 | 26 | 34 |
| to Sell | 32 | 28 | 26 |
| Hld's(000) | 8930 | 8969 | 8640 |

Percent shares traded 21 14 7

**% TOT. RETURN 3/11**

| | THIS STOCK | VL ARITH.* INDEX |
|---|---|---|
| 1 yr. | -6.4 | 23.4 |
| 3 yr. | -12.1 | 49.0 |
| 5 yr. | -2.7 | 45.9 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.99 | 5.39 | 5.79 | 5.58 | 6.40 | 6.74 | 7.45 | 7.97 | 8.20 | 9.14 | 9.86 | 10.35 | 11.25 | 12.12 | 11.68 | 11.62 | *11.20* | *11.35* | Revenues per sh | *12.00* |
| .98 | 1.43 | 1.27 | 1.26 | 1.43 | 1.23 | 1.49 | 1.55 | 1.75 | 1.89 | 2.21 | 2.38 | 2.30 | 2.44 | 2.21 | 2.37 | *2.40* | *2.40* | "Cash Flow" per sh | *2.60* |
| .59 | .96 | .80 | .76 | .87 | .58 | .77 | .78 | .91 | .87 | 1.12 | 1.19 | 1.04 | 1.08 | .81 | .84 | *.90* | *1.00* | Earnings per sh A | *1.30* |
| .35 | .37 | .38 | .39 | .40 | .41 | .43 | .46 | .49 | .51 | .53 | .57 | .61 | .65 | .66 | .68 | *.69* | *.74* | Div'd Decl'd per sh B■ | *.82* |
| .96 | 1.06 | 1.27 | 1.81 | 1.77 | 1.89 | 2.63 | 2.06 | 3.41 | 2.31 | 2.83 | 3.87 | 6.62 | 3.79 | 3.17 | 5.65 | *5.15* | *5.00* | Cap'l Spending per sh | *4.80* |
| 5.58 | 6.31 | 7.02 | 7.53 | 7.88 | 7.90 | 8.17 | 8.40 | 9.11 | 10.11 | 10.72 | 12.48 | 12.90 | 13.99 | 13.66 | 13.75 | *14.90* | *15.70* | Book Value per sh | *17.00* |
| 19.50 | 19.02 | 19.02 | 19.01 | 18.27 | 18.27 | 18.27 | 18.27 | 18.27 | 18.27 | 18.27 | 18.28 | 18.36 | 18.18 | 18.50 | 18.55 | *20.50* | *22.00* | Common Shs Outst'g C | *25.00* |
| 9.9 | 6.8 | 11.2 | 13.1 | 15.5 | 33.1 | 18.5 | 17.3 | 15.4 | 19.6 | 19.7 | 23.5 | 33.4 | 26.2 | 28.7 | 29.5 | *Bold figures are* | | Avg Ann'l P/E Ratio | *25.0* |
| .66 | .43 | .65 | .68 | .88 | 2.15 | .95 | .94 | .88 | 1.04 | 1.05 | 1.27 | 1.77 | 1.58 | 1.91 | 1.89 | *Value Line* | | Relative P/E Ratio | *1.65* |
| 6.0% | 5.7% | 4.3% | 3.9% | 3.0% | 2.1% | 3.0% | 3.4% | 3.5% | 3.0% | 2.4% | 2.0% | 1.7% | 2.3% | 2.8% | 2.8% | *estimates* | | Avg Ann'l Div'd Yield | *2.5%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $300.8 mill. **Due in 5 Yrs** $12.4 mill.
**LT Debt** $295.7 mill. **LT Interest** $15.9 mill.
(LT interest earned: 2.7x: total interest coverage: 2.6x) (54% of Cap'l)

**Leases, Uncapitalized:** Annual rentals $4.2 mill.

**Pension Assets-12/10** $10.8 mill. **Oblig.** $58.8 mill.

**Pfd Stock** None.

**Common Stock** 18,577,012 shs. as of 2/8/11

**MARKET CAP: $425 million (Small Cap)**

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 136.1 | 145.7 | 149.7 | 166.9 | 180.1 | 189.2 | 206.6 | 220.3 | 216.1 | 215.6 | *230* | *250* | Revenues ($mill) | *300* |
| 14.0 | 14.2 | 16.7 | 16.0 | 20.7 | 22.2 | 19.3 | 20.2 | 15.2 | 15.6 | *18.0* | *22.0* | Net Profit ($mill) | *32.0* |
| 34.5% | 40.4% | 36.2% | 42.1% | 41.6% | 40.8% | 39.4% | 39.5% | 40.4% | 39.7% | *40.0%* | *40.0%* | Income Tax Rate | *39.0%* |
| 4.4% | 4.2% | 1.6% | 2.1% | 1.6% | 2.1% | 2.7% | 2.3% | 2.0% | 3.6% | *5.0%* | *5.0%* | AFUDC % to Net Profit | *5.0%* |
| 42.4% | 41.7% | 45.6% | 43.7% | 42.6% | 41.8% | 47.7% | 46.0% | 49.4% | 53.7% | *51.0%* | *50.0%* | Long-Term Debt Ratio | *47.0%* |
| 57.6% | 58.3% | 54.4% | 56.3% | 57.4% | 58.2% | 52.3% | 54.0% | 50.6% | 46.3% | *49.0%* | *50.0%* | Common Equity Ratio | *53.0%* |
| 259.4 | 263.5 | 306.0 | 328.3 | 341.2 | 391.8 | 453.2 | 470.9 | 499.6 | 550.7 | *625* | *700* | Total Capital ($mill) | *900* |
| 367.8 | 390.8 | 428.5 | 456.8 | 484.8 | 541.7 | 645.5 | 684.2 | 718.5 | 785.5 | *850* | *930* | Net Plant ($mill) | *1175* |
| 6.7% | 6.9% | 6.9% | 6.5% | 7.6% | 7.0% | 5.7% | 5.8% | 4.4% | 4.2% | *4.5%* | *4.5%* | Return on Total Cap'l | *6.0%* |
| 9.4% | 9.3% | 10.0% | 8.7% | 10.6% | 9.7% | 8.2% | 8.0% | 6.0% | 6.1% | *6.0%* | *6.5%* | Return on Shr. Equity | *7.5%* |
| 9.4% | 9.3% | 10.0% | 8.7% | 10.6% | 9.7% | 8.2% | 8.0% | 6.0% | 6.1% | *6.0%* | *6.5%* | Return on Com Equity | *7.5%* |
| 4.1% | 3.8% | 4.7% | 3.6% | 5.6% | 5.2% | 3.5% | 3.3% | 1.2% | 1.2% | *1.5%* | *2.0%* | Retained to Com Eq | *2.5%* |
| 56% | 59% | 53% | 58% | 47% | 46% | 57% | 59% | 80% | 81% | *74%* | *74%* | All Div'ds to Net Prof | *67%* |

| CURRENT POSITION ($MILL.) | 2008 | 2009 | 12/31/10 |
|---|---|---|---|
| Cash Assets | 3.4 | 1.4 | 1.7 |
| Other | 28.6 | 26.6 | 36.3 |
| Current Assets | 32.0 | 28.0 | 38.0 |
| Accts Payable | 5.8 | 6.6 | 5.5 |
| Debt Due | 19.1 | 6.9 | 5.1 |
| Other | 18.4 | 18.5 | 18.6 |
| Current Liab. | 43.3 | 32.0 | 29.2 |
| Fix. Chg. Cov. | 293% | 352% | *400%* |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 6.5% | 5.5% | *5.0%* |
| "Cash Flow" | 6.0% | 3.5% | *6.5%* |
| Earnings | 2.0% | -1.5% | *9.0%* |
| Dividends | 5.0% | 5.5% | *4.0%* |
| Book Value | 6.0% | 6.5% | *3.5%* |

| Cal-endar | QUARTERLY REVENUES ($ mill.) Mar.31 | Jun. 30 | Sep. 30 | Dec. 31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 41.3 | 60.0 | 69.5 | 49.5 | 220.3 |
| 2009 | 40.0 | 58.2 | 69.3 | 48.6 | 216.1 |
| 2010 | 40.4 | 54.1 | 70.3 | 50.8 | 215.6 |
| 2011 | *43.0* | *58.0* | *75.0* | *54.0* | *230* |
| 2012 | *47.0* | *63.0* | *81.0* | *59.0* | *250* |

| Cal-endar | EARNINGS PER SHARE A Mar.31 | Jun. 30 | Sep. 30 | Dec. 31 | Full Year |
|---|---|---|---|---|---|
| 2008 | .15 | .34 | .44 | .15 | 1.08 |
| 2009 | .01 | .23 | .43 | .14 | .81 |
| 2010 | .05 | .24 | .44 | .11 | .84 |
| 2011 | *.05* | *.25* | *.47* | *.13* | *.90* |
| 2012 | *.07* | *.28* | *.50* | *.15* | *1.00* |

| Cal-endar | QUARTERLY DIVIDENDS PAID B■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .15 | .15 | .15 | .15 | .60 |
| 2008 | .16 | .16 | .16 | .16 | .64 |
| 2009 | .165 | .165 | .165 | .165 | .66 |
| 2010 | .17 | .17 | .17 | .17 | .68 |
| 2011 | .173 | | | | |

**BUSINESS:** SJW Corporation engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 226,000 connections that serve a population of approximately one million people in the San Jose area and 8,700 connections that serve approximately 36,000 residents in a service area in the region between San Antonio and Austin, Texas. The company offers nonregulated water-related services, including water system operations, cash remittances, and maintenance contract services. SJW also owns and operates commercial real estate investments. Has 375 employees. Chairman: Charles J. Toeniskoetter. Inc.: CA. Address: 110 W. Taylor Street, San Jose, CA 95110. Tel.: (408) 279-7800. Int:www.sjwater.com.

**We welcome newcomer SJW Corp to *The Value Line Investment Survey* in this issue.** Although it dabbles in commercial property, the company, for all intents and purposes, is a water utility, engaging in the production, purchase, storage, purification, distribution, and sale of water. It offers nonregulated services via agreements with municipalities and other utilities, but the bulk of its business is regulated. Operations are centered around San Jose, California, where it provides more than 225,000 connections that serve population of roughly one million people. Services are not exclusive to the Golden State, however, with another 8,700 connections serving 36,000 residents in the state of Texas.

**The company's inaugural appearance is forgettable.** It posted earnings of $0.11 in the fourth quarter of 2010 (March-period results are due out next week), a few pennies below the prior year's tally, after stripping out gains we deem as nonrecurring in nature. Sales inched up modestly in the quarter, but the costs of doing business in this capital-intensive industry continued to take a toll.

**We are a little wary of the company's near-term prospects.** Operating costs are likely to remain on the rise, given the shape that many water systems appear to be in across the United States. That said, SJW, like many of its bedfellows, is not exactly flush with cash and will probably have to turn to outside financing to make the improvements. The costs associated with additional debt or share offerings, however, will be dilutive, likely keeping growth under wraps going forward. Note, however, that growth may look decent against depressed 2010 comparisons.

**We advise investors to take a pass on this issue.** SJW is ranked 4 (Below Average) for Timeliness and lacks 3- to 5-year appreciation potential, as well. Meanwhile, the balance sheet is highly leveraged, adding some skepticism about the sustainability of the stock's only saving grace at this time, its dividend. Although the steady stream of income is not likely to dry up completely, the financial constraints alluded to above could prompt the company to use the funds to make capital improvements instead.

*Andre J. Costanza* *April 22, 2011*

(A) Diluted earnings. Excludes nonrecurring losses : '03, $1.97; '04, $3.78; '05, $1.09; '06, $16.36; '08, $1.22; '10, 46¢. Next earnings report due April 28th. Quarterly egs. may not add due to rounding.
(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions.

| | |
|---|---|
| Company's Financial Strength | B+ |
| Stock's Price Stability | 70 |
| Price Growth Persistence | 80 |
| Earnings Predictability | 85 |

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# AQUA AMERICA NYSE-WTR

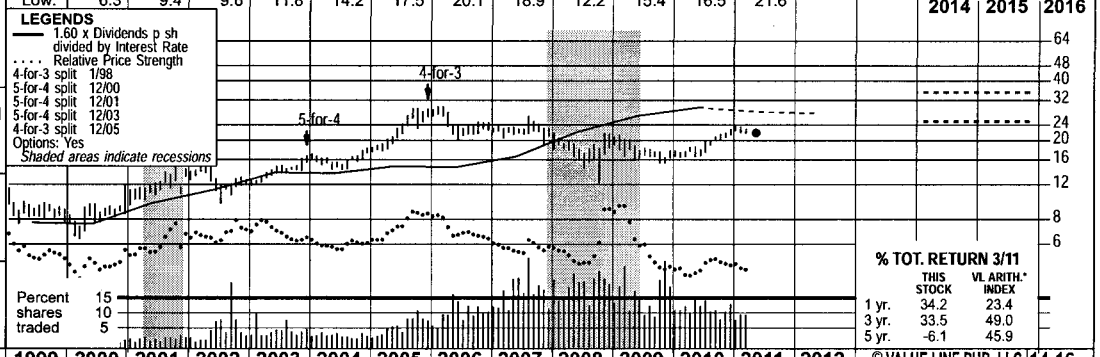
| RECENT PRICE | P/E RATIO | | RELATIVE P/E RATIO | DIV'D YLD | |
|---|---|---|---|---|---|
| 21.94 | 23.8 | (Trailing: 24.4 Median: 25.0) | 1.43 | 2.8% | VALUE LINE |

**TIMELINESS** 3 Lowered 1/21/11
**SAFETY** 3 Lowered 8/1/03
**TECHNICAL** 3 Raised 4/8/11
**BETA** .65 (1.00 = Market)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 12.0 | 14.8 | 15.0 | 16.8 | 18.5 | 29.2 | 29.8 | 26.6 | 22.0 | 21.5 | 23.0 | 23.8 | |
| Low: | 6.3 | 9.4 | 9.6 | 11.8 | 14.2 | 17.5 | 20.1 | 18.9 | 12.2 | 15.4 | 16.5 | 21.6 | |

**Target Price Range** 2014 | 2015 | 2016

**LEGENDS**
— 1.60 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
4-for-3 split 1/98
5-for-4 split 12/00
5-for-4 split 12/01
5-for-4 split 12/03
4-for-3 split 12/05
Options: Yes
*Shaded areas indicate recessions*




**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 35 | (+60%) | 15% |
| Low | 25 | (+15%) | 3% |

**Insider Decisions**

| | M | J | J | A | S | O | N | D | J |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Options | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 1 |
| to Sell | 0 | 0 | 3 | 0 | 2 | 1 | 1 | 1 | 0 |

**Institutional Decisions**

| | 2Q2010 | 3Q2010 | 4Q2010 |
|---|---|---|---|
| to Buy | 92 | 90 | 101 |
| to Sell | 119 | 101 | 94 |
| Hld's(000) | 60654 | 59791 | 55463 |

**% TOT. RETURN 3/11**

| | THIS STOCK | VL ARITH.* INDEX |
|---|---|---|
| 1 yr. | 34.2 | 23.4 |
| 3 yr. | 33.5 | 49.0 |
| 5 yr. | -6.1 | 45.9 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.84 | 1.86 | 2.02 | 2.09 | 2.41 | 2.46 | 2.70 | 2.85 | 2.97 | 3.48 | 3.85 | 4.03 | 4.52 | 4.63 | 4.91 | 5.26 | *5.60* | *5.90* | Revenues per sh | *6.80* |
| .47 | .50 | .56 | .61 | .72 | .76 | .86 | .94 | .96 | 1.09 | 1.21 | 1.26 | 1.37 | 1.42 | 1.61 | 1.78 | *1.85* | *1.95* | "Cash Flow" per sh | *2.35* |
| .29 | .30 | .34 | .40 | .42 | .47 | .51 | .54 | .57 | .64 | .71 | .70 | .71 | .73 | .77 | .90 | *.95* | *1.05* | Earnings per sh A | *1.35* |
| .22 | .23 | .24 | .26 | .27 | .28 | .30 | .32 | .35 | .37 | .40 | .44 | .48 | .51 | .55 | .59 | *.63* | *.67* | Div'd Decl'd per sh B■ | *.79* |
| .52 | .48 | .58 | .82 | .90 | 1.16 | 1.09 | 1.20 | 1.32 | 1.54 | 1.84 | 2.05 | 1.79 | 1.98 | 2.08 | 2.37 | *2.45* | *1.55* | Cap'l Spending per sh | *2.80* |
| 2.46 | 2.69 | 2.84 | 3.21 | 3.42 | 3.85 | 4.15 | 4.36 | 5.34 | 5.89 | 6.30 | 6.96 | 7.32 | 7.82 | 8.12 | 8.51 | *8.75* | *9.10* | Book Value per sh | *10.50* |
| 63.74 | 65.75 | 67.47 | 72.20 | 106.80 | 111.82 | 113.97 | 113.19 | 123.45 | 127.18 | 128.97 | 132.33 | 133.40 | 135.37 | 136.49 | 137.97 | *138.90* | *139.90* | Common Shs Outst'g C | *142.90* |
| 12.0 | 15.6 | 17.8 | 22.5 | 21.2 | 18.2 | 23.6 | 23.6 | 24.5 | 25.1 | 31.8 | 34.7 | 32.0 | 24.9 | 23.1 | 21.1 | *Bold figures are* | | Avg Ann'l P/E Ratio | *21.0* |
| .80 | .98 | 1.03 | 1.17 | 1.21 | 1.18 | 1.21 | 1.29 | 1.40 | 1.33 | 1.69 | 1.87 | 1.70 | 1.50 | 1.54 | 1.36 | *Value Line* | | Relative P/E Ratio | *1.40* |
| 6.2% | 4.9% | 3.9% | 2.9% | 3.0% | 3.3% | 2.5% | 2.5% | 2.5% | 2.3% | 1.8% | 1.8% | 2.1% | 2.8% | 3.1% | 3.1% | *estimates* | | Avg Ann'l Div'd Yield | *2.5%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $1560.4 mill. **Due in 5 Yrs** $316 mill.
**LT Debt** $1531.9 mill. **LT Interest** $70.6 mill.
(LT interest earned: 4.5x; total interest coverage: 4.5x) (57% of Cap'l)

**Pension Assets-12/10** $159.2 mill. **Oblig.** $234.9 mill.

**Pfd Stock** None
**Common Stock** 137,968,188 shares as of 2/11/11
**MARKET CAP: $3.0 billion (Mid Cap)**

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 307.3 | 322.0 | 367.2 | 442.0 | 496.8 | 533.5 | 602.5 | 627.0 | 670.5 | 726.1 | *775* | *825* | Revenues ($mill) | *975* |
| 58.5 | 62.7 | 67.3 | 80.0 | 91.2 | 92.0 | 95.0 | 97.9 | 104.4 | 124.0 | *130* | *145* | Net Profit ($mill) | *190* |
| 39.3% | 38.5% | 39.3% | 39.4% | 38.4% | 39.6% | 38.9% | 39.7% | 39.4% | 39.2% | *40.0%* | *40.0%* | Income Tax Rate | *40.0%* |
| -- | -- | -- | -- | -- | -- | -- | -- | 2.9% | 3.1% | *2.5%* | *2.5%* | AFUDC % to Net Profit | *1.5%* |
| 52.2% | 54.2% | 51.4% | 50.0% | 52.0% | 51.6% | 55.4% | 54.1% | 55.6% | 56.6% | *56.0%* | *56.0%* | Long-Term Debt Ratio | *54.0%* |
| 47.7% | 45.8% | 48.6% | 50.0% | 48.0% | 48.4% | 44.6% | 45.9% | 44.4% | 43.4% | *44.0%* | *44.0%* | Common Equity Ratio | *46.0%* |
| 990.4 | 1076.2 | 1355.7 | 1497.3 | 1690.4 | 1904.4 | 2191.4 | 2306.6 | 2495.5 | 2706.2 | *2790* | *2880* | Total Capital ($mill) | *3210* |
| 1368.1 | 1490.8 | 1824.3 | 2069.8 | 2280.0 | 2506.0 | 2792.8 | 2997.4 | 3227.3 | 3469.3 | *3640* | *3815* | Net Plant ($mill) | *4395* |
| 7.8% | 7.6% | 6.4% | 6.7% | 6.9% | 6.4% | 5.9% | 5.7% | 5.6% | 5.9% | *6.0%* | *6.5%* | Return on Total Cap'l | *7.5%* |
| 12.3% | 12.7% | 10.2% | 10.7% | 11.2% | 10.0% | 9.7% | 9.3% | 9.4% | 10.6% | *11.0%* | *11.5%* | Return on Shr. Equity | *13.0%* |
| 12.4% | 12.7% | 10.2% | 10.7% | 11.2% | 10.0% | 9.7% | 9.3% | 9.4% | 10.6% | *11.0%* | *11.5%* | Return on Com Equity | *13.0%* |
| 5.1% | 5.2% | 4.2% | 4.6% | 4.9% | 3.7% | 3.2% | 2.8% | 2.7% | 3.7% | *3.5%* | *4.0%* | Retained to Com Eq | *5.5%* |
| 59% | 59% | 59% | 57% | 56% | 63% | 67% | 70% | 72% | 65% | *67%* | *64%* | All Div'ds to Net Prof | *59%* |

| CURRENT POSITION ($MILL.) | 2008 | 2009 | 12/31/10 |
|---|---|---|---|
| Cash Assets | 14.9 | 21.9 | 5.9 |
| Receivables | 84.5 | 78.7 | 85.9 |
| Inventory (AvgCst) | 9.8 | 9.5 | 9.2 |
| Other | 11.8 | 11.5 | 44.4 |
| Current Assets | 121.0 | 121.6 | 145.4 |
| Accts Payable | 50.0 | 57.9 | 45.3 |
| Debt Due | 87.9 | 87.0 | 28.5 |
| Other | 55.3 | 56.1 | 149.9 |
| Current Liab. | 193.2 | 201.0 | 223.7 |
| Fix. Chg. Cov. | 329% | 346% | 290% |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 8.0% | 7.5% | *6.5%* |
| "Cash Flow" | 8.5% | 8.0% | *8.0%* |
| Earnings | 6.5% | 4.5% | *10.0%* |
| Dividends | 7.5% | 8.0% | *6.0%* |
| Book Value | 9.0% | 7.0% | *5.0%* |

| Cal-endar | QUARTERLY REVENUES ($ mill.) Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 139.3 | 151.0 | 177.1 | 159.6 | 627.0 |
| 2009 | 154.5 | 167.3 | 180.8 | 167.9 | 670.5 |
| 2010 | 160.5 | 178.4 | 207.8 | 179.3 | 726.0 |
| 2011 | *180* | *185* | *215* | *195* | *775* |
| 2012 | *195* | *200* | *230* | *200* | *825* |

| Cal-endar | EARNINGS PER SHARE A Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | .11 | .17 | .26 | .19 | .73 |
| 2009 | .14 | .19 | .25 | .20 | .77 |
| 2010 | .16 | .22 | .32 | .20 | .90 |
| 2011 | *.16* | *.22* | *.34* | *.23* | *.95* |
| 2012 | *.18* | *.24* | *.36* | *.27* | *1.05* |

| Cal-endar | QUARTERLY DIVIDENDS PAID B■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .115 | .115 | .125 | .125 | .48 |
| 2008 | .125 | .125 | .125 | .135 | .51 |
| 2009 | .135 | .135 | .135 | .145 | .55 |
| 2010 | .145 | .145 | .145 | .155 | .59 |
| 2011 | .155 | | | | |

**BUSINESS:** Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately three million residents in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Florida, Indiana, and five other states. Divested three of four non-water businesses in '91; telemarketing group in '93; and others. Acquired AquaSource, 7/03; Consumers Water, 4/99; and others. Water supply revenues '10: residential, 59.4%; commercial, 14.5%; industrial & other, 26.0%. Officers and directors own 2.0% of the common stock (4/11 Proxy). Chairman & Chief Executive Officer: Nicholas DeBenedictis. Incorporated: Pennsylvania. Address: 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010. Telephone: 610-525-1400. Internet: www.aquaamerica.com.

**Aqua America is slated to improve steadily in 2011.** Earnings growth is likely to be driven by purchases, as well as future favorable rate rulings.

**Acquisitions remain the backbone of growth.** With its strong balance sheet, Aqua America is poised to continue growth via purchases this year. Though no concrete details are known at this time, we do anticipate seeing a string of transactions, similar to the previous year.

**Rate rulings should provide an additional boost to the bottom line.** The company has implemented a rate recovery program, with most of its rate cases likely to receive favorable rulings. It already has several major cases on the horizon, though there have not been any filings. States that the company plans to file in include Pennsylvania, New Jersey, Ohio, Illinois, and Texas. In the best-case scenario, the increase in revenues should boost the bottom lines from 2012 onward.

**The Marcellus Shale project provides many growth opportunities.** The company has already implemented a new program of "water stations" to fill the trucks that service the drillers in Marcellus Shale. As the drilling requires significant water use, we expect drilling-related water consumption to increase in the future, adding to the revenue stream. Furthermore as the Marcellus Shale is set to provide impetus to many states that the company serves, we anticipate organic growth to increase over the next few years.

**Long-term prospects look bright for Aqua America.** It looks ever likely that the company will benefit both from acquisition-driven growth and organic growth. Finally, Aqua America's diversification into other sectors continues. It is looking at three to four more solar operations this year, and is quite likely to ramp up production from 2012 onward, as these projects are turning out to be quite profitable in the near and long term. The company is also cutting down on costs, which should aid in boosting the bottom line over the next few years.

**Income investors should find this issue of interest.** This equity's dividend yield is well above the industry average. Furthermore, the company has a history of steady dividend increases.

*Sahana Zutshi* *April 22, 2011*

(A) Diluted egs. Excl. nonrec. gains (losses): '99, (11¢); '00, 2¢; '01, 2¢; '02, 5¢; '03, 4¢. Excl. gain from disc. operations: '96, 2¢. Earnings may not add due to rounding. Next earnings report due mid-May.
(B) Dividends historically paid in early March, June, Sept. & Dec. ■ Div'd. reinvestment plan available (5% discount).
(C) In millions, adjusted for stock splits.

| | |
|---|---|
| Company's Financial Strength | B+ |
| Stock's Price Stability | 100 |
| Price Growth Persistence | 70 |
| Earnings Predictability | 100 |

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# ATTACHMENT B

**Stocks in the Natural Gas Utility Industry generally posted a good performance over the past few months. However, this run was less impressive when compared to the stock market rally of late. Consequently, this group remains ranked in the bottom half of our Industry spectrum.**

**Regardless, the companies herein have been operating amid tough market conditions in recent months. The weakness in the housing market continues to weigh on results. These utilities continue to work to offset these pressure via numerous business strategies. However, near-term prospects will likely continue to be uninspiring until the economic recovery is further along.**

### Macroeconomic Climate

There has been some good news on the economic front in recent months. Some positive economic reports suggest that the global economy is posting slow growth. However, there are still some areas of concern. Notably, the weakness in the housing market and tight credit environment continue to weigh on this sector. Thus, we expect usage to continue to be impacted by these economic factors for the time being.

### Regulation

Rate cases are a key theme for companies in this industry. These utilities are regulated by state commissions that determine the return on equity these companies can achieve. As a result, any pending rate cases remain carefully watched by investors. A favorable ruling can lead to an jump in a stock's price, while an unfavorable ruling can have the opposite effect. The current rate environment is fairly quiet. However, there are a few notable cases pending. For example, *WGL Holdings* and *Southwest Gas* both have cases being reviewed by regulatory commissions. All told, we suggest investors pay close attention to the rate environment when evaluating these stocks.

### Nonregulated Activities

Many of the members here continue to invest in nonregulated businesses. These often provide opportunties for utilities to diversify their operations and improve profitability. The fact that these businesses can provide upside to share net is noteworthy, since the return on equity is set by the regulatory state commissions (usually in the 10%-12% range) on the regulated operations.

Composite Statistics: Natural Gas Utility

| 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | 14-16 |
|---|---|---|---|---|---|---|---|
| 38528 | 44207 | 34909 | *42000* | *44500* | *47500* | Revenues ($mill) | *54250* |
| 1562.4 | 1694.2 | 1677.6 | *1650* | *1725* | *1825* | Net Profit ($mill) | *2175* |
| 33.9% | 35.7% | 33.8% | *36.0%* | *36.0%* | *36.0%* | Income Tax Rate | *36.0%* |
| 4.1% | 3.8% | 4.8% | *3.9%* | *3.9%* | *3.8%* | Net Profit Margin | *4.0%* |
| 50.4% | 50.6% | 49.9% | *52.0%* | *52.0%* | *51.0%* | Long-Term Debt Ratio | *54.0%* |
| 49.5% | 49.4% | 50.1% | *48.0%* | *48.0%* | *49.0%* | Common Equity Ratio | *46.0%* |
| 32263 | 32729 | 33974 | *34750* | *36250* | *37750* | Total Capital ($mill) | *43000* |
| 33936 | 35342 | 37292 | *38500* | *40250* | *42250* | Net Plant ($mill) | *50500* |
| 6.5% | 6.8% | 6.5% | *6.5%* | *6.5%* | *5.0%* | Return on Total Cap'l | *5.0%* |
| 9.8% | 10.5% | 10.0% | *10.5%* | *10.0%* | *10.0%* | Return on Shr. Equity | *10.0%* |
| 9.8% | 10.5% | 10.0% | *10.5%* | *10.0%* | *10.0%* | Return on Com Equity | *10.0%* |
| 3.7% | 4.3% | 3.8% | *4.5%* | *4.0%* | *3.5%* | Retained to Com Eq | *4.0%* |
| 62% | 59% | 61% | *63%* | *61%* | *60%* | All Div'ds to Net Prof | *59%* |
| 16.6 | 13.9 | 12.8 | | *Bold figures are Value Line estimates* | | Avg Ann'l P/E Ratio | *13.0* |
| .88 | .83 | .88 | | | | Relative P/E Ratio | *.85* |
| 3.7% | 4.2% | 4.1% | | | | Avg Ann'l Div'd Yield | *4.6%* |
| 336% | 358% | 381% | *375%* | *375%* | *375%* | Fixed Charge Coverage | *400%* |

**INDUSTRY TIMELINESS: 68 (of 97)**

Looking ahead, nonregulated ventures will likely continue to become a more important theme for this sector over the coming years, given their potential to generate higher profits.

### Recent Developments

There has been some news of consolidation in this industry since our last review. *Nicor* made headlines recently after it agreed to be purchased by *AGL Resources* for $2.4 billion. The merger would create one of the largest natural gas distributors in the United States. The deal is expected to close in the second half of 2011. We would not be surprised to see other acquisitions in this sector in the not-so-distant future, given the improving economic climate. Another notable development is the increasing interest in "green" initiatives by natural gas utilities. State governments have increasingly been offering energy-efficiency programs in an effort to help these companies adapt to industry trends and to promote conservation. Consequently, numerous companies have been investing in "green" energy. For example, *New Jersey Resources* has been pushing forward with its solar initiative.

### Weather

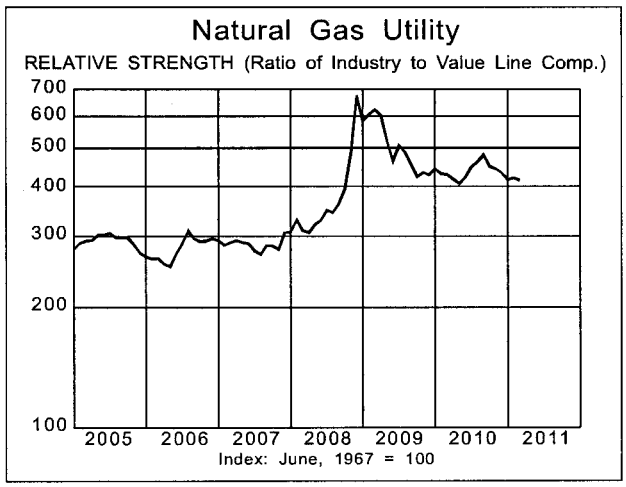
Weather remains another important factor to consider when looking at this group. Unseasonably warm or cold weather can have a notable impact on results as well as on natural gas prices. A particularly cold winter this year has helped results for many of the players in this group. However, weak natural gas prices widely offset the majority of the gains in usage.

### Conclusion

Momentum investors can probably find better options in a different industry group. Indeed, this sector's near-term prospects do not stand out. Total return potential 3- to 5-year hence is also widely unattractive. Thus, we suggest patient investors look elsewhere.

The main appeal of this sector is its above-average dividend yield. The average yield is approximately 3.8%, which is about twice the *Value Line* median. Consequently, income-oriented investors may find some of the stocks in this group of interest. *NiSource* and *AGL Resources* have particularly attractive dividend yields.

*Richard Gallagher*

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# AGL RESOURCES NYSE-AGL

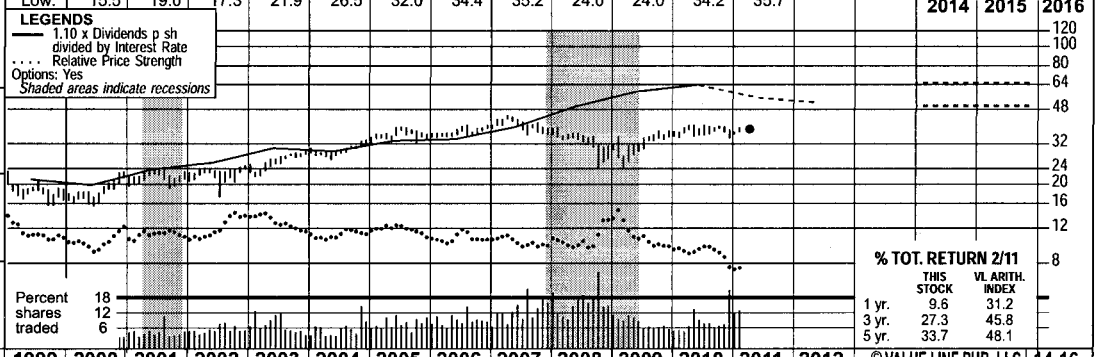
RECENT PRICE 38.14 | P/E RATIO 12.9 (Trailing: 12.7 Median: 13.0) | RELATIVE P/E RATIO 0.79 | DIV'D YLD 4.7% | VALUE LINE

**TIMELINESS** 3 Raised 3/11/11
**SAFETY** 2 New 7/27/90
**TECHNICAL** 4 Lowered 3/11/11
**BETA** .75 (1.00 = Market)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 23.2 | 24.5 | 25.0 | 29.3 | 33.7 | 39.3 | 40.1 | 44.7 | 39.1 | 37.5 | 40.1 | 38.9 |
| Low: | 15.5 | 19.0 | 17.3 | 21.9 | 26.5 | 32.0 | 34.4 | 35.2 | 24.0 | 24.0 | 34.2 | 35.7 |

**Target Price Range** 2014 | 2015 | 2016

LEGENDS
— 1.10 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded areas indicate recessions



**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 65 | (+70%) | 18% |
| Low | 50 | (+30%) | 11% |

**Insider Decisions**

| | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Options | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| to Sell | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 |

**Institutional Decisions**

| | 1Q2010 | 2Q2010 | 3Q2010 |
|---|---|---|---|
| to Buy | 104 | 110 | 109 |
| to Sell | 103 | 116 | 96 |
| Hld's(000) | 46225 | 46214 | 46899 |

Percent shares traded 18 12 6

**% TOT. RETURN 2/11**

| | THIS STOCK | VL ARITH. INDEX |
|---|---|---|
| 1 yr. | 9.6 | 31.2 |
| 3 yr. | 27.3 | 45.8 |
| 5 yr. | 33.7 | 48.1 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19.32 | 21.91 | 22.75 | 23.36 | 18.71 | 11.25 | 19.04 | 15.32 | 15.25 | 23.89 | 34.98 | 33.73 | 32.64 | 36.41 | 29.88 | 30.42 | *33.25* | *34.45* | Revenues per sh A | *37.95* |
| 2.33 | 2.49 | 2.42 | 2.65 | 2.29 | 2.86 | 3.31 | 3.39 | 3.47 | 3.29 | 4.20 | 4.50 | 4.65 | 4.68 | 4.90 | 5.05 | *5.20* | *5.40* | "Cash Flow" per sh | *5.90* |
| 1.33 | 1.37 | 1.37 | 1.41 | .91 | 1.29 | 1.50 | 1.82 | 2.08 | 2.28 | 2.48 | 2.72 | 2.72 | 2.71 | 2.88 | 3.00 | *3.15* | *3.30* | Earnings per sh A B | *3.75* |
| 1.04 | 1.06 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.11 | 1.15 | 1.30 | 1.48 | 1.64 | 1.68 | 1.72 | 1.76 | *1.80* | *1.84* | Div'ds Decl'd per sh C■ | *1.96* |
| 2.17 | 2.37 | 2.59 | 2.05 | 2.51 | 2.92 | 2.83 | 3.30 | 2.46 | 3.44 | 3.44 | 3.26 | 3.39 | 4.84 | 6.14 | 6.54 | *2.55* | *1.30* | Cap'l Spending per sh | *5.05* |
| 10.12 | 10.56 | 10.99 | 11.42 | 11.59 | 11.50 | 12.19 | 12.52 | 14.66 | 18.06 | 19.29 | 20.71 | 21.74 | 21.48 | 22.95 | 23.24 | *24.70* | *25.25* | Book Value per sh D | *30.70* |
| 55.02 | 55.70 | 56.60 | 57.30 | 57.10 | 54.00 | 55.10 | 56.70 | 64.50 | 76.70 | 77.70 | 77.70 | 76.40 | 76.90 | 77.54 | 78.00 | *78.20* | *78.40* | Common Shs Outst'g E | *79.00* |
| 12.6 | 13.8 | 14.7 | 13.9 | 21.4 | 13.6 | 14.6 | 12.5 | 12.5 | 13.1 | 14.3 | 13.5 | 14.7 | 12.3 | 11.2 | 12.9 | *Bold figures are* | | Avg Ann'l P/E Ratio | *15.0* |
| .84 | .86 | .85 | .72 | 1.22 | .88 | .75 | .68 | .71 | .69 | .76 | .73 | .78 | .74 | .75 | .79 | *Value Line* | | Relative P/E Ratio | *1.00* |
| 6.2% | 5.6% | 5.4% | 5.5% | 5.5% | 6.2% | 4.9% | 4.7% | 4.3% | 3.9% | 3.7% | 4.0% | 4.1% | 5.0% | 5.4% | 4.7% | *estimates* | | Avg Ann'l Div'd Yield | *4.2%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $2705.0 mill. **Due in 5 Yrs** $732.0 mill.
**LT Debt** $1673.0 mill. **LT Interest** $109.0 mill.
(Total interest coverage: 6.5x)

**Leases, Uncapitalized** Annual rentals $95.0 mill.
**Pension Assets-12/10** $344.0 mill. **Oblig.** $531.0 mill.

**Pfd Stock** None

**Common Stock** 77,999,557 shs. as of 1/31/11

**MARKET CAP: $3.0 billion (Mid Cap)**

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1049.3 | 868.9 | 983.7 | 1832.0 | 2718.0 | 2621.0 | 2494.0 | 2800.0 | 2317.0 | 2373.0 | *2600* | *2700* | Revenues ($mill) A | *3000* |
| 82.3 | 103.0 | 132.4 | 153.0 | 193.0 | 212.0 | 211.0 | 207.6 | 222.0 | 234.0 | *245* | *260* | Net Profit ($mill) | *300* |
| 40.7% | 36.0% | 35.9% | 37.0% | 37.7% | 37.8% | 37.6% | 40.5% | 35.2% | 35.9% | *35.0%* | *35.0%* | Income Tax Rate | *35.0%* |
| 7.8% | 11.9% | 13.5% | 8.4% | 7.1% | 8.1% | 8.5% | 7.4% | 9.6% | 9.9% | *9.5%* | *9.5%* | Net Profit Margin | *10.0%* |
| 61.3% | 58.3% | 50.3% | 54.0% | 51.9% | 50.2% | 50.2% | 50.3% | 52.6% | 48.0% | *45.0%* | *44.0%* | Long-Term Debt Ratio | *35.0%* |
| 38.7% | 41.7% | 49.7% | 46.0% | 48.1% | 49.8% | 49.8% | 49.7% | 47.4% | 52.0% | *55.0%* | *56.0%* | Common Equity Ratio | *65.0%* |
| 1736.3 | 1704.3 | 1901.4 | 3008.0 | 3114.0 | 3231.0 | 3335.0 | 3327.0 | 3754.0 | 3486.0 | *3515* | *3535* | Total Capital ($mill) | *3730* |
| 2058.9 | 2194.2 | 2352.4 | 3178.0 | 3271.0 | 3436.0 | 3566.0 | 3816.0 | 4146.0 | 4405.0 | *4505* | *4555* | Net Plant ($mill) | *5005* |
| 6.5% | 8.1% | 8.9% | 6.3% | 7.9% | 8.0% | 7.7% | 7.4% | 6.9% | 7.6% | *7.0%* | *7.5%* | Return on Total Cap'l | *8.0%* |
| 12.3% | 14.5% | 14.0% | 11.0% | 12.9% | 13.2% | 12.7% | 12.6% | 12.5% | 12.9% | *12.5%* | *12.5%* | Return on Shr. Equity | *12.5%* |
| 12.3% | 14.5% | 14.0% | 11.0% | 12.9% | 13.2% | 12.7% | 12.6% | 12.5% | 12.9% | *12.5%* | *12.5%* | Return on Com Equity | *12.5%* |
| 4.2% | 7.0% | 6.6% | 5.6% | 6.2% | 6.3% | 5.3% | 5.1% | 5.3% | 5.6% | *6.5%* | *5.5%* | Retained to Com Eq | *6.0%* |
| 65% | 52% | 53% | 49% | 52% | 52% | 58% | 60% | 57% | 57% | *55%* | *56%* | All Div'ds to Net Prof | *52%* |

| CURRENT POSITION ($MILL.) | 2008 | 2009 | 12/31/10 |
|---|---|---|---|
| Cash Assets | 16 | 26 | 24 |
| Other | 2026 | 1974 | 2138 |
| Current Assets | 2042 | 2000 | 2162 |
| Accts Payable | 202 | 237 | 184 |
| Debt Due | 866 | 602 | 1032 |
| Other | 915 | 933 | 1212 |
| Current Liab. | 1983 | 1772 | 2428 |
| Fix. Chg. Cov. | 416% | 472% | 475% |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 6.0% | 5.5% | *3.0%* |
| "Cash Flow" | 6.5% | 6.0% | *3.0%* |
| Earnings | 9.0% | 4.5% | *4.5%* |
| Dividends | 5.0% | 7.5% | *2.0%* |
| Book Value | 7.0% | 5.5% | *5.5%* |

| Cal-endar | QUARTERLY REVENUES ($ mill.) Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 1012 | 444 | 539 | 805 | 2800 |
| 2009 | 995 | 377 | 307 | 638 | 2317 |
| 2010 | 1003 | 359 | 346 | 665 | 2373 |
| 2011 | *1100* | *365* | *360* | *775* | *2600* |
| 2012 | *1200* | *390* | *380* | *730* | *2700* |

| Cal-endar | EARNINGS PER SHARE B Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 1.16 | .30 | .28 | .97 | 2.71 |
| 2009 | 1.55 | .26 | .16 | .91 | 2.88 |
| 2010 | 1.73 | .17 | .29 | .81 | 3.00 |
| 2011 | *1.50* | *.35* | *.30* | *1.00* | *3.15* |
| 2012 | *1.60* | *.40* | *.45* | *.85* | *3.30* |

| Cal-endar | QUARTERLY DIVIDENDS PAID C■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .41 | .41 | .41 | .41 | 1.64 |
| 2008 | .42 | .42 | .42 | .42 | 1.68 |
| 2009 | .43 | .43 | .43 | .43 | 1.72 |
| 2010 | .44 | .44 | .44 | .44 | 1.76 |
| 2011 | .45 | | | | |

**BUSINESS:** AGL Resources Inc. is a public utility holding company. Its distribution subsidiaries include Atlanta Gas Light, Chattanooga Gas, Elizabethtown Gas and Virginia Natural Gas. The utilities have more than 2.3 million customers in Georgia, Virginia, Tennessee, New Jersey, Florida, and Maryland. Engaged in nonregulated natural gas marketing and other allied services. Deregulated subsidiaries: Georgia Natural Gas markets natural gas at retail. Sold Utilipro, 3/01. Acquired Compass Energy Services, 10/07. Franklin Resources owns 5.1% of common stock; off./dir., less than 1.0% (3/10 Proxy). Pres. & CEO: John W. Somerhalder II. Inc.: GA. Addr.: Ten Peachtree Place N.E., Atlanta, GA 30309. Telephone: 404-584-4000. Internet: www.aglresources.com.

**AGL Resources should perform well in 2011.** The company is set to benefit from several factors this year. These include rate increases and the startup of the Golden Triangle project (discussed below).

**Rate cases and expansion projects are likely to drive earnings in 2011 and beyond.** The Golden Triangle project, which came partially on line in 2010, is poised to add considerably to the top line over the next few years as it materially increases the company's storage capacity. The expansion should aid AGL Resources by growing its customer base, as well. The company has also filed several rate increase cases, the most recent one concerning Virginia Natural Gas. Given its favorable rate case history, we do not foresee any problems at this time. The rate rises are likely to bolster the bottom line out to the 2014-2016 time frame.

**Mergers should play a key part in growth over the next few years, as well.** 2010 was one of the most active years for consolidations in the utility industry. We expect this trend to accelerate in 2011, as many companies appear to be good acquisitin targets. AGL Resources has already become a forerunner in this segment, with the purchase of Nicor, set to be finalized within the next few months. Given the weak operating environment, and the fact that acquisitions are a quick way to increase market share, we expect AGL take advantage of further opportunities over the next few years.

**The company is set to do well over the long term.** One concern is the fact that production is at unprecedented levels, a result of the discovery of several shale gas reserves. The high storage levels, resulting in lower prices, are set to put downward pressure on the profitability of the storage and pipeline segments. But, the continued economic recovery, increased customer demand, and stringent expense control measures should ensure that the company will successfully navigate these obstacles.

**Investors should take a look at this neutrally ranked issue.** The dividend yield is above the industry average at this time, and we believe that the payout will be increased in the years ahead. AGL Resources appears to be a good pick for the long term.

*Sahana Zutshi* *March 11, 2011*

(A) Fiscal year ends December 31st. Ended September 30th prior to 2002.
(B) Diluted earnings per share. Excl. nonrecurring gains (losses): '95, ($0.83); '99, $0.39; '00, $0.13; '01, $0.13; '03, ($0.07); '08, $0.13. Next earnings report due late April.
(C) Dividends historically paid early March, June, Sept., and Dec. ■ Div'd reinvest. plan available. (D) Includes intangibles. In 2010: $418 million, $5.35/share.
(E) In millions.

| | |
|---|---|
| Company's Financial Strength | B++ |
| Stock's Price Stability | 100 |
| Price Growth Persistence | 75 |
| Earnings Predictability | 95 |

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# ATMOS ENERGY CORP. NYSE-ATO

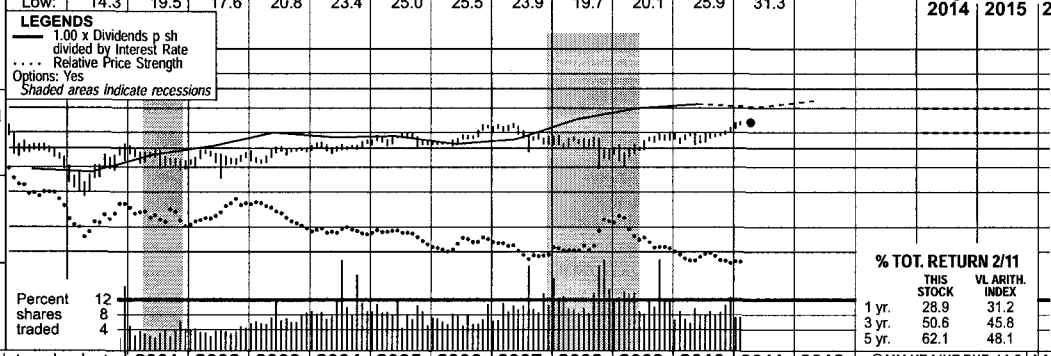
| RECENT PRICE | P/E RATIO | | RELATIVE P/E RATIO | DIV'D YLD | |
|---|---|---|---|---|---|
| 33.86 | 14.7 | (Trailing: 17.2) (Median: 14.0) | 0.90 | 4.0% | VALUE LINE |

**TIMELINESS** 3 Raised 2/25/11
**SAFETY** 2 Raised 12/16/05
**TECHNICAL** 3 Lowered 12/10/10
**BETA** .65 (1.00 = Market)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 26.3 | 25.8 | 24.5 | 25.5 | 27.6 | 30.0 | 33.1 | 33.5 | 29.3 | 30.3 | 32.0 | 34.3 |
| Low: | 14.3 | 19.5 | 17.6 | 20.8 | 23.4 | 25.0 | 25.5 | 23.9 | 19.7 | 20.1 | 25.9 | 31.3 |

**Target Price Range** 2014 | 2015 | 2016

**LEGENDS**
— 1.00 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
*Shaded areas indicate recessions*



**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 40 | (+20%) | 8% |
| Low | 30 | (-10%) | 1% |

**Insider Decisions**

| | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Options | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| to Sell | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 |

**Institutional Decisions**

| | 1Q2010 | 2Q2010 | 3Q2010 |
|---|---|---|---|
| to Buy | 115 | 107 | 90 |
| to Sell | 95 | 100 | 106 |
| Hld's(000) | 51556 | 52963 | 50893 |

Percent shares traded 12 8 4

**% TOT. RETURN 2/11**

| | THIS STOCK | VL ARITH. INDEX |
|---|---|---|
| 1 yr. | 28.9 | 31.2 |
| 3 yr. | 50.6 | 45.8 |
| 5 yr. | 62.1 | 48.1 |

Atmos Energy's history dates back to 1906 in the Texas Panhandle. Over the years, through various mergers, it became part of Pioneer Corporation, and, in 1981, Pioneer named its gas distribution division Energas. In 1983, Pioneer organized Energas as a separate subsidiary and distributed the outstanding shares of Energas to Pioneer shareholders. Energas changed its name to Atmos in 1988. Atmos acquired Trans Louisiana Gas in 1986, Western Kentucky Gas Utility in 1987, Greeley Gas in 1993, United Cities Gas in 1997, and others.

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 35.36 | 22.82 | 54.39 | 46.50 | 61.75 | 75.27 | 66.03 | 79.52 | 53.69 | 53.12 | *52.95* | *54.15* | Revenues per sh A | *71.45* |
| 3.03 | 3.39 | 3.23 | 2.91 | 3.90 | 4.26 | 4.14 | 4.19 | 4.29 | 4.64 | *4.85* | *5.10* | "Cash Flow" per sh | *5.55* |
| 1.47 | 1.45 | 1.71 | 1.58 | 1.72 | 2.00 | 1.94 | 2.00 | 1.97 | 2.16 | *2.30* | *2.40* | Earnings per sh A B | *2.70* |
| 1.16 | 1.18 | 1.20 | 1.22 | 1.24 | 1.26 | 1.28 | 1.30 | 1.32 | 1.34 | *1.36* | *1.38* | Div'ds Decl'd per sh C■ | *1.45* |
| 2.77 | 3.17 | 3.10 | 3.03 | 4.14 | 5.20 | 4.39 | 5.20 | 5.51 | 6.02 | *6.45* | *6.75* | Cap'l Spending per sh | *7.65* |
| 14.31 | 13.75 | 16.66 | 18.05 | 19.90 | 20.16 | 22.01 | 22.60 | 23.52 | 24.16 | *26.10* | *27.50* | Book Value per sh | *30.10* |
| 40.79 | 41.68 | 51.48 | 62.80 | 80.54 | 81.74 | 89.33 | 90.81 | 92.55 | 90.16 | *91.00* | *92.00* | Common Shs Outst'g D | *105.00* |
| 15.6 | 15.2 | 13.4 | 15.9 | 16.1 | 13.5 | 15.9 | 13.6 | 12.5 | 13.2 | *Bold figures are* | | Avg Ann'l P/E Ratio | *13.0* |
| .80 | .83 | .76 | .84 | .86 | .73 | .84 | .82 | .83 | .84 | *Value Line* | | Relative P/E Ratio | *.85* |
| 5.1% | 5.4% | 5.2% | 4.9% | 4.5% | 4.7% | 4.2% | 4.8% | 5.3% | 4.7% | *estimates* | | Avg Ann'l Div'd Yield | *4.1%* |
| 1442.3 | 950.8 | 2799.9 | 2920.0 | 4973.3 | 6152.4 | 5898.4 | 7221.3 | 4969.1 | 4789.7 | *4820* | *4980* | Revenues ($mill) A | *7500* |
| 56.1 | 59.7 | 79.5 | 86.2 | 135.8 | 162.3 | 170.5 | 180.3 | 179.7 | 201.2 | *210* | *220* | Net Profit ($mill) | *285* |
| 37.3% | 37.1% | 37.1% | 37.4% | 37.7% | 37.6% | 35.8% | 38.4% | 34.4% | 38.5% | *38.5%* | *38.5%* | Income Tax Rate | *40.5%* |
| 3.9% | 6.3% | 2.8% | 3.0% | 2.7% | 2.6% | 2.9% | 2.5% | 3.6% | 4.2% | *4.4%* | *4.4%* | Net Profit Margin | *3.8%* |
| 54.3% | 53.9% | 50.2% | 43.2% | 57.7% | 57.0% | 52.0% | 50.8% | 49.9% | 45.4% | *45.0%* | *45.0%* | Long-Term Debt Ratio | *49.0%* |
| 45.7% | 46.1% | 49.8% | 56.8% | 42.3% | 43.0% | 48.0% | 49.2% | 50.1% | 54.6% | *55.0%* | *55.0%* | Common Equity Ratio | *51.0%* |
| 1276.3 | 1243.7 | 1721.4 | 1994.8 | 3785.5 | 3828.5 | 4092.1 | 4172.3 | 4346.2 | 3987.9 | *4315* | *4600* | Total Capital ($mill) | *6200* |
| 1335.4 | 1300.3 | 1516.0 | 1722.5 | 3374.4 | 3629.2 | 3836.8 | 4136.9 | 4439.1 | 4793.1 | *5100* | *5400* | Net Plant ($mill) | *6400* |
| 5.9% | 6.8% | 6.2% | 5.8% | 5.3% | 6.1% | 5.9% | 5.9% | 5.9% | 6.9% | *6.0%* | *6.0%* | Return on Total Cap'l | *6.0%* |
| 9.6% | 10.4% | 9.3% | 7.6% | 8.5% | 9.8% | 8.7% | 8.8% | 8.3% | 9.2% | *9.0%* | *8.5%* | Return on Shr. Equity | *9.0%* |
| 9.6% | 10.4% | 9.3% | 7.6% | 8.5% | 9.8% | 8.7% | 8.8% | 8.3% | 9.2% | *9.0%* | *8.5%* | Return on Com Equity | *9.0%* |
| 2.1% | 1.9% | 2.8% | 1.7% | 2.3% | 3.6% | 3.0% | 3.1% | 2.7% | 3.5% | *3.5%* | *3.5%* | Retained to Com Eq | *4.0%* |
| 79% | 82% | 70% | 77% | 73% | 63% | 65% | 65% | 68% | 62% | *59%* | *58%* | All Div'ds to Net Prof | *53%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $2407.7 mill. **Due in 5 Yrs** $1240.0 mill.
**LT Debt** $1807.3 mill. **LT Interest** $110.0 mill.
(LT interest earned: 3.2x; total interest coverage: 3.1x)
**Leases, Uncapitalized** Annual rentals $18.2 mill.
**Pfd Stock** None
**Pension Assets-9/10** $301.7 mill. **Oblig.** $407.5 mill.
**Common Stock** 90,648,911 shs. as of 2/3/11
**MARKET CAP: $3.1 billion (Mid Cap)**

| CURRENT POSITION ($MILL.) | 2009 | 2010 | 12/31/10 |
|---|---|---|---|
| Cash Assets | 111.2 | 132.0 | 129.9 |
| Other | 717.7 | 743.2 | 1133.4 |
| Current Assets | 828.9 | 875.2 | 1263.3 |
| Accts Payable | 207.4 | 266.2 | 510.1 |
| Debt Due | 72.7 | 486.2 | 600.4 |
| Other | 457.3 | 413.7 | 349.9 |
| Current Liab. | 737.4 | 1166.1 | 1460.4 |
| Fix. Chg. Cov. | 416% | 440% | 435% |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 9.5% | 3.0% | 3.0% |
| "Cash Flow" | 4.0% | 5.5% | 4.0% |
| Earnings | 5.0% | 4.0% | 5.0% |
| Dividends | 2.0% | 1.5% | 2.0% |
| Book Value | 6.5% | 5.0% | 4.5% |

| Fiscal Year Ends | QUARTERLY REVENUES ($ mill.) A Dec.31 | Mar.31 | Jun.30 | Sep.30 | Full Fiscal Year |
|---|---|---|---|---|---|
| 2008 | 1657.5 | 2484.0 | 1639.1 | 1440.7 | 7221.3 |
| 2009 | 1716.3 | 1821.4 | 780.8 | 650.6 | 4969.1 |
| 2010 | 1292.9 | 1940.3 | 770.2 | 786.3 | 4789.7 |
| 2011 | 1157.0 | *2025* | *820* | *818* | *4820* |
| 2012 | *1110* | *1970* | *1050* | *850* | *4980* |

| Fiscal Year Ends | EARNINGS PER SHARE A B E Dec.31 | Mar.31 | Jun.30 | Sep.30 | Full Fiscal Year |
|---|---|---|---|---|---|
| 2008 | .82 | 1.24 | d.07 | .02 | 2.00 |
| 2009 | .83 | 1.29 | .02 | d.17 | 1.97 |
| 2010 | 1.00 | 1.17 | d.03 | .02 | 2.16 |
| 2011 | .81 | *1.37* | *.09* | *.03* | *2.30* |
| 2012 | *.97* | *1.35* | *.06* | *.02* | *2.40* |

| Cal-endar | QUARTERLY DIVIDENDS PAID C■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .32 | .32 | .32 | .325 | 1.29 |
| 2008 | .325 | .325 | .325 | .33 | 1.31 |
| 2009 | .33 | .33 | .33 | .335 | 1.33 |
| 2010 | .335 | .335 | .335 | .34 | 1.35 |
| 2011 | .34 | | | | |

**BUSINESS:** Atmos Energy Corporation is engaged primarily in the distribution and sale of natural gas to over three million customers via six regulated natural gas utility operations: Louisiana Division, West Texas Division, Mid-Tex Division, Mississippi Division, Colorado-Kansas Division, and Kentucky/Mid-States Division. Combined 2010 gas volumes: 323 MMcf. Breakdown: 59%, residential; 32%, commercial; 6%, industrial; and 3% other. 2010 depreciation rate 3.3%. Has around 4,915 employees. Officers and directors own 1.4% of common stock (12/10 Proxy). President and Chief Executive Officer: Kim R. Cocklin. Inc.: Texas. Address: Three Lincoln Centre, Suite 1800, 5430 LBJ Freeway, Dallas, Texas 75240. Telephone: 972-934-9227. Internet: www.atmosenergy.com.

**Atmos Energy's share net plunged nearly 20% in the opening quarter of fiscal 2011, versus the year-earlier tally.** The shortfall was attributable largely to the nonregulated segment, which experienced a modest unrealized net gain, relative to a much larger $0.29 gain the previous year.

**But there were some positives.** The gas utility posted improved earnings, as it benefited from higher rates in such states as Missouri, Kansas, Kentucky, and Texas. But these results were held back a bit by a 10% drop in throughput, reflecting warmer weather. Meanwhile, the regulated transmission and storage unit enjoyed an increase in fixed-fee services and revenues from filings under the Texas Gas Reliability Infrastructure Program. Lower per-unit transportation margins were somewhat of an offset here.

**Consolidated share net stands to advance almost 7%, to $2.30, for the full fiscal year.** This is based partly on our assumption that the nonregulated segment bounces back. Too, continued decent showings from the natural gas utility and regulated transmission and storage unit seem plausible. Next year, the bottom line may well increase at a similar rate, to $2.40 a share, as we look for a further expansion of operating margins.

**Steady, though unexciting, results appear to be *in store* for the company out to 2014-2016.** The utility is one of the country's largest natural gas-only distributors. Moreover, the unregulated segments, especially pipelines, possess healthy overall growth prospects. Lastly, management may resume its successful strategy of purchasing less efficient utilities and shoring up their profitability via expense-reduction initiatives, rate relief, and aggressive marketing efforts. But excluding future acquisitions, due to many uncertainties, annual share-net growth may be in the mid-single-digit range over the 3- to 5-year horizon.

**The good-quality stock boasts a dividend yield that is higher than many natural gas utility stocks covered by *Value Line*.** Additional increases in the distribution, though modest, seem likely. Meanwhile, these shares are ranked Average (3) for Timeliness.

*Frederick L. Harris, III* *March 11, 2011*

(A) Fiscal year ends Sept. 30th. (B) Diluted shrs. Excl. nonrec. items: '03, d17¢; '06, d18¢; '07, d2¢; '09, 12¢; '10, 5¢. Next egs. rpt. due early May. (C) Dividends historically paid in early March, June, Sept., and Dec. ■ Div. reinvestment plan. Direct stock purchase plan avail. (D) In millions. (E) Qtrs may not add due to change in shrs outstanding.

| | |
|---|---|
| Company's Financial Strength | B+ |
| Stock's Price Stability | 100 |
| Price Growth Persistence | 50 |
| Earnings Predictability | 90 |

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# LACLEDE GROUP NYSE-LG

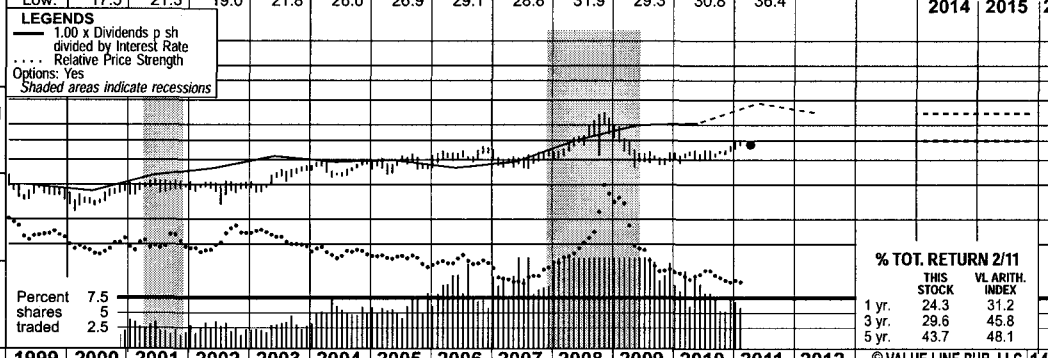
| RECENT PRICE | P/E RATIO | | RELATIVE P/E RATIO | DIV'D YLD | |
|---|---|---|---|---|---|
| 38.30 | 15.0 | (Trailing: 15.6 Median: 14.0) | 0.92 | 4.3% | VALUE LINE |

**TIMELINESS** 3 Raised 11/19/10
**SAFETY** 2 Raised 6/20/03
**TECHNICAL** 4 Lowered 3/11/11
**BETA** .60 (1.00 = Market)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 24.8 | 25.5 | 25.0 | 30.0 | 32.5 | 34.3 | 37.5 | 36.0 | 55.8 | 48.3 | 37.8 | 40.0 | |
| Low: | 17.5 | 21.3 | 19.0 | 21.8 | 26.0 | 26.9 | 29.1 | 28.8 | 31.9 | 29.3 | 30.8 | 36.4 | |

**Target Price Range**
2014 | 2015 | 2016

**LEGENDS**
— 1.00 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
*Shaded areas indicate recessions*




**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 55 | (+45%) | 13% |
| Low | 40 | (+5%) | 6% |

**Insider Decisions**

| | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Options | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| to Sell | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Institutional Decisions**

| | 1Q2010 | 2Q2010 | 3Q2010 |
|---|---|---|---|
| to Buy | 55 | 63 | 54 |
| to Sell | 60 | 58 | 53 |
| Hld's(000) | 10279 | 10043 | 10165 |

**% TOT. RETURN 2/11**

| | THIS STOCK | VL ARITH. INDEX |
|---|---|---|
| 1 yr. | 24.3 | 31.2 |
| 3 yr. | 29.6 | 45.8 |
| 5 yr. | 43.7 | 48.1 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24.79 | 31.03 | 34.33 | 31.04 | 26.04 | 29.99 | 53.08 | 39.84 | 54.95 | 59.59 | 75.43 | 93.51 | 93.40 | 100.44 | 85.49 | 77.83 | *77.80* | *78.90* | Revenues per sh | *96.15* |
| 2.55 | 3.29 | 3.32 | 3.02 | 2.56 | 2.68 | 3.00 | 2.56 | 3.15 | 2.79 | 2.98 | 3.81 | 3.87 | 4.22 | 4.56 | 4.11 | *4.35* | *4.50* | "Cash Flow" per sh | *5.20* |
| 1.27 | 1.87 | 1.84 | 1.58 | 1.47 | 1.37 | 1.61 | 1.18 | 1.82 | 1.82 | 1.90 | 2.37 | 2.31 | 2.64 | 2.92 | 2.43 | *2.55* | *2.65* | Earnings per sh A B | *3.15* |
| 1.24 | 1.26 | 1.30 | 1.32 | 1.34 | 1.34 | 1.34 | 1.34 | 1.34 | 1.35 | 1.37 | 1.40 | 1.45 | 1.49 | 1.53 | 1.57 | *1.61* | *1.65* | Div'ds Decl'd per sh C■ | *1.80* |
| 2.63 | 2.35 | 2.44 | 2.68 | 2.58 | 2.77 | 2.51 | 2.80 | 2.67 | 2.45 | 2.84 | 2.97 | 2.72 | 2.57 | 2.36 | 2.56 | *2.70* | *2.80* | Cap'l Spending per sh | *3.20* |
| 13.05 | 13.72 | 14.26 | 14.57 | 14.96 | 14.99 | 15.26 | 15.07 | 15.65 | 16.96 | 17.31 | 18.85 | 19.79 | 22.12 | 23.32 | 24.02 | *24.95* | *25.55* | Book Value per sh D | *31.15* |
| 17.42 | 17.56 | 17.56 | 17.63 | 18.88 | 18.88 | 18.88 | 18.96 | 19.11 | 20.98 | 21.17 | 21.36 | 21.65 | 21.99 | 22.17 | 22.29 | *22.50* | *23.00* | Common Shs Outst'g E | *26.00* |
| 15.5 | 11.9 | 12.5 | 15.5 | 15.8 | 14.9 | 14.5 | 20.0 | 13.6 | 15.7 | 16.2 | 13.6 | 14.2 | 14.3 | 13.4 | 13.7 | *Bold figures are* | | Avg Ann'l P/E Ratio | *15.5* |
| 1.04 | .75 | .72 | .81 | .90 | .97 | .74 | 1.09 | .78 | .83 | .86 | .73 | .75 | .86 | .89 | .87 | *Value Line* | | Relative P/E Ratio | *1.05* |
| 6.3% | 5.6% | 5.6% | 5.4% | 5.8% | 6.6% | 5.7% | 5.7% | 5.4% | 4.7% | 4.4% | 4.3% | 4.4% | 3.9% | 3.9% | 4.7% | *estimates* | | Avg Ann'l Div'd Yield | *3.8%* |
| | | | | | | 1002.1 | 755.2 | 1050.3 | 1250.3 | 1597.0 | 1997.6 | 2021.6 | 2209.0 | 1895.2 | 1735.0 | *1750* | *1815* | Revenues ($mill) A | *2500* |
| | | | | | | 30.5 | 22.4 | 34.6 | 36.1 | 40.1 | 50.5 | 49.8 | 57.6 | 64.3 | 54.0 | *57.5* | *61.0* | Net Profit ($mill) | *80.0* |
| | | | | | | 32.7% | 35.4% | 35.0% | 34.8% | 34.1% | 32.5% | 33.4% | 31.3% | 33.6% | 33.4% | *34.5%* | *35.0%* | Income Tax Rate | *35.0%* |
| | | | | | | 3.0% | 3.0% | 3.3% | 2.9% | 2.5% | 2.5% | 2.5% | 2.6% | 3.4% | 3.1% | *3.3%* | *3.4%* | Net Profit Margin | *3.2%* |
| | | | | | | 49.5% | 47.5% | 50.4% | 51.6% | 48.1% | 49.5% | 45.3% | 44.4% | 42.9% | 40.5% | *40.0%* | *40.0%* | Long-Term Debt Ratio | *40.0%* |
| | | | | | | 50.2% | 52.3% | 49.4% | 48.3% | 51.8% | 50.4% | 54.6% | 55.5% | 57.1% | 59.5% | *60.0%* | *60.0%* | Common Equity Ratio | *60.0%* |
| | | | | | | 574.1 | 546.6 | 605.0 | 737.4 | 707.9 | 798.9 | 784.5 | 876.1 | 906.3 | 899.9 | *935* | *980* | Total Capital ($mill) | *1350* |
| | | | | | | 602.5 | 594.4 | 621.2 | 646.9 | 679.5 | 763.8 | 793.8 | 823.2 | 855.9 | 884.1 | *915* | *945* | Net Plant ($mill) | *1250* |
| | | | | | | 6.9% | 6.0% | 7.4% | 6.6% | 7.6% | 8.4% | 8.5% | 8.1% | 8.7% | 7.4% | *7.5%* | *7.5%* | Return on Total Cap'l | *7.0%* |
| | | | | | | 10.5% | 7.8% | 11.5% | 10.1% | 10.9% | 12.5% | 11.6% | 11.8% | 12.4% | 10.1% | *10.5%* | *10.5%* | Return on Shr. Equity | *10.0%* |
| | | | | | | 10.5% | 7.8% | 11.6% | 10.1% | 10.9% | 12.5% | 11.6% | 11.8% | 12.4% | 10.1% | *10.5%* | *10.5%* | Return on Com Equity | *10.0%* |
| | | | | | | 1.8% | NMF | 3.1% | 2.7% | 3.1% | 5.1% | 4.3% | 5.2% | 5.9% | 3.6% | *4.0%* | *4.0%* | Retained to Com Eq | *4.5%* |
| | | | | | | 83% | 113% | 74% | 73% | 72% | 59% | 63% | 56% | 53% | 64% | *63%* | *62%* | All Div'ds to Net Prof | *57%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $461.8 mill. **Due in 5 Yrs** $155.0 mill.
**LT Debt** $364.3 mill. **LT Interest** $20.0 mill.
(Total interest coverage: 4.0x)

**Leases, Uncapitalized** Annual rentals $.9 mill.
**Pension Assets-9/10** $240.9 mill. **Oblig.** $398.4 mill.

**Pfd Stock** None
**Common Stock** 22,384,705 shs. **as of 1/27/11**

**MARKET CAP: $850 million (Small Cap)**

| CURRENT POSITION ($MILL.) | 2009 | 2010 | 12/31/10 |
|---|---|---|---|
| Cash Assets | 74.6 | 86.9 | 25.1 |
| Other | 294.2 | 327.3 | 412.6 |
| Current Assets | 368.8 | 414.2 | 437.7 |
| Accts Payable | 72.8 | 95.6 | 125.3 |
| Debt Due | 129.8 | 129.6 | 97.5 |
| Other | 96.5 | 108.7 | 92.5 |
| Current Liab. | 299.1 | 333.9 | 315.3 |
| Fix. Chg. Cov. | 420% | 391% | 410% |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 11.5% | 7.0% | *1.5%* |
| "Cash Flow" | 4.5% | 7.5% | *3.5%* |
| Earnings | 6.0% | 7.5% | *3.0%* |
| Dividends | 1.5% | 2.5% | *2.5%* |
| Book Value | 4.5% | 7.0% | *5.0%* |

| Fiscal Year Ends | QUARTERLY REVENUES ($ mill.)A Dec.31 | Mar.31 | Jun.30 | Sep.30 | Full Fiscal Year |
|---|---|---|---|---|---|
| 2008 | 504.0 | 747.7 | 505.5 | 451.8 | 2209.0 |
| 2009 | 674.3 | 659.1 | 309.9 | 251.9 | 1895.2 |
| 2010 | 491.2 | 635.3 | 324.5 | 284.0 | 1735.0 |
| 2011 | 444.2 | *645.8* | *340* | *320* | *1750* |
| 2012 | *490* | *650* | *388* | *287* | *1815* |

| Fiscal Year Ends | EARNINGS PER SHARE A B F Dec.31 | Mar.31 | Jun.30 | Sep.30 | Full Fiscal Year |
|---|---|---|---|---|---|
| 2008 | .99 | 1.39 | .41 | d.14 | 2.64 |
| 2009 | 1.42 | 1.40 | .31 | d.22 | 2.92 |
| 2010 | 1.03 | 1.26 | .21 | d.07 | 2.43 |
| 2011 | 1.05 | *1.30* | *.30* | *d.10* | *2.55* |
| 2012 | *1.05* | *1.36* | *.36* | *d.12* | *2.65* |

| Cal-endar | QUARTERLY DIVIDENDS PAID C■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .365 | .365 | .365 | .365 | 1.46 |
| 2008 | .375 | .375 | .375 | .375 | 1.50 |
| 2009 | .385 | .385 | .385 | .385 | 1.54 |
| 2010 | .395 | .395 | .395 | .395 | 1.58 |
| 2011 | .405 | | | | |

**BUSINESS:** Laclede Group, Inc., is a holding company for Laclede Gas, which distributes natural gas in eastern Missouri, including the city of St. Louis, St. Louis County, and parts of 10 other counties. Has roughly 630,000 customers. Purchased SM&P Utility Resources, 1/02; divested, 3/08. Therms sold and transported in fiscal 2010: .97 mill. Revenue mix for regulated operations: residential, 68%; commercial and industrial, 24%; transportation, 2%; other, 6%. Has around 1,700 employees. Officers and directors own approximately 8% of common shares (1/11 proxy). Chairman, Chief Executive Officer, and President: Douglas H. Yaeger. Incorporated: Missouri. Address: 720 Olive Street, St. Louis, Missouri 63101. Telephone: 314-342-0500. Internet: www.thelacledegroup.com.

**Share net for Laclede Group was a couple of pennies higher in the opening quarter of fiscal 2011 (ends September 30th) than the year-earlier tally.** Laclede Gas, the core subsidiary, benefited partly from a rate increase that went into effect on September 1, 2010. Too, operating costs here were down, made possible by effective collections efforts and expense-containment initiatives. Meanwhile, profits for Laclede Energy Resources were somewhat better, since results for the first quarter of last year include net unrealized losses on energy-related derivatives. But margins here were lower, as narrower regional price differentials continued (given a less-than-optimal economic environment).

**In all, consolidated share net could advance roughly 5%, to $2.55, in fiscal 2011.** Assuming further expansion of operating margins, the bottom line may well rise at a similar rate, to $2.65 a share, the next year.

**Prospects out to 2014-2016 are not exciting.** The customer base for the natural gas distributor has tended to grow at a sluggish annual rate for some time. Since the service territory, based in eastern Missouri, is in a mature phase, we expect more of the same going forward. Laclede Energy Resources has promising growth potential, but that unit has contributed only a small portion to total profits, on a historical basis. Consequently, Laclede's annual share-net advances may only be in the mid-single-digit range over the 3- to 5-year horizon. A major acquisition could brighten things, but management appears to be satisfied with the status quo, right now.

**The equity's main attraction is the dividend yield**, which is a bit higher than the average of all natural gas utility stocks tracked by *Value Line*. The payout should continue to be well-covered by the company's earnings, but future hikes may be moderate, at best. That's largely because of Laclede Gas' unspectacular long-term expansion prospects.

**Total return possibilities are not exciting.** Indeed, these shares are trading near our 2014-2016 Target Price Range. The dividend will probably continue to grow at a slow rate, as well.

*Frederick L. Harris, III* *March 11, 2011*

(A) Fiscal year ends Sept. 30th.
(B) Based on average shares outstanding thru. '97, then diluted. Excludes nonrecurring loss: '06, 7¢. Excludes gain from discontinued operations: '08, 94¢. Next earnings report due late April. (C) Dividends historically paid in early January, April, July, and October. ■ Dividend reinvestment plan available. (D) Incl. deferred charges. In '10: $487.1 mill., $21.85/sh.
(E) In millions.
(F) Qtly. egs. may not sum due to rounding or change in shares outstanding.

| | |
|---|---|
| Company's Financial Strength | B++ |
| Stock's Price Stability | 100 |
| Price Growth Persistence | 55 |
| Earnings Predictability | 80 |

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# NEW JERSEY RES. NYSE-NJR

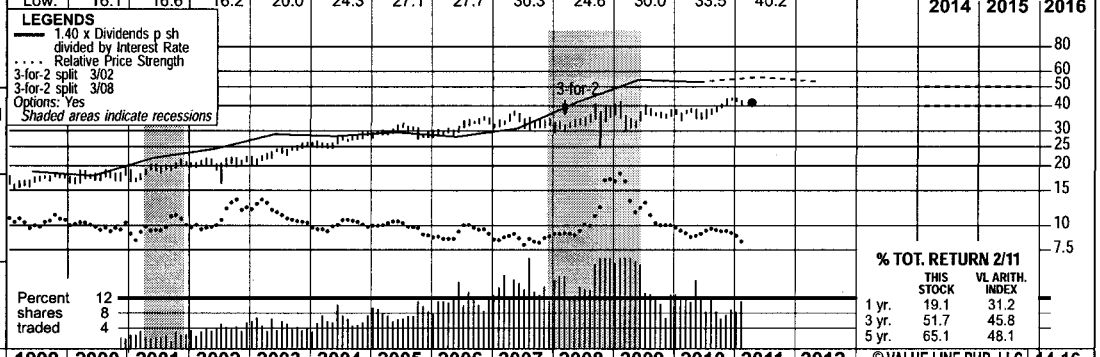
| RECENT PRICE | 41.73 | P/E RATIO | 15.7 (Trailing: 16.6 Median: 15.0) | RELATIVE P/E RATIO | 0.96 | DIV'D YLD | 3.5% | VALUE LINE |
|---|---|---|---|---|---|---|---|---|

**TIMELINESS** 4 Lowered 3/11/11
**SAFETY** 1 Raised 9/15/06
**TECHNICAL** 3 Lowered 11/19/10
**BETA** .65 (1.00 = Market)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 19.8 | 21.7 | 22.4 | 26.4 | 29.7 | 32.9 | 35.4 | 37.6 | 41.1 | 42.4 | 44.1 | 44.1 | |
| Low: | 16.1 | 16.6 | 16.2 | 20.0 | 24.3 | 27.1 | 27.7 | 30.3 | 24.6 | 30.0 | 33.5 | 40.2 | |

**Target Price Range** 2014 | 2015 | 2016

**LEGENDS**
— 1.40 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 3/02
3-for-2 split 3/08
Options: Yes
Shaded areas indicate recessions




**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 50 | (+20%) | 8% |
| Low | 40 | (-5%) | 3% |

**Insider Decisions**

| | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Options | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| to Sell | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Institutional Decisions**

| | 1Q2010 | 2Q2010 | 3Q2010 |
|---|---|---|---|
| to Buy | 53 | 59 | 60 |
| to Sell | 77 | 76 | 64 |
| Hld's(000) | 23468 | 23012 | 23366 |

**% TOT. RETURN 2/11**

| | THIS STOCK | VL ARITH. INDEX |
|---|---|---|
| 1 yr. | 19.1 | 31.2 |
| 3 yr. | 51.7 | 45.8 |
| 5 yr. | 65.1 | 48.1 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11.36 | 13.48 | 17.31 | 17.73 | 22.65 | 29.42 | 51.22 | 44.11 | 62.29 | 60.89 | 76.19 | 79.63 | 72.62 | 90.74 | 62.34 | 63.81 | *68.30* | *72.15* | Revenues per sh A | *78.75* |
| 1.42 | 1.48 | 1.63 | 1.74 | 1.86 | 1.99 | 2.12 | 2.14 | 2.38 | 2.50 | 2.62 | 2.73 | 2.44 | 3.62 | 3.16 | 3.28 | *3.50* | *3.80* | "Cash Flow" per sh | *4.15* |
| .86 | .92 | .99 | 1.04 | 1.11 | 1.20 | 1.30 | 1.39 | 1.59 | 1.70 | 1.77 | 1.87 | 1.55 | 2.70 | 2.40 | 2.46 | *2.65* | *2.85* | Earnings per sh B | *3.15* |
| .68 | .69 | .71 | .73 | .75 | .76 | .78 | .80 | .83 | .87 | .91 | .96 | 1.01 | 1.11 | 1.24 | 1.36 | *1.44* | *1.48* | Div'ds Decl'd per sh C■ | *1.60* |
| 1.18 | 1.19 | 1.15 | 1.07 | 1.21 | 1.23 | 1.10 | 1.02 | 1.14 | 1.45 | 1.28 | 1.28 | 1.46 | 1.72 | 1.81 | 2.09 | *1.95* | *2.00* | Cap'l Spending per sh | *2.00* |
| 6.47 | 6.73 | 6.92 | 7.26 | 7.57 | 8.29 | 8.80 | 8.71 | 10.26 | 11.25 | 10.60 | 15.00 | 15.50 | 17.28 | 16.59 | 17.53 | *18.60* | *19.15* | Book Value per sh D | *23.65* |
| 40.03 | 40.69 | 40.23 | 40.07 | 39.92 | 39.59 | 40.00 | 41.50 | 40.85 | 41.61 | 41.32 | 41.44 | 41.61 | 42.06 | 41.59 | 41.36 | *41.00* | *40.00* | Common Shs Outst'g E | *40.00* |
| 11.8 | 13.6 | 13.5 | 15.3 | 15.2 | 14.7 | 14.2 | 14.7 | 14.0 | 15.3 | 16.8 | 16.1 | 21.6 | 12.3 | 14.9 | 15.0 | *Bold figures are* | | Avg Ann'l P/E Ratio | *14.0* |
| .79 | .85 | .78 | .80 | .87 | .96 | .73 | .80 | .80 | .81 | .89 | .87 | 1.15 | .74 | .99 | .96 | *Value Line* | | Relative P/E Ratio | *.95* |
| 6.7% | 5.6% | 5.3% | 4.6% | 4.5% | 4.4% | 4.2% | 3.9% | 3.7% | 3.3% | 3.1% | 3.2% | 3.0% | 3.3% | 3.5% | 3.7% | *estimates* | | Avg Ann'l Div'd Yield | *3.7%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $785.6 mill. **Due in 5 Yrs** $544.5 mill.
**LT Debt** $432.5 mill. **LT Interest** $11.7 mill.
Incl. $14.6 mill. capitalized leases.
(LT interest earned: 7.5x; total interest coverage: 7.5x)
**Pension Assets-9/10** $150.5 mill. **Oblig.** $244.5 mill.
**Pfd Stock** None

**Common Stock 41,250,098 shs.**
**as of 11/22/10**
**MARKET CAP: $1.7 billion (Mid Cap)**

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2048.4 | 1830.8 | 2544.4 | 2533.6 | 3148.3 | 3299.6 | 3021.8 | 3816.2 | 2592.5 | 2639.3 | *2800* | *2885* | Revenues ($mill) A | *3150* |
| 52.3 | 56.8 | 65.4 | 71.6 | 74.4 | 78.5 | 65.3 | 113.9 | 101.0 | 102.4 | *110* | *115* | Net Profit ($mill) | *125* |
| 38.0% | 38.7% | 39.4% | 39.1% | 39.1% | 38.9% | 38.8% | 37.8% | 27.1% | 37.6% | *35.0%* | *35.0%* | Income Tax Rate | *35.0%* |
| 2.6% | 3.1% | 2.6% | 2.8% | 2.4% | 2.4% | 2.2% | 3.0% | 3.9% | 3.9% | *4.0%* | *4.0%* | Net Profit Margin | *4.0%* |
| 50.1% | 50.6% | 38.1% | 40.3% | 42.0% | 34.8% | 37.3% | 38.5% | 39.8% | 37.2% | *37.0%* | *39.5%* | Long-Term Debt Ratio | *34.5%* |
| 49.9% | 49.4% | 61.9% | 59.7% | 58.0% | 65.2% | 62.7% | 61.5% | 60.2% | 62.8% | *63.0%* | *60.5%* | Common Equity Ratio | *65.5%* |
| 706.2 | 732.4 | 676.8 | 783.8 | 755.3 | 954.0 | 1028.0 | 1182.1 | 1144.8 | 1154.4 | *1210* | *1265* | Total Capital ($mill) | *1445* |
| 743.9 | 756.4 | 852.6 | 880.4 | 905.1 | 934.9 | 970.9 | 1017.3 | 1064.4 | 1135.7 | *1160* | *1180* | Net Plant ($mill) | *1255* |
| 8.5% | 8.7% | 10.7% | 10.1% | 11.2% | 9.6% | 7.7% | 10.7% | 9.7% | 9.8% | *10.0%* | *10.0%* | Return on Total Cap'l | *9.5%* |
| 14.8% | 15.7% | 15.6% | 15.3% | 17.0% | 12.6% | 10.1% | 15.7% | 14.6% | 14.1% | *14.5%* | *15.0%* | Return on Shr. Equity | *13.5%* |
| 14.9% | 15.7% | 15.6% | 15.3% | 17.0% | 12.6% | 10.1% | 15.7% | 14.6% | 14.1% | *14.5%* | *15.0%* | Return on Com Equity | *13.5%* |
| 6.1% | 6.9% | 7.7% | 7.8% | 8.5% | 6.3% | 3.6% | 9.5% | 7.2% | 6.8% | *6.5%* | *7.0%* | Retained to Com Eq | *6.5%* |
| 59% | 56% | 51% | 49% | 50% | 50% | 64% | 40% | 50% | 52% | *54%* | *52%* | All Div'ds to Net Prof | *51%* |

| CURRENT POSITION ($MILL.) | 2009 | 2010 | 12/30/10 |
|---|---|---|---|
| Cash Assets | 36.2 | .9 | 6.7 |
| Other | 648.0 | 784.1 | 910.9 |
| Current Assets | 684.2 | 785.0 | 917.6 |
| Accts Payable | 44.4 | 47.3 | 45.3 |
| Debt Due | 149.9 | 178.9 | 353.1 |
| Other | 361.9 | 479.6 | 443.2 |
| Current Liab. | 556.2 | 705.8 | 841.6 |
| Fix. Chg. Cov. | 711% | 700% | 700% |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 12.0% | 1.5% | *1.5%* |
| "Cash Flow" | 6.0% | 6.0% | *3.5%* |
| Earnings | 8.5% | 8.5% | *4.0%* |
| Dividends | 5.0% | 7.5% | *4.5%* |
| Book Value | 8.5% | 10.0% | *5.5%* |

| Fiscal Year Ends | QUARTERLY REVENUES ($ mill.) A Dec.31 | Mar.31 | Jun.30 | Sep.30 | Full Fiscal Year |
|---|---|---|---|---|---|
| 2008 | 811.1 | 1178 | 1000 | 827.1 | 3816.2 |
| 2009 | 801.3 | 937.5 | 441.1 | 412.6 | 2592.5 |
| 2010 | 609.6 | 918.4 | 479.8 | 631.5 | 2639.3 |
| 2011 | 713.2 | *936.8* | *490* | *660* | *2800* |
| 2012 | *735* | *955* | *510* | *685* | *2885* |

| Fiscal Year Ends | EARNINGS PER SHARE A B Dec.31 | Mar.31 | Jun.30 | Sep.30 | Full Fiscal Year |
|---|---|---|---|---|---|
| 2008 | 1.31 | 1.86 | d.10 | d.39 | 2.70 |
| 2009 | .77 | 1.71 | .03 | d.12 | 2.40 |
| 2010 | .66 | 1.55 | .28 | d.03 | 2.46 |
| 2011 | .71 | *1.60* | *.30* | *.04* | *2.65* |
| 2012 | *.75* | *1.65* | *.35* | *.10* | *2.85* |

| Cal-endar | QUARTERLY DIVIDENDS PAID C E■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .253 | .253 | .253 | .253 | 1.01 |
| 2008 | .267 | .28 | .28 | .28 | 1.11 |
| 2009 | .31 | .31 | .31 | .31 | 1.24 |
| 2010 | .34 | .34 | .34 | .34 | 1.36 |
| 2011 | .36 | | | | |

**BUSINESS:** New Jersey Resources Corp. is a holding company providing retail/wholesale energy svcs. to customers in New Jersey, and in states from the Gulf Coast to New England, and Canada. New Jersey Natural Gas had about 490,310 customers at 9/30/10 in Monmouth and Ocean Counties, and other N.J. Counties. Fiscal 2010 volume: 150 bill. cu. ft. (5% interruptible, 39% residential and commercial and electric utility, 56% incentive programs). N.J. Natural Energy subsidiary provides unregulated retail/wholesale natural gas and related energy svcs. 2010 dep. rate: 2.2%. Has 887 empls. Off./dir. own about 1.5% of common (12/10 Proxy). Chrmn., CEO & Pres. : Laurence M. Downes. Inc.: NJ Addr.: 1415 Wyckoff Road, Wall, NJ 07719. Tel.: 732-938-1480. Web: www.njresources.com.

**New Jersey Resources is off to a good start in fiscal 2011.** Top-line volumes advanced 17% over last year's same period, thanks to 1,640 additional customers at the New Jersey Natural Gas (NJNG) subsidiary. Elsewhere, NJR's midstream assets like the Steckman Ridge storage facility and its equity investment in the Iroquois Pipeline are both contributing nicely. Too, lower operating and maintenance expenses have been aiding profitability, contributing to a 7.6% increase in the bottom line, to $0.71 a share.

**The company will likely post a high single-digit earnings advance this year.** NJNG ought to contribute the lion's share to the top and bottom lines in 2011. That unit is expected to add about 6,500 new accounts this year, as natural gas continues to hold a price advantage over other home heating fuels. This is further benefited from energy efficiency initiatives offered by the state of New Jersey.

**Capital projects augur well for long-term prospects.** Large infrastructure enhancement initiatives should help to boost efficiency and reliability at NJR. The company has 14 projects planned and in construction. All of these are scheduled for accelerated completion, this summer.

**The balance sheet is in good shape.** Cash reserves increased sevenfold, to about $6.7 million during the first quarter. Historically this is still a pretty low level for NJR, but the trend is in the right direction. Meanwhile, its long-term debt levels have remained flat during the December interim. And the board recently increased the quarterly dividend by 5.9%, to $0.36 a share, or $1.44 annual.

**We have introduced our 2012 bottom-line estimate of $2.85 a share.** Additional customer accounts are projected at 12,000-14,000 over the next two years which should aide the top line. Meanwhile, as the Sunlight Advantage solar project gains steam, the company could benefit from federal investment tax credits that may further boost profitability.

**But, at the current price, the stock does not stand out.** It offers below-average appreciation potential for the pull to 2014-2016. And its dividend yield is a tad below average when compared to other utilities in the *Value Line* universe.

*Bryan J. Fong* *March 11, 2011*

(A) Fiscal year ends Sept. 30th.
(B) Diluted earnings. Qtly egs may not sum to total due to change in shares outstanding. Next earnings report due late April.
(C) Dividends historically paid in early January, April, July, and October. ■ Dividend reinvestment plan available.
(D) Includes regulatory assets in 2010: $454.6 million, $10.99/share.
(E) In millions, adjusted for splits.
(F) Restated.

| | |
|---|---|
| Company's Financial Strength | A |
| Stock's Price Stability | 100 |
| Price Growth Persistence | 60 |
| Earnings Predictability | 50 |

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# N.W. NAT'L GAS NYSE-NWN

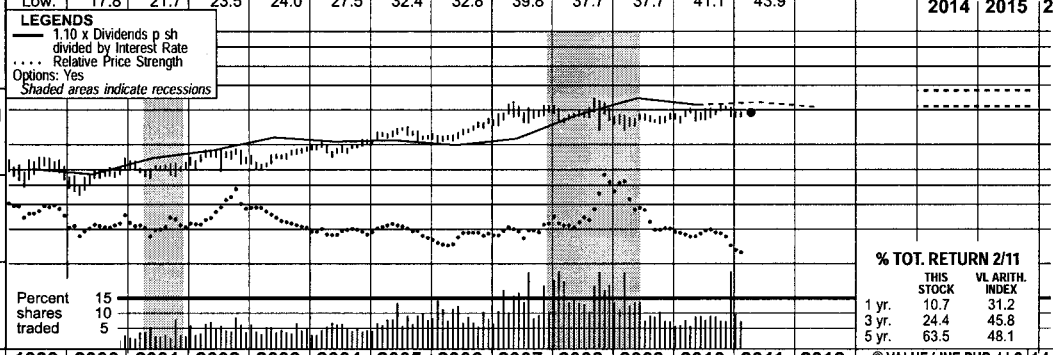
RECENT PRICE **46.70** | P/E RATIO **17.9** (Trailing: 17.1 Median: 16.0) | RELATIVE P/E RATIO **1.10** | DIV'D YLD **3.7%** | VALUE LINE

**TIMELINESS** 3 Raised 8/13/10
**SAFETY** 1 Raised 3/18/05
**TECHNICAL** 4 Lowered 3/4/11
**BETA** .60 (1.00 = Market)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 27.5 | 26.8 | 30.7 | 31.3 | 34.1 | 39.6 | 43.7 | 52.8 | 55.2 | 46.5 | 50.9 | 47.4 |
| Low: | 17.8 | 21.7 | 23.5 | 24.0 | 27.5 | 32.4 | 32.8 | 39.8 | 37.7 | 37.7 | 41.1 | 43.9 |

**Target Price Range** 2014 | 2015 | 2016

**LEGENDS**
— 1.10 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
*Shaded areas indicate recessions*



**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 60 | (+30%) | 10% |
| Low | 50 | (+5%) | 5% |

**Insider Decisions**

| | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Options | 0 | 2 | 2 | 0 | 3 | 3 | 0 | 0 | 0 |
| to Sell | 0 | 2 | 2 | 0 | 3 | 4 | 0 | 0 | 1 |

**Institutional Decisions**

| | 1Q2010 | 2Q2010 | 3Q2010 |
|---|---|---|---|
| to Buy | 56 | 62 | 63 |
| to Sell | 69 | 74 | 59 |
| Hld's(000) | 13750 | 15136 | 15723 |

Percent shares traded 15 10 5

**% TOT. RETURN 2/11**

| | THIS STOCK | VL ARITH. INDEX |
|---|---|---|
| 1 yr. | 10.7 | 31.2 |
| 3 yr. | 24.4 | 45.8 |
| 5 yr. | 63.5 | 48.1 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16.02 | 16.86 | 15.82 | 16.77 | 18.17 | 21.09 | 25.78 | 25.07 | 23.57 | 25.69 | 33.01 | 37.20 | 39.13 | 39.16 | 38.17 | 30.45 | *29.55* | *30.95* | Revenues per sh | *35.25* |
| 3.41 | 3.86 | 3.72 | 3.24 | 3.72 | 3.68 | 3.86 | 3.65 | 3.85 | 3.92 | 4.34 | 4.76 | 5.41 | 5.31 | 5.20 | 5.15 | *5.40* | *5.60* | "Cash Flow" per sh | *6.10* |
| 1.61 | 1.97 | 1.76 | 1.02 | 1.70 | 1.79 | 1.88 | 1.62 | 1.76 | 1.86 | 2.11 | 2.35 | 2.76 | 2.57 | 2.83 | 2.73 | *2.80* | *2.90* | Earnings per sh A | *3.20* |
| 1.18 | 1.20 | 1.21 | 1.22 | 1.23 | 1.24 | 1.25 | 1.26 | 1.27 | 1.30 | 1.32 | 1.39 | 1.44 | 1.52 | 1.60 | 1.68 | *1.72* | *1.76* | Div'ds Decl'd per sh B■ | *1.88* |
| 3.02 | 3.70 | 5.07 | 4.02 | 4.78 | 3.46 | 3.23 | 3.11 | 4.90 | 5.52 | 3.48 | 3.56 | 4.48 | 3.92 | 5.09 | 9.30 | *3.75* | *4.50* | Cap'l Spending per sh | *6.70* |
| 14.55 | 15.37 | 16.02 | 16.59 | 17.12 | 17.93 | 18.56 | 18.88 | 19.52 | 20.64 | 21.28 | 22.01 | 22.52 | 23.71 | 24.88 | 25.95 | *26.90* | *28.00* | Book Value per sh | *31.60* |
| 22.24 | 22.56 | 22.86 | 24.85 | 25.09 | 25.23 | 25.23 | 25.59 | 25.94 | 27.55 | 27.58 | 27.24 | 26.41 | 26.50 | 26.53 | 26.67 | *26.75* | *26.80* | Common Shs Outst'g C | *26.95* |
| 12.9 | 11.7 | 14.4 | 26.7 | 14.5 | 12.4 | 12.9 | 17.2 | 15.8 | 16.7 | 17.0 | 15.9 | 16.7 | 18.1 | 15.2 | 17.9 | *Bold figures are* | | Avg Ann'l P/E Ratio | *17.0* |
| .86 | .73 | .83 | 1.39 | .83 | .81 | .66 | .94 | .90 | .88 | .91 | .86 | .89 | 1.09 | 1.01 | 1.10 | *Value Line* | | Relative P/E Ratio | *1.15* |
| 5.7% | 5.2% | 4.8% | 4.5% | 5.0% | 5.6% | 5.1% | 4.5% | 4.6% | 4.2% | 3.7% | 3.7% | 3.1% | 3.3% | 3.7% | 3.8% | *estimates* | | Avg Ann'l Div'd Yield | *3.6%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $859.1 mill. **Due in 5 Yrs** $260 mill.
**LT Debt** $591.7 mill. **LT Interest** $41.0 mill.

(Total interest coverage: 7.0x)

**Pension Assets-12/10** $219 mill. **Oblig.** $337.3 mill.

**Pfd Stock** None

**Common Stock** 26,668,712 shares

**MARKET CAP $1.2 billion (Mid Cap)**

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 650.3 | 641.4 | 611.3 | 707.6 | 910.5 | 1013.2 | 1033.2 | 1037.9 | 1012.7 | 812.1 | *820* | *850* | Revenues ($mill) | *950* |
| 50.2 | 43.8 | 46.0 | 50.6 | 58.1 | 65.2 | 74.5 | 68.5 | 75.1 | 72.7 | *75.0* | *78.0* | Net Profit ($mill) | *86.0* |
| 35.4% | 34.9% | 33.7% | 34.4% | 36.0% | 36.3% | 37.2% | 36.9% | 38.3% | 31.4% | *38.0%* | *38.0%* | Income Tax Rate | *38.0%* |
| 7.7% | 6.8% | 7.5% | 7.1% | 6.4% | 6.4% | 7.2% | 6.6% | 7.4% | 8.9% | *9.5%* | *9.5%* | Net Profit Margin | *9.0%* |
| 43.0% | 47.6% | 49.7% | 46.0% | 47.0% | 46.3% | 46.3% | 44.9% | 47.7% | 46.5% | *43%* | *41%* | Long-Term Debt Ratio | *34%* |
| 53.2% | 51.5% | 50.3% | 54.0% | 53.0% | 53.7% | 53.7% | 55.1% | 52.3% | 53.5% | *57%* | *59%* | Common Equity Ratio | *66%* |
| 880.5 | 937.3 | 1006.6 | 1052.5 | 1108.4 | 1116.5 | 1106.8 | 1140.4 | 1261.8 | 1294.8 | *1270* | *1270* | Total Capital ($mill) | *1285* |
| 965.0 | 995.6 | 1205.9 | 1318.4 | 1373.4 | 1425.1 | 1495.9 | 1549.1 | 1670.1 | 1854.2 | *2005* | *2165* | Net Plant ($mill) | *2495* |
| 6.9% | 5.9% | 5.7% | 5.9% | 6.5% | 7.1% | 8.5% | 7.7% | 7.3% | 5.6% | *6.0%* | *6.0%* | Return on Total Cap'l | *6.5%* |
| 10.0% | 8.9% | 9.1% | 8.9% | 9.9% | 10.9% | 12.5% | 10.9% | 11.4% | 10.5% | *10.5%* | *10.5%* | Return on Shr. Equity | *10.0%* |
| 10.2% | 8.5% | 9.0% | 8.9% | 9.9% | 10.9% | 12.5% | 10.9% | 11.4% | 10.5% | *10.5%* | *10.5%* | Return on Com Equity | *10.0%* |
| 3.5% | 1.9% | 2.6% | 2.7% | 3.7% | 4.5% | 6.0% | 4.5% | 5.0% | 4.0% | *4.0%* | *4.0%* | Retained to Com Eq | *4.0%* |
| 67% | 79% | 72% | 69% | 63% | 59% | 52% | 59% | 56% | 61% | *62%* | *61%* | All Div'ds to Net Prof | *59%* |

| CURRENT POSITION ($MILL.) | 2008 | 2009 | 12/31/10 |
|---|---|---|---|
| Cash Assets | 6.9 | 8.4 | 3.5 |
| Other | 474.1 | 319.8 | 326.8 |
| Current Assets | 481.0 | 328.2 | 330.3 |
| Accts Payable | 94.4 | 123.7 | 93.2 |
| Debt Due | 248.0 | 137.0 | 267.4 |
| Other | 208.9 | 131.9 | 107.6 |
| Current Liab. | 551.3 | 392.6 | 468.2 |
| Fx. Chg. Cov. | 408% | 395% | 495% |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 8.5% | 9.5% | -2.0% |
| "Cash Flow" | 4.0% | 7.0% | 2.0% |
| Earnings | 6.0% | 9.5% | 3.0% |
| Dividends | 2.0% | 3.5% | 4.0% |
| Book Value | 3.5% | 4.0% | 4.0% |

| Cal-endar | QUARTERLY REVENUES ($ mill.) Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 387.7 | 191.3 | 109.7 | 349.2 | 1037.9 |
| 2009 | 437.4 | 149.1 | 116.9 | 309.3 | 1012.7 |
| 2010 | 286.5 | 162.4 | 95.1 | 268.1 | 812.1 |
| 2011 | *320* | *165* | *100* | *235* | *820* |
| 2012 | *325* | *175* | *110* | *240* | *850* |

| Cal-endar | EARNINGS PER SHARE A Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 1.62 | .08 | d.38 | 1.25 | 2.57 |
| 2009 | 1.78 | .12 | d.25 | 1.18 | 2.83 |
| 2010 | 1.64 | .26 | d.28 | 1.11 | 2.73 |
| 2011 | *1.75* | *.10* | *d.35* | *1.30* | *2.80* |
| 2012 | *1.80* | *.20* | *d.40* | *1.30* | *2.90* |

| Cal-endar | QUARTERLY DIVIDENDS PAID B■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .355 | .355 | .355 | .375 | 1.44 |
| 2008 | .375 | .375 | .375 | .395 | 1.52 |
| 2009 | .395 | .395 | .395 | .415 | 1.60 |
| 2010 | .415 | .415 | .415 | .435 | 1.68 |
| 2011 | .435 | | | | |

**BUSINESS:** Northwest Natural Gas Co. distributes natural gas to 90 communities, 668,000 customers, in Oregon (90% of customers) and in southwest Washington state. Principal cities served: Portland and Eugene, OR; Vancouver, WA. Service area population: 2.5 mill. (77% in OR). Company buys gas supply from Canadian and U.S. producers; has transportation rights on Northwest Pipeline system. Owns local underground storage. Rev. breakdown: residential, 57%; commercial, 26%; industrial, gas transportation, and other, 17%. Employs 1,061. Barclays Global owns 6.6% of shares; officers and directors, 1.4% (4/10 proxy). CEO: Gregg S. Kantor. Inc.: Oregon. Address: 220 NW 2nd Ave., Portland, OR 97209. Telephone: 503-226-4211. Internet: www.nwnatural.com.

**Northwest Natural Gas is slated to perform well in 2011.** Improving customer growth levels and various new projects should result in a bottom-line boost.

**Customer growth continues to gain momentum, which ought to fuel revenue advances this year.** We expect the modest increases experienced over the past few quarters to continue, as the economy stabilizes. Growth should pick up considerably in 2012, and remain elevated through the 2014-2016 period.

**The company is focusing on infrastructure to boost the top and bottom lines.** The Gill Ranch project, a California-based storage facility, is likely to add to earnings in 2011. Northwest has already signed several multiple-year contracts for Gill Ranch, and expects the base to continue growing throughout the year. Finally, management has indicated that the company will begin a second phase of expansion at the facility, which should be operational next year. This, in turn, ought to provide a boost to earnings by 2014-2016. Another major expansion in the works is the Mist Storage facility; full capacity should be reached late next year. Lastly, hope has finally dawned for the Palomar project. Williams Northwest Pipeline was brought in to join the venture, which greatly increases the chance of a successful completion. The company is currently signing up shippers, as the Palomar Pipeline is likely to begin operations in late 2014. Investors should note that as a result of previous problems on the project, the company's stake has been reduced from 50% to 33%, limiting future benefits.

**Rate cases are likely to play a part in earnings growth.** It is quite likely that Northwest will choose to file for a rate increase in Oregon in the third quarter. The state regulatory body is quite sympathetic, and it has been eight years since the last increase. This raises the likelihood of a favorable ruling. Management has indicated a rate case is in the works in Washington, as well, with a decision expected late 2011 or early 2012. No other details are known.

**There are better options in the industry at this time.** This neutrally ranked stock has limited long-term appreciation potential, and its dividend yield is only marginally above the industry average.

*Sahana Zutshi* *March 11, 2011*

(A) Diluted earnings per share. Excludes nonrecurring items: '98, $0.15; '00, $0.11; '06, ($0.06); '08, ($0.03); '09, 6¢. Next earnings report due late April.
(B) Dividends historically paid in mid-February, May, August, and November.
■ Dividend reinvestment plan available.
(C) In millions.

| | |
|---|---|
| Company's Financial Strength | A |
| Stock's Price Stability | 100 |
| Price Growth Persistence | 70 |
| Earnings Predictability | 95 |

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# PIEDMONT NAT'L. GAS NYSE-PNY

| RECENT PRICE | P/E RATIO | | RELATIVE P/E RATIO | DIV'D YLD | |
|---|---|---|---|---|---|
| 29.24 | 18.3 | (Trailing: 19.1 Median: 17.0) | 1.12 | 3.8% | VALUE LINE |

**TIMELINESS** 4 Raised 3/11/11
**SAFETY** 2 New 7/27/90
**TECHNICAL** 3 Lowered 7/2/10
**BETA** .65 (1.00 = Market)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 19.7 | 19.0 | 19.0 | 22.0 | 24.3 | 25.8 | 28.4 | 28.0 | 35.3 | 32.0 | 30.1 | 29.8 |
| Low: | 11.8 | 14.6 | 13.7 | 16.6 | 19.2 | 21.3 | 23.2 | 22.0 | 21.7 | 20.7 | 23.9 | 27.6 |

**Target Price Range** 2014 | 2015 | 2016

**2014-16 PROJECTIONS**

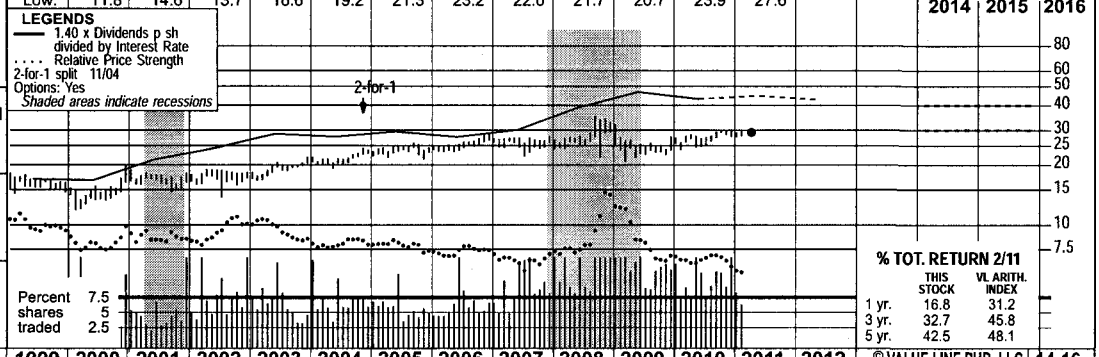
| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 40 | (+35%) | 12% |
| Low | 30 | (+5%) | 5% |

**Insider Decisions**

| | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| Options | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| to Sell | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |

**Institutional Decisions**

| | 1Q2010 | 2Q2010 | 3Q2010 |
|---|---|---|---|
| to Buy | 70 | 84 | 87 |
| to Sell | 77 | 95 | 81 |
| Hld's(000) | 33448 | 32253 | 33260 |




**% TOT. RETURN 2/11**

| | THIS STOCK | VL ARITH. INDEX |
|---|---|---|
| 1 yr. | 16.8 | 31.2 |
| 3 yr. | 32.7 | 45.8 |
| 5 yr. | 42.5 | 48.1 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.76 | 11.59 | 12.84 | 12.45 | 10.97 | 13.01 | 17.06 | 12.57 | 18.14 | 19.95 | 22.96 | 25.80 | 23.37 | 28.52 | 22.36 | 21.48 | *22.40* | *23.25* | Revenues per sh A | *26.15* |
| 1.25 | 1.49 | 1.62 | 1.72 | 1.70 | 1.77 | 1.81 | 1.81 | 2.04 | 2.31 | 2.43 | 2.51 | 2.64 | 2.77 | 3.01 | 2.91 | *3.00* | *3.15* | "Cash Flow" per sh | *3.45* |
| .73 | .84 | .93 | .98 | .93 | 1.01 | 1.01 | .95 | 1.11 | 1.27 | 1.32 | 1.28 | 1.40 | 1.49 | 1.67 | 1.55 | *1.60* | *1.70* | Earnings per sh AB | *1.90* |
| .54 | .57 | .61 | .64 | .68 | .72 | .76 | .80 | .82 | .85 | .91 | .95 | .99 | 1.03 | 1.07 | 1.11 | *1.15* | *1.19* | Div'ds Decl'd per sh C■ | *1.31* |
| 1.72 | 1.64 | 1.52 | 1.48 | 1.58 | 1.65 | 1.29 | 1.21 | 1.16 | 1.85 | 2.50 | 2.74 | 1.85 | 2.47 | 1.76 | 2.75 | *4.40* | *2.80* | Cap'l Spending per sh | *2.95* |
| 6.16 | 6.53 | 6.95 | 7.45 | 7.86 | 8.26 | 8.63 | 8.91 | 9.36 | 11.15 | 11.53 | 11.83 | 11.99 | 12.11 | 12.67 | 13.35 | *13.60* | *14.15* | Book Value per sh D | *14.90* |
| 57.67 | 59.10 | 60.39 | 61.48 | 62.59 | 63.83 | 64.93 | 66.18 | 67.31 | 76.67 | 76.70 | 74.61 | 73.23 | 73.26 | 73.27 | 72.28 | *71.50* | *71.00* | Common Shs Outst'g E | *69.00* |
| 13.8 | 13.9 | 13.6 | 16.3 | 17.7 | 14.3 | 16.7 | 18.4 | 16.7 | 16.6 | 17.9 | 19.2 | 18.7 | 18.2 | 15.4 | 17.1 | *Bold figures are* | | Avg Ann'l P/E Ratio | *18.0* |
| .92 | .87 | .78 | .85 | 1.01 | .93 | .86 | 1.01 | .95 | .88 | .95 | 1.04 | .99 | 1.10 | 1.03 | 1.08 | *Value Line* | | Relative P/E Ratio | *1.20* |
| 5.4% | 4.9% | 4.8% | 4.0% | 4.1% | 5.0% | 4.5% | 4.6% | 4.4% | 4.1% | 3.8% | 3.9% | 3.8% | 3.8% | 4.1% | 4.2% | *estimates* | | Avg Ann'l Div'd Yield | *3.7%* |

**CAPITAL STRUCTURE as of 10/31/10**
**Total Debt** $973.9 mill. **Due in 5 Yrs** $160.0 mill.
**LT Debt** $671.9 mill. **LT Interest** $50.2 mill.
(LT interest earned: 4.1x; total interest coverage: 3.5x)

**Pension Assets-10/10** $228.3 mill. **Oblig.** $211.0 mill.

**Pfd Stock** None

**Common Stock** 72,310,563 shs. as of 12/17/10
**MARKET CAP: $2.1 billion (Mid Cap)**

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1107.9 | 832.0 | 1220.8 | 1529.7 | 1761.1 | 1924.6 | 1711.3 | 2089.1 | 1638.1 | 1552.3 | *1600* | *1650* | Revenues ($mill) A | *1805* |
| 65.5 | 62.2 | 74.4 | 95.2 | 101.3 | 97.2 | 104.4 | 110.0 | 122.8 | 111.8 | *115* | *120* | Net Profit ($mill) | *130* |
| 34.6% | 33.1% | 34.8% | 35.1% | 33.7% | 34.2% | 33.0% | 36.3% | 28.5% | 23.4% | *30.0%* | *30.0%* | Income Tax Rate | *30.0%* |
| 5.9% | 7.5% | 6.1% | 6.2% | 5.8% | 5.0% | 6.1% | 5.3% | 7.5% | 7.2% | *7.2%* | *7.3%* | Net Profit Margin | *7.3%* |
| 47.6% | 43.9% | 42.2% | 43.6% | 41.4% | 48.3% | 48.4% | 47.2% | 44.1% | 41.0% | *42.0%* | *41.0%* | Long-Term Debt Ratio | *40.5%* |
| 52.4% | 56.1% | 57.8% | 56.4% | 58.6% | 51.7% | 51.6% | 52.8% | 55.9% | 59.0% | *58.0%* | *59.0%* | Common Equity Ratio | *59.5%* |
| 1069.4 | 1051.6 | 1090.2 | 1514.9 | 1509.2 | 1707.9 | 1703.3 | 1681.5 | 1660.5 | 1636.9 | *1675* | *1700* | Total Capital ($mill) | *1725* |
| 1114.7 | 1158.5 | 1812.3 | 1849.8 | 1939.1 | 2075.3 | 2141.5 | 2240.8 | 2304.4 | 2437.7 | *2450* | *2500* | Net Plant ($mill) | *2650* |
| 7.9% | 7.8% | 8.6% | 7.8% | 8.2% | 7.2% | 7.8% | 8.2% | 9.1% | 8.4% | *8.0%* | *8.5%* | Return on Total Cap'l | *9.0%* |
| 11.7% | 10.6% | 11.8% | 11.1% | 11.5% | 11.0% | 11.9% | 12.4% | 13.2% | 11.6% | *12.0%* | *12.0%* | Return on Shr. Equity | *12.5%* |
| 11.7% | 10.6% | 11.8% | 11.1% | 11.5% | 11.0% | 11.9% | 12.4% | 13.2% | 11.6% | *12.0%* | *12.0%* | Return on Com Equity | *12.5%* |
| 3.0% | 1.7% | 3.1% | 3.7% | 3.6% | 2.8% | 3.5% | 3.9% | 4.8% | 3.3% | *3.5%* | *3.5%* | Retained to Com Eq | *4.0%* |
| 75% | 83% | 74% | 66% | 68% | 74% | 70% | 69% | 64% | 72% | *72%* | *70%* | All Div'ds to Net Prof | *68%* |

| CURRENT POSITION ($MILL.) | 2008 | 2009 | 10/31/10 |
|---|---|---|---|
| Cash Assets | 7.0 | 7.6 | 5.6 |
| Other | 593.8 | 505.6 | 322.2 |
| Current Assets | 600.8 | 513.2 | 327.8 |
| Accts Payable | 132.3 | 115.4 | 115.7 |
| Debt Due | 436.5 | 366.0 | 302.0 |
| Other | 112.7 | 118.8 | 80.9 |
| Current Liab. | 681.5 | 600.2 | 498.6 |
| Fix. Chg. Cov. | 341% | 316% | 316% |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 7.0% | 3.5% | *1.5%* |
| "Cash Flow" | 5.5% | 5.0% | *3.0%* |
| Earnings | 5.0% | 5.0% | *3.5%* |
| Dividends | 4.5% | 4.5% | *3.5%* |
| Book Value | 5.0% | 3.5% | *3.0%* |

| Fiscal Year Ends | QUARTERLY REVENUES ($ mill.) A Jan.31 | Apr.30 | Jul.31 | Oct.31 | Full Fiscal Year |
|---|---|---|---|---|---|
| 2008 | 788.5 | 634.2 | 354.7 | 311.7 | 2089.1 |
| 2009 | 779.6 | 455.4 | 180.3 | 222.8 | 1638.1 |
| 2010 | 673.7 | 472.9 | 211.6 | 194.1 | 1552.3 |
| 2011 | *690* | *485* | *220* | *205* | *1600* |
| 2012 | *705* | *495* | *235* | *215* | *1650* |

| Fiscal Year Ends | EARNINGS PER SHARE A B Jan.31 | Apr.30 | Jul.31 | Oct.31 | Full Fiscal Year |
|---|---|---|---|---|---|
| 2008 | 1.12 | .66 | d.10 | d.18 | 1.49 |
| 2009 | 1.10 | .73 | d.10 | d.06 | 1.67 |
| 2010 | 1.14 | .65 | d.13 | d.13 | 1.55 |
| 2011 | *1.15* | *.66* | *d.09* | *d.12* | *1.60* |
| 2012 | *1.17* | *.69* | *d.06* | *d.10* | *1.70* |

| Cal-endar | QUARTERLY DIVIDENDS PAID C■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .24 | .25 | .25 | .25 | .99 |
| 2008 | .25 | .26 | .26 | .26 | 1.03 |
| 2009 | .26 | .27 | .27 | .27 | 1.07 |
| 2010 | .27 | .28 | .28 | .28 | 1.11 |
| 2011 | .28 | | | | |

**BUSINESS:** Piedmont Natural Gas Company is primarily a regulated natural gas distributor, serving over 960,801 customers in North Carolina, South Carolina, and Tennessee. 2010 revenue mix: residential (48%), commercial (28%), industrial (7%), other (17%). Principal suppliers: Transco and Tennessee Pipeline. Gas costs: 64.4% of revenues. '10 deprec. rate: 3.2%. Estimated plant age: 9.3 years. Non-regulated operations: sale of gas-powered heating equipment; natural gas brokering; propane sales. Has about 1,821 employees. Off./dir. own about 1.5% of common stock, State Street; 6.4% (1/10 proxy). Chrmn., CEO, & Pres.: Thomas E. Skains. Inc.: NC. Addr.: 4720 Piedmont Row Drive, Charlotte, NC 28210. Telephone: 704-364-3120. Internet: www.piedmontng.com.

**Piedmont Natural Gas likely posted fiscal first-quarter (ended January 31st) earnings in line with last year's.** *(Note: The company was scheduled to release financial data shortly after this review went to press.)* Customer additions in North Carolina, South Carolina, and Tennessee ought to have helped offset the effects of lower natural gas pricing, which impacted the top line all last year. Consequently, revenues should register an advance of about 2.5% for the January interim. And share net probably increased by a penny.

**We have trimmed our top-line estimate for 2011.** This is largely a reflection of the challenging economic conditions in the company's market area. Nonetheless, lower interest expenses due to debt refinancing, as well as the increased customer base should act favorably on margins causing the bottom line to register a low single-digit advance.

**Large capital investments this year augur well for prospects.** The company has plans for multiple gas-fired power generation sites in its pipeline to serve its customer base in North Carolina.

**The overall financial position is in good shape.** Cash declined about 25% over the course of last year, to roughly $5.6 million. Meanwhile, the company's debt load also decreased 8.5%, to approximately $670 million. Too, PNY has been taking advantage of the favorable interest-rate environment by refinancing some of its higher-yielding notes. This should help to improve the company's operating metrics. And, Piedmont used the proceeds from last year's Southstar divestiture to repurchase about a million shares of stock, providing a benefit to share net moving forward.

**We have introduced our 2012 share-net estimate at $1.70.** Continued customer additions and somewhat better prospects for regional economic growth ought to contribute to the quickening pace of earnings advances next year.

**Good-quality shares of Piedmont have appeal as an income vehicle.** However, total return potential for the pull to 2014-2016 is below average. And the stock is still ranked to lag the broader-market averages in the coming year.

*Bryan J. Fong* *March 11, 2011*

(A) Fiscal year ends October 31st.
(B) Diluted earnings. Excl. extraordinary item: '00, 8¢. Excl. nonrecurring gains (losses): '97, (2¢); '10, 41¢. Next earnings report due early May. Quarters may not add to total due to change in shares outstanding.
(C) Dividends historically paid mid-January, April, July, October.
■ Div'd reinvest. plan available; 5% discount.
(D) Includes deferred charges. In 2010: $14.8 million, 21¢/share.
(E) In millions, adjusted for stock split.

| | |
|---|---|
| Company's Financial Strength | B++ |
| Stock's Price Stability | 100 |
| Price Growth Persistence | 60 |
| Earnings Predictability | 95 |

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# SOUTH JERSEY INDS. NYSE-SJI

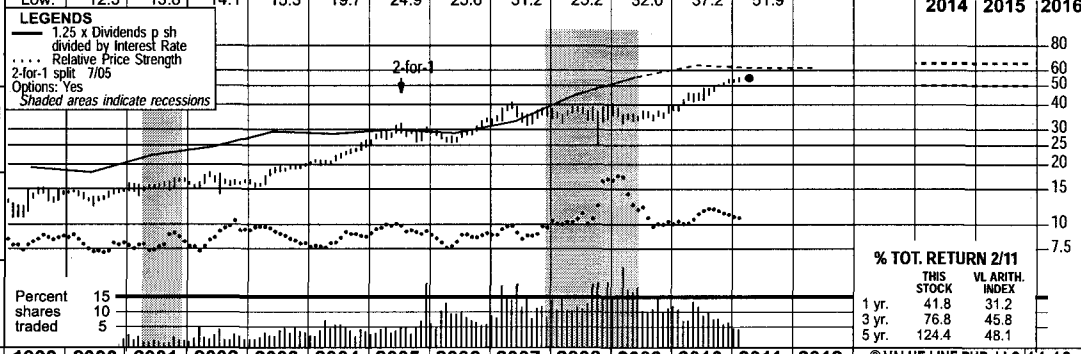
RECENT PRICE **54.79** | P/E RATIO **19.1** (Trailing: 20.3 / Median: 14.0) | RELATIVE P/E RATIO **1.17** | DIV'D YLD **2.7%** | VALUE LINE

**TIMELINESS** 3 Lowered 10/15/10
**SAFETY** 2 Lowered 1/4/91
**TECHNICAL** 4 Lowered 2/25/11
**BETA** .65 (1.00 = Market)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 15.1 | 17.0 | 18.3 | 20.3 | 26.5 | 32.4 | 34.3 | 41.3 | 40.6 | 40.8 | 54.2 | 55.7 |
| Low: | 12.3 | 13.8 | 14.1 | 15.3 | 19.7 | 24.9 | 25.6 | 31.2 | 25.2 | 32.0 | 37.2 | 51.9 |

**Target Price Range** 2014 | 2015 | 2016

LEGENDS
— 1.25 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 7/05
Options: Yes
*Shaded areas indicate recessions*




**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 65 | (20%) | 7% |
| Low | 50 | (-10%) | 1% |

**Insider Decisions**

| | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Options | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| to Sell | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 |

**Institutional Decisions**

| | 1Q2010 | 2Q2010 | 3Q2010 |
|---|---|---|---|
| to Buy | 60 | 57 | 60 |
| to Sell | 69 | 69 | 50 |
| Hld's(000) | 17455 | 17649 | 18334 |

**% TOT. RETURN 2/11**

| | THIS STOCK | VL ARITH. INDEX |
|---|---|---|
| 1 yr. | 41.8 | 31.2 |
| 3 yr. | 76.8 | 45.8 |
| 5 yr. | 124.4 | 48.1 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16.50 | 16.52 | 16.18 | 20.89 | 17.60 | 22.43 | 35.30 | 20.69 | 26.34 | 29.51 | 31.78 | 31.76 | 32.30 | 32.36 | 28.37 | 30.97 | *31.60* | *33.15* | Revenues per sh | *39.70* |
| 1.65 | 1.54 | 1.60 | 1.44 | 1.84 | 1.95 | 1.90 | 2.12 | 2.24 | 2.44 | 2.51 | 3.51 | 3.20 | 3.48 | 3.72 | *4.21* | *4.50* | *5.00* | "Cash Flow" per sh | *6.20* |
| .83 | .85 | .86 | .64 | 1.01 | 1.08 | 1.15 | 1.22 | 1.37 | 1.58 | 1.71 | 2.46 | 2.09 | 2.27 | 2.38 | 2.70 | *2.95* | *3.25* | Earnings per sh A | *4.10* |
| .72 | .72 | .72 | .72 | .72 | .73 | .74 | .75 | .78 | .82 | .86 | .92 | 1.01 | 1.11 | 1.22 | 1.36 | *1.48* | *1.60* | Div'ds Decl'd per sh B ■ | *2.00* |
| 2.08 | 2.01 | 2.30 | 3.06 | 2.19 | 2.21 | 2.82 | 3.47 | 2.36 | 2.67 | 3.21 | 2.51 | 1.88 | 2.08 | 3.67 | 5.59 | *5.65* | *5.95* | Cap'l Spending per sh | *7.35* |
| 7.34 | 8.03 | 6.43 | 6.23 | 6.74 | 7.25 | 7.81 | 9.67 | 11.26 | 12.41 | 13.50 | 15.11 | 16.25 | 17.33 | 18.24 | 19.08 | *19.70* | *20.00* | Book Value per sh C | *23.55* |
| 21.44 | 21.51 | 21.54 | 21.56 | 22.30 | 23.00 | 23.72 | 24.41 | 26.46 | 27.76 | 28.98 | 29.33 | 29.61 | 29.73 | 29.80 | 29.87 | *31.00* | *32.00* | Common Shs Outst'g D | *34.00* |
| 12.2 | 13.3 | 13.8 | 21.2 | 13.3 | 13.0 | 13.6 | 13.5 | 13.3 | 14.1 | 16.6 | 11.9 | 17.2 | 15.9 | 15.0 | 16.8 | *Bold figures are* | | Avg Ann'l P/E Ratio | *14.0* |
| .82 | .83 | .80 | 1.10 | .76 | .85 | .70 | .74 | .76 | .74 | .88 | .64 | .91 | .96 | 1.00 | 1.06 | *Value Line* | | Relative P/E Ratio | *.95* |
| 7.2% | 6.4% | 6.1% | 5.3% | 5.4% | 5.2% | 4.7% | 4.6% | 4.3% | 3.7% | 3.0% | 3.2% | 2.8% | 3.1% | 3.4% | 3.0% | *estimates* | | Avg Ann'l Div'd Yield | *3.5%* |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 837.3 | 505.1 | 696.8 | 819.1 | 921.0 | 931.4 | 956.4 | 962.0 | 845.4 | 925.1 | *980* | *1060* | Revenues ($mill) | *1350* |
| 26.8 | 29.4 | 34.6 | 43.0 | 48.6 | 72.0 | 61.8 | 67.7 | 71.3 | 80.9 | *90.0* | *105* | Net Profit ($mill) | *140* |
| 42.2% | 41.4% | 40.6% | 40.9% | 41.5% | 41.3% | 41.9% | 47.7% | 23.0% | *30.0%* | *35.0%* | *35.0%* | Income Tax Rate | *35.0%* |
| 3.2% | 5.8% | 5.0% | 5.2% | 5.3% | 7.7% | 6.5% | 7.0% | 8.4% | 8.7% | *9.2%* | *9.9%* | Net Profit Margin | *10.4%* |
| 57.0% | 53.6% | 50.8% | 48.7% | 44.9% | 44.7% | 42.7% | 39.2% | 36.5% | 37.4% | *38.0%* | *38.5%* | Long-Term Debt Ratio | *40.5%* |
| 35.9% | 46.1% | 49.0% | 51.0% | 55.1% | 55.3% | 57.3% | 60.8% | 63.5% | 62.6% | *62.0%* | *61.5%* | Common Equity Ratio | *59.5%* |
| 516.2 | 512.5 | 608.4 | 675.0 | 710.3 | 801.1 | 839.0 | 848.0 | 856.4 | 910.1 | *985* | *1040* | Total Capital ($mill) | *1350* |
| 607.0 | 666.6 | 748.3 | 799.9 | 877.3 | 920.0 | 948.9 | 982.6 | 1073.1 | 1193.3 | *1250* | *1325* | Net Plant ($mill) | *1500* |
| 6.9% | 7.6% | 7.3% | 7.9% | 8.3% | 10.1% | 8.6% | 8.9% | 9.0% | 10.1% | *10.5%* | *11.5%* | Return on Total Cap'l | *12.0%* |
| 12.1% | 12.4% | 11.5% | 12.4% | 12.4% | 16.3% | 12.8% | 13.1% | 13.1% | 14.2% | *15.0%* | *16.5%* | Return on Shr. Equity | *17.5%* |
| 12.8% | 12.5% | 11.6% | 12.5% | 12.4% | 16.3% | 12.8% | 13.1% | 13.1% | 14.2% | *15.0%* | *16.5%* | Return on Com Equity | *17.5%* |
| 3.5% | 4.7% | 5.0% | 5.9% | 6.2% | 10.2% | 6.7% | 6.7% | 6.4% | 7.1% | *7.0%* | *8.5%* | Retained to Com Eq | *9.0%* |
| 76% | 62% | 57% | 52% | 50% | 37% | 48% | 49% | 51% | 50% | *51%* | *49%* | All Div'ds to Net Prof | *49%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $702.1 mill. **Due in 5 Yrs** $427.7 mill.
**LT Debt** $340.0 mill. **LT Interest** $22.0 mill.
(Total interest coverage: 3.1x)

**Pension Assets-12/10** $120.6 mill. **Oblig.** $167.5 mill.

**Pfd Stock** None

**Common Stock** 29,883,823 common shs. **as of 2/21/11**

**MARKET CAP: $1.6 billion (Mid Cap)**

| CURRENT POSITION ($MILL.) | 2008 | 2009 | 12/31/10 |
|---|---|---|---|
| Cash Assets | 5.8 | 3.8 | 2.4 |
| Other | 429.3 | 364.6 | 421.4 |
| Current Assets | 435.1 | 368.4 | 423.8 |
| Accts Payable | 120.2 | 123.9 | 165.2 |
| Debt Due | 237.6 | 231.7 | 362.1 |
| Other | 142.1 | 123.2 | 113.2 |
| Current Liab. | 499.9 | 478.8 | 640.5 |
| Fix. Chg. Cov. | 598% | 585% | 532% |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 5.5% | 4.0% | *4.5%* |
| "Cash Flow" | 8.0% | 9.0% | *8.5%* |
| Earnings | 10.5% | 10.0% | *9.0%* |
| Dividends | 4.5% | 7.5% | *8.5%* |
| Book Value | 10.5% | 9.0% | *4.5%* |

| Cal-endar | QUARTERLY REVENUES ($ mill.) Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 348.1 | 135.8 | 210.4 | 267.7 | 962.0 |
| 2009 | 362.2 | 134.5 | 127.1 | 221.6 | 845.4 |
| 2010 | 329.3 | 151.6 | 160.7 | 283.5 | 925.1 |
| 2011 | *370* | *160* | *165* | *285* | *980* |
| 2012 | *400* | *175* | *180* | *305* | *1060* |

| Cal-endar | EARNINGS PER SHARE A Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 1.32 | .26 | .04 | .67 | 2.27 |
| 2009 | 1.46 | .15 | d.06 | .83 | 2.38 |
| 2010 | 1.49 | .24 | .10 | .87 | 2.70 |
| 2011 | *1.55* | *.30* | *.15* | *.95* | *2.95* |
| 2012 | *1.65* | *.35* | *.20* | *1.05* | *3.25* |

| Cal-endar | QUARTERLY DIVIDENDS PAID B ■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | -- | .245 | .245 | .515 | 1.01 |
| 2008 | -- | .270 | .270 | .568 | 1.11 |
| 2009 | -- | .298 | .298 | .628 | 1.22 |
| 2010 | -- | .330 | .330 | .695 | 1.36 |
| 2011 | -- | | | | |

**BUSINESS:** South Jersey Industries, Inc. is a holding company. Its subsidiary, South Jersey Gas Co., distributes natural gas to 347,725 customers in New Jersey's southern counties, which covers about 2,500 square miles and includes Atlantic City. Gas revenue mix '10: residential, 44%; commercial, 21%; cogeneration and electric generation, 12%; industrial, 23%. Non-utility operations include: South Jersey Energy, South Jersey Resources Group, Marina Energy, and South Jersey Energy Service Plus. Has 650 employees. Off./dir. control 1.0% of common shares; Black Rock Inc., 8.2% (3/10 proxy). Chrmn. & CEO: Edward Graham. Incorp.: NJ. Address: 1 South Jersey Plaza, Folsom, NJ 08037. Telephone: 609-561-9000. Internet: www.sjindustries.com.

**Shares of South Jersey Industries have advanced nicely over the past 12 months**, as the company has reported favorable bottom-line comparisons in recent quarters. Solid growth from the utility business and the retail energy unit more than offset weakness in the wholesale energy segment. Looking forward,

**Healthy results will probably continue at the utility operations.** South Jersey Gas should continue to benefit from modest customer growth, despite softness in the housing construction market. Natural gas remains the fuel of choice within the utility's service territory. Moreover, SJG continues to benefit from customer interest in converting from other fuel sources to natural gas. In addition, rate relief should serve to offset growth in operating expenses. The utility recently filed a proposal with the New Jersey Board of Public Utilities for another capital investment recovery tracker. Discussions with the regulatory board on this matter are ongoing. If granted, this would allow South Jersey Gas to recover costs associated with capital improvements.

**We remain optimistic about the company's retail energy operations**, which should continue to benefit from demand for renewable projects. That said, the upstream wholesale energy business may continue to experience thin storage margins. Nevertheless, efforts by this unit to expand marketing activities in the Marcellus Shale should provide the company with competitively priced gas for its asset management business. Overall, we anticipate a nice advance in revenues and share earnings for South Jersey Industries for full-year 2011. Growth will probably continue in 2012.

**These shares are ranked to track the broader market for the coming six to 12 months.** Looking farther out, we anticipate steady growth in revenues and share earnings for the company over the pull to 2014-2016. The stock earns favorable marks for Price Stability and Earnings Predictability. However, this seems to be partly reflected in the current quotation, and total return potential for the coming years appears limited. Thus, investors can probably find more-attractive choices elsewhere.

*Michael Napoli, CFA* *March 11, 2011*

(A) Based on GAAP egs. through 2006, economic egs. thereafter. GAAP EPS: '07, $2.10; '08, $2.58; '09, $1.94; '10, $2.22. Excl. nonrecur. gain (loss): '01, $0.13; '08, $0.31; '09, ($0.44); '10, ($0.48). Excl gain (losses) from discont. ops.: '01, ($0.02); '02, ($0.04); '03, ($0.09); '05, ($0.02); '06, ($0.02); '07, $0.01. Egs. may not sum due to rounding. Next egs. report due in May. (B) Div'ds paid early April, July, Oct., and late Dec. ■ Div. reinvest. plan avail. (C) Incl. reg. assets. In 2010: $248.4 mill., $8.32 per shr. (D) In mill., adj. for split.

| | |
|---|---|
| Company's Financial Strength | B++ |
| Stock's Price Stability | 100 |
| Price Growth Persistence | 90 |
| Earnings Predictability | 85 |

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# SOUTHWEST GAS NYSE-SWX

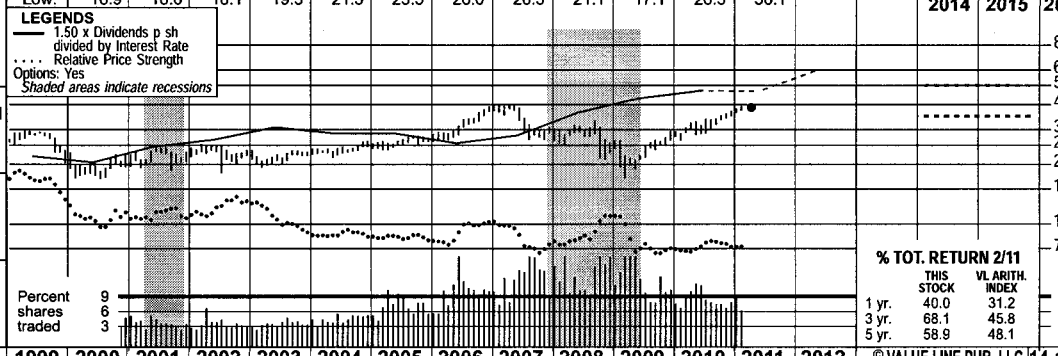
RECENT PRICE **38.71** | P/E RATIO **17.0** (Trailing: 17.1 / Median: 18.0) | RELATIVE P/E RATIO **1.04** | DIV'D YLD **2.7%** | VALUE LINE

**TIMELINESS** 3 Lowered 8/20/10
**SAFETY** 3 Lowered 1/4/91
**TECHNICAL** 4 Lowered 2/25/11
**BETA** .75 (1.00 = Market)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 23.0 | 24.7 | 25.3 | 23.6 | 26.2 | 28.1 | 39.4 | 39.9 | 33.3 | 29.5 | 37.3 | 39.5 |
| Low: | 16.9 | 18.6 | 18.1 | 19.3 | 21.5 | 23.5 | 26.0 | 26.5 | 21.1 | 17.1 | 26.3 | 36.1 |

**Target Price Range** 2014 | 2015 | 2016

**LEGENDS**
— 1.50 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
*Shaded areas indicate recessions*




**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 50 | (+30%) | 9% |
| Low | 35 | (-10%) | 1% |

**Insider Decisions**

| | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 |
| Options | 1 | 1 | 1 | 0 | 0 | 4 | 0 | 2 | 3 |
| to Sell | 1 | 1 | 2 | 0 | 0 | 4 | 0 | 3 | 3 |

**Institutional Decisions**

| | 1Q2010 | 2Q2010 | 3Q2010 |
|---|---|---|---|
| to Buy | 65 | 61 | 57 |
| to Sell | 72 | 80 | 76 |
| Hld's(000) | 33164 | 32977 | 32794 |

**% TOT. RETURN 2/11**

| | THIS STOCK | VL ARITH. INDEX |
|---|---|---|
| 1 yr. | 40.0 | 31.2 |
| 3 yr. | 68.1 | 45.8 |
| 5 yr. | 58.9 | 48.1 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23.03 | 24.09 | 26.73 | 30.17 | 30.24 | 32.61 | 42.98 | 39.68 | 35.96 | 40.14 | 43.59 | 48.47 | 50.28 | 48.53 | 42.00 | 40.14 | *40.30* | *40.65* | Revenues per sh | *54.00* |
| 2.65 | 3.00 | 3.85 | 4.48 | 4.45 | 4.57 | 4.79 | 5.07 | 5.11 | 5.57 | 5.20 | 5.97 | 6.21 | 5.76 | 6.16 | 6.45 | *6.75* | *6.95* | "Cash Flow" per sh | *7.90* |
| .10 | .25 | .77 | 1.65 | 1.27 | 1.21 | 1.15 | 1.16 | 1.13 | 1.66 | 1.25 | 1.98 | 1.95 | 1.39 | 1.94 | 2.27 | *2.30* | *2.45* | Earnings per sh A | *2.90* |
| .82 | .82 | .82 | .82 | .82 | .82 | .82 | .82 | .82 | .82 | .82 | .82 | .86 | .90 | .95 | 1.00 | *1.05* | *1.10* | Div'ds Decl'd per sh B■† | *1.25* |
| 6.79 | 8.19 | 6.19 | 6.40 | 7.41 | 7.04 | 8.17 | 8.50 | 7.03 | 8.23 | 7.49 | 8.27 | 7.96 | 6.79 | 4.81 | 4.72 | *4.85* | *5.00* | Cap'l Spending per sh | *6.00* |
| 14.55 | 14.20 | 14.09 | 15.67 | 16.31 | 16.82 | 17.27 | 17.91 | 18.42 | 19.18 | 19.10 | 21.58 | 22.98 | 23.49 | 24.44 | 25.59 | *25.80* | *27.10* | Book Value per sh | *32.00* |
| 24.47 | 26.73 | 27.39 | 30.41 | 30.99 | 31.71 | 32.49 | 33.29 | 34.23 | 36.79 | 39.33 | 41.77 | 42.81 | 44.19 | 45.09 | 45.60 | *46.50* | *48.00* | Common Shs Outst'g C | *50.00* |
| NMF | 69.3 | 24.1 | 13.2 | 21.1 | 16.0 | 19.0 | 19.9 | 19.2 | 14.3 | 20.6 | 15.9 | 17.3 | 20.3 | 12.2 | 14.0 | *Bold figures are* | | Avg Ann'l P/E Ratio | *15.0* |
| NMF | 4.34 | 1.39 | .69 | 1.20 | 1.04 | .97 | 1.09 | 1.09 | .76 | 1.10 | .86 | .92 | 1.22 | .81 | .89 | *Value Line* | | Relative P/E Ratio | *1.00* |
| 5.4% | 4.7% | 4.4% | 3.8% | 3.1% | 4.2% | 3.8% | 3.6% | 3.8% | 3.5% | 3.2% | 2.6% | 2.6% | 3.2% | 4.0% | 3.2% | *estimates* | | Avg Ann'l Div'd Yield | *2.9%* |
| | | | | | | 1396.7 | 1320.9 | 1231.0 | 1477.1 | 1714.3 | 2024.7 | 2152.1 | 2144.7 | 1893.8 | 1830.4 | *1875* | *1950* | Revenues ($mill) | *2700* |
| | | | | | | 37.2 | 38.6 | 38.5 | 58.9 | 48.1 | 80.5 | 83.2 | 61.0 | 87.5 | 104.0 | *110* | *120* | Net Profit ($mill) | *145* |
| | | | | | | 34.5% | 32.8% | 30.5% | 34.8% | 29.7% | 37.3% | 36.5% | 40.1% | 34.0% | 34.7% | *35.0%* | *35.0%* | Income Tax Rate | *35.0%* |
| | | | | | | 2.7% | 2.9% | 3.1% | 4.0% | 2.8% | 4.0% | 3.9% | 2.8% | 4.6% | 5.7% | *5.8%* | *6.0%* | Net Profit Margin | *5.4%* |
| | | | | | | 56.2% | 62.5% | 66.0% | 64.2% | 63.8% | 60.6% | 58.1% | 55.3% | 53.5% | 49.1% | *49.0%* | *48.0%* | Long-Term Debt Ratio | *46.5%* |
| | | | | | | 39.6% | 34.1% | 34.0% | 35.8% | 36.2% | 39.4% | 41.9% | 44.7% | 46.5% | 50.9% | *51.0%* | *52.0%* | Common Equity Ratio | *53.5%* |
| | | | | | | 1417.6 | 1748.3 | 1851.6 | 1968.6 | 2076.0 | 2287.8 | 2349.7 | 2323.3 | 2371.4 | 2292.0 | *2350* | *2500* | Total Capital ($mill) | *3000* |
| | | | | | | 1825.6 | 1979.5 | 2175.7 | 2336.0 | 2489.1 | 2668.1 | 2845.3 | 2983.3 | 3034.5 | 3072.4 | *3150* | *3250* | Net Plant ($mill) | *3600* |
| | | | | | | 5.1% | 4.3% | 4.2% | 5.0% | 4.3% | 5.5% | 5.5% | 4.5% | 5.4% | 6.2% | *6.5%* | *6.5%* | Return on Total Cap'l | *6.5%* |
| | | | | | | 6.0% | 5.9% | 6.1% | 8.3% | 6.4% | 8.9% | 8.5% | 5.9% | 7.9% | 8.9% | *9.0%* | *9.0%* | Return on Shr. Equity | *9.0%* |
| | | | | | | 6.6% | 6.5% | 6.1% | 8.3% | 6.4% | 8.9% | 8.5% | 5.9% | 7.9% | 8.9% | *9.0%* | *9.0%* | Return on Com Equity | *9.0%* |
| | | | | | | 1.9% | 1.9% | 1.7% | 4.3% | 2.2% | 5.2% | 4.8% | 2.1% | 4.1% | 5.0% | *5.0%* | *5.0%* | Retained to Com Eq | *5.5%* |
| | | | | | | 71% | 70% | 72% | 49% | 65% | 42% | 44% | 63% | 48% | 44% | *45%* | *45%* | All Div'ds to Net Prof | *43%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $1199.8 mill. **Due in 5 Yrs** $275.0 mill.
**LT Debt** $1124.7 mill. **LT Interest** $80.0 mill.
(Total interest coverage: 3.0x)
**Leases, Uncapitalized** Annual rentals $5.0 mill.
**Pension Assets-12/10** $505.6 mill. **Oblig.** $708.9 mill.

**Pfd Stock** None

**Common Stock** 45,784,435 shs. as of 2/15/11

**MARKET CAP: $1.8 billion (Mid Cap)**

| CURRENT POSITION ($MILL.) | 2008 | 2009 | 12/31/10 |
|---|---|---|---|
| Cash Assets | 26.4 | 65.3 | 116.1 |
| Other | 411.7 | 352.3 | 329.8 |
| Current Assets | 438.1 | 417.6 | 445.9 |
| Accts Payable | 191.4 | 158.9 | 165.5 |
| Debt Due | 62.8 | 1.3 | 75.1 |
| Other | 255.7 | 314.0 | 356.4 |
| Current Liab. | 509.9 | 474.2 | 597.0 |
| Fix. Chg. Cov. | 224% | 251% | 299% |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 5.0% | 4.0% | *3.5%* |
| "Cash Flow" | 3.5% | 3.0% | *4.5%* |
| Earnings | 3.5% | 6.0% | *7.5%* |
| Dividends | 1.0% | 2.0% | *4.5%* |
| Book Value | 4.5% | 5.0% | *4.5%* |

| Cal-endar | QUARTERLY REVENUES ($ mill.) Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 813.6 | 447.3 | 374.4 | 509.4 | 2144.7 |
| 2009 | 689.9 | 387.6 | 317.5 | 498.8 | 1893.8 |
| 2010 | 668.8 | 385.8 | 307.7 | 468.1 | 1830.4 |
| 2011 | *680* | *395* | *315* | *485* | *1875* |
| 2012 | *700* | *410* | *325* | *515* | *1950* |

| Cal-endar | EARNINGS PER SHARE A Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2008 | 1.14 | d.06 | d.38 | .71 | 1.39 |
| 2009 | 1.12 | d.01 | d.18 | 1.01 | 1.94 |
| 2010 | 1.42 | d.02 | d.11 | .98 | 2.27 |
| 2011 | *1.40* | *Nil* | *d.10* | *1.00* | *2.30* |
| 2012 | *1.45* | *Nil* | *d.10* | *1.10* | *2.45* |

| Cal-endar | QUARTERLY DIVIDENDS PAID B■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .205 | .215 | .215 | .215 | .85 |
| 2008 | .215 | .225 | .225 | .225 | .89 |
| 2009 | .225 | .238 | .238 | .238 | .94 |
| 2010 | .238 | .250 | .250 | .250 | .99 |
| 2011 | .250 | .265 | | | |

**BUSINESS:** Southwest Gas Corporation is a regulated gas distributor serving approximately 1.8 million customers in sections of Arizona, Nevada, and California. Comprised of two business segments: natural gas operations and construction services. 2010 margin mix: residential and small commercial, 86%; large commercial and industrial, 4%; transportation, 10%. Total throughput: 2.2 billion therms. Sold PriMerit Bank, 7/96. Has 4,802 employees. Off. & Dir. own 2.0% of common stock; BlackRock Inc., 9.1%; GAMCO Investors, Inc, 6.8%; T. Rowe Price Associates, Inc., 6.0% (3/10 Proxy). Chairman: James J. Kropid. CEO: Jeffrey W. Shaw. Inc.: CA. Address: 5241 Spring Mountain Road, Las Vegas, Nevada 89193. Telephone: 702-876-7237. Internet: www.swgas.com.

**Shares of Southwest Gas have advanced nicely over the past 12 months,** as the company reported a strong bottom-line improvement for 2010. Healthy performance will likely continue, though comparisons should prove somewhat less impressive, given the strong results earned in the first and fourth quarters of 2010. The utility segment should further benefit from higher rates, though temperature fluctuations will also affect performance, one way or another. Further success at procuring infrastructure maintenance and replacement work may boost results at the company's construction services subsidiary. Moreover, efforts to improve efficiency ought to keep operating costs in check. Overall, we anticipate a modest advance in revenues and share earnings for Southwest in full-year 2011. Decent customer growth and a more favorable operating climate may well drive earnings higher in 2012.

**Rate relief should continue to help margins.** The company has filed a general rate case in Arizona, requesting an increase in revenues of $73 million. Southwest is also seeking a decoupled rate structure and several programs promoting energy efficiency. The focus on higher rates and improved rate design in its service territories is important, as the company depends upon such approved revenue increases to help it cope with higher costs.

**Southwest has increased the dividend by 6%.** Starting with the May payout, the quarterly dividend is now $0.265 per share. The company cited improved performance and a stronger capital structure as reasons for the hike. Moderate dividend growth should continue going forward.

**The stock is not without risk.** The company should incur greater operating expenses as it continues to expand in the coming years. Utility performance could be hurt by unfavorable temperature variations or insufficient rate relief.

**We anticipate higher revenues and share earnings for the company in the coming years.** But total return potential is unimpressive from the present quotation. Moreover, Southwest's dividend yield is below average for its industry group. Thus, investors can probably find more-attractive opportunities elsewhere.

*Michael Napoli, CFA* *March 11, 2011*

(A) Based on avg. shares outstand. thru. '96, then diluted. Excl. nonrec. gains (losses): '97, 16¢; '02, (10¢); '05, (11¢); '06, 7¢. Excl. loss from disc. ops.: '95, 75¢. Totals may not sum due to rounding. Next egs. report due late April/early May. (B) Dividends historically paid early March, June, September, December. ■† Div'd reinvestment and stock purchase plan avail. (C) In millions.

| | |
|---|---|
| Company's Financial Strength | B |
| Stock's Price Stability | 100 |
| Price Growth Persistence | 65 |
| Earnings Predictability | 70 |

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# WGL HOLDINGS NYSE-WGL

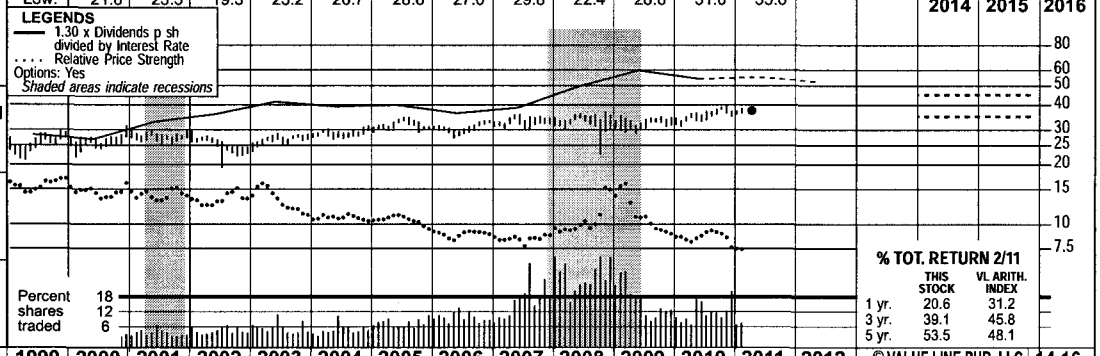
RECENT PRICE 37.49 | P/E RATIO 17.9 (Trailing: 16.3 Median: 15.0) | RELATIVE P/E RATIO 1.10 | DIV'D YLD 4.0% | VALUE LINE

TIMELINESS 3 Raised 12/10/10
SAFETY 1 Raised 4/2/93
TECHNICAL 4 Lowered 3/4/11
BETA .65 (1.00 = Market)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High: | 31.5 | 30.5 | 29.5 | 28.8 | 31.4 | 34.8 | 33.6 | 35.9 | 37.1 | 35.5 | 40.0 | 38.5 |
| Low: | 21.8 | 25.3 | 19.3 | 23.2 | 26.7 | 28.8 | 27.0 | 29.8 | 22.4 | 28.6 | 31.0 | 35.6 |

Target Price Range 2014 | 2015 | 2016

LEGENDS
— 1.30 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded areas indicate recessions



**2014-16 PROJECTIONS**

| | Price | Gain | Ann'l Total Return |
|---|---|---|---|
| High | 45 | (+20%) | 9% |
| Low | 35 | (-5%) | 3% |

**Insider Decisions**

| | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|
| to Buy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Options | 2 | 3 | 0 | 3 | 2 | 1 | 1 | 1 | 0 |
| to Sell | 2 | 6 | 0 | 4 | 4 | 1 | 1 | 2 | 0 |

**Institutional Decisions**

| | 1Q2010 | 2Q2010 | 3Q2010 |
|---|---|---|---|
| to Buy | 76 | 70 | 76 |
| to Sell | 83 | 83 | 76 |
| Hld's(000) | 27544 | 31974 | 32221 |

Percent shares traded 18 12 6

**% TOT. RETURN 2/11**

| | THIS STOCK | VL ARITH. INDEX |
|---|---|---|
| 1 yr. | 20.6 | 31.2 |
| 3 yr. | 39.1 | 45.8 |
| 5 yr. | 53.5 | 48.1 |

| 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | © VALUE LINE PUB. LLC | 14-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19.30 | 22.19 | 24.16 | 23.74 | 20.92 | 22.19 | 29.80 | 32.63 | 42.45 | 42.93 | 44.94 | 53.96 | 53.51 | 52.65 | 53.98 | 53.60 | *55.90* | *57.35* | Revenues per sh A | *59.70* |
| 2.51 | 2.93 | 3.02 | 2.79 | 2.74 | 3.20 | 3.24 | 2.63 | 4.00 | 3.87 | 3.97 | 3.84 | 3.89 | 4.34 | 4.44 | 4.11 | *3.95* | *4.30* | "Cash Flow" per sh | *4.60* |
| 1.45 | 1.85 | 1.85 | 1.54 | 1.47 | 1.79 | 1.88 | 1.14 | 2.30 | 1.98 | 2.13 | 1.94 | 2.09 | 2.44 | 2.53 | 2.27 | *2.10* | *2.35* | Earnings per sh B | *2.70* |
| 1.12 | 1.14 | 1.17 | 1.20 | 1.22 | 1.24 | 1.26 | 1.27 | 1.28 | 1.30 | 1.32 | 1.35 | 1.37 | 1.41 | 1.47 | 1.50 | *1.53* | *1.57* | Div'ds Decl'd per sh C■ | *1.68* |
| 2.63 | 2.85 | 3.20 | 3.62 | 3.42 | 2.67 | 2.68 | 3.34 | 2.65 | 2.33 | 2.32 | 3.27 | 3.33 | 2.70 | 2.77 | 2.57 | *2.45* | *2.45* | Cap'l Spending per sh | *2.40* |
| 11.95 | 12.79 | 13.48 | 13.86 | 14.72 | 15.31 | 16.24 | 15.78 | 16.25 | 16.95 | 17.80 | 18.86 | 19.83 | 20.99 | 21.89 | 22.82 | *23.55* | *24.20* | Book Value per sh D | *27.30* |
| 42.93 | 43.70 | 43.70 | 43.84 | 46.47 | 46.47 | 48.54 | 48.56 | 48.63 | 48.67 | 48.65 | 48.89 | 49.45 | 49.92 | 50.14 | 50.54 | *51.00* | *51.00* | Common Shs Outst'g E | *52.00* |
| 12.7 | 11.5 | 12.7 | 17.2 | 17.3 | 14.6 | 14.7 | 23.1 | 11.1 | 14.2 | 14.7 | 15.5 | 15.6 | 13.7 | 12.6 | 15.1 | *Bold figures are* | | Avg Ann'l P/E Ratio | *15.0* |
| .85 | .72 | .73 | .89 | .99 | .95 | .75 | 1.26 | .63 | .75 | .78 | .84 | .83 | .82 | .84 | .95 | *Value Line* | | Relative P/E Ratio | *1.00* |
| 6.1% | 5.4% | 5.0% | 4.5% | 4.8% | 4.8% | 4.6% | 4.8% | 5.0% | 4.6% | 4.2% | 4.5% | 4.2% | 4.2% | 4.6% | 4.4% | *estimates* | | Avg Ann'l Div'd Yield | *4.2%* |
| | | | | | | 1446.5 | 1584.8 | 2064.2 | 2089.6 | 2186.3 | 2637.9 | 2646.0 | 2628.2 | 2706.9 | 2708.9 | *2850* | *2925* | Revenues ($mill) A | *3105* |
| | | | | | | 89.9 | 55.7 | 112.3 | 98.0 | 104.8 | 96.0 | 102.9 | 122.9 | 128.7 | 115.0 | *110* | *120* | Net Profit ($mill) | *140* |
| | | | | | | 39.6% | 34.0% | 38.0% | 38.2% | 37.4% | 39.0% | 39.1% | 37.1% | 39.1% | 38.7% | *39.0%* | *39.0%* | Income Tax Rate | *39.0%* |
| | | | | | | 6.2% | 3.5% | 5.4% | 4.7% | 4.8% | 3.6% | 3.9% | 4.7% | 4.8% | 4.2% | *4.3%* | *4.3%* | Net Profit Margin | *4.5%* |
| | | | | | | 41.7% | 45.7% | 43.8% | 40.9% | 39.5% | 37.8% | 37.9% | 35.9% | 33.3% | 33.4% | *34.5%* | *34.0%* | Long-Term Debt Ratio | *32.5%* |
| | | | | | | 56.3% | 52.4% | 54.3% | 57.2% | 58.6% | 60.4% | 60.3% | 62.4% | 65.0% | 65.0% | *64.0%* | *64.5%* | Common Equity Ratio | *66.0%* |
| | | | | | | 1400.8 | 1462.5 | 1454.9 | 1443.6 | 1478.1 | 1526.1 | 1625.4 | 1679.5 | 1687.7 | 1774.4 | *1875* | *1915* | Total Capital ($mill) | *2150* |
| | | | | | | 1519.7 | 1606.8 | 1874.9 | 1915.6 | 1969.7 | 2067.9 | 2150.4 | 2208.3 | 2269.1 | 2346.2 | *2425* | *2510* | Net Plant ($mill) | *2775* |
| | | | | | | 7.9% | 5.3% | 9.1% | 8.2% | 8.5% | 7.6% | 7.6% | 8.5% | 8.8% | 7.6% | *7.0%* | *7.5%* | Return on Total Cap'l | *7.5%* |
| | | | | | | 11.0% | 7.0% | 13.7% | 11.5% | 11.7% | 10.1% | 10.2% | 11.4% | 11.4% | 9.7% | *9.0%* | *9.5%* | Return on Shr. Equity | *10.0%* |
| | | | | | | 11.2% | 7.2% | 14.0% | 11.7% | 12.0% | 10.3% | 10.4% | 11.6% | 11.6% | 9.9% | *9.0%* | *9.5%* | Return on Com Equity | *10.0%* |
| | | | | | | 3.8% | NMF | 6.2% | 4.1% | 4.6% | 3.2% | 3.5% | 5.0% | 5.0% | 3.3% | *2.5%* | *3.0%* | Retained to Com Eq | *3.5%* |
| | | | | | | 67% | 112% | 56% | 65% | 62% | 69% | 66% | 57% | 57% | 67% | *73%* | *67%* | All Div'ds to Net Prof | *63%* |

**CAPITAL STRUCTURE as of 12/31/10**
**Total Debt** $788.2 mill. **Due in 5 Yrs** $194.2 mill.
**LT Debt** $637.9 mill. **LT Interest** $39.4 mill.
(LT interest earned: 6.2x; total interest coverage: 5.7x)
**Pension Assets-9/10** $1,215.8 mill. **Oblig.** $678.1 mill.
**Preferred Stock** $28.2 mill. **Pfd. Div'd** $1.3 mill.

**Common Stock** 51,127,081 shs. as of 1/31/11

**MARKET CAP: $1.9 billion (Mid Cap)**

| CURRENT POSITION ($MILL.) | 2009 | 2010 | 12/31/10 |
|---|---|---|---|
| Cash Assets | 7.9 | 8.9 | 16.6 |
| Other | 675.6 | 708.4 | 1008.4 |
| Current Assets | 683.5 | 717.3 | 1025.0 |
| Accts Payable | 213.5 | 225.4 | 356.0 |
| Debt Due | 266.5 | 130.5 | 150.3 |
| Other | 154.6 | 188.2 | 281.0 |
| Current Liab. | 634.6 | 544.1 | 787.3 |
| Fix. Chg. Cov. | 533% | 535% | 535% |

| ANNUAL RATES of change (per sh) | Past 10 Yrs. | Past 5 Yrs. | Est'd '08-'10 to '14-'16 |
|---|---|---|---|
| Revenues | 9.0% | 4.0% | *2.0%* |
| "Cash Flow" | 4.0% | 1.5% | *1.0%* |
| Earnings | 4.0% | 2.5% | *1.5%* |
| Dividends | 2.0% | 2.5% | *2.5%* |
| Book Value | 4.0% | 5.0% | *4.0%* |

| Fiscal Year Ends | QUARTERLY REVENUES ($ mill.) A Dec.31 | Mar.31 | Jun.30 | Sep.30 | Full Fiscal Year |
|---|---|---|---|---|---|
| 2008 | 751.6 | 1020.0 | 464.7 | 391.9 | 2628.2 |
| 2009 | 826.2 | 1040.9 | 427.0 | 412.8 | 2706.9 |
| 2010 | 727.4 | 1056.6 | 459.7 | 465.2 | 2708.9 |
| 2011 | 795.9 | *1079.1* | *485* | *490* | *2850* |
| 2012 | *815* | *1100* | *500* | *510* | *2925* |

| Fiscal Year Ends | EARNINGS PER SHARE A B Dec.31 | Mar.31 | Jun.30 | Sep.30 | Full Fiscal Year |
|---|---|---|---|---|---|
| 2008 | .96 | 1.66 | .06 | d.24 | 2.44 |
| 2009 | 1.03 | 1.65 | .11 | d.25 | 2.53 |
| 2010 | 1.01 | 1.64 | d.07 | d.29 | 2.27 |
| 2011 | 1.02 | *1.55* | *d.10* | *d.37* | *2.10* |
| 2012 | *1.08* | *1.61* | *d.04* | *d.30* | *2.35* |

| Cal-endar | QUARTERLY DIVIDENDS PAID C ■ Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year |
|---|---|---|---|---|---|
| 2007 | .34 | .34 | .34 | .34 | 1.36 |
| 2008 | .34 | .36 | .36 | .36 | 1.42 |
| 2009 | .36 | .37 | .37 | .37 | 1.47 |
| 2010 | .37 | .378 | .378 | .378 | 1.50 |
| 2011 | .378 | | | | |

**BUSINESS:** WGL Holdings, Inc. is the parent of Washington Gas Light, a natural gas distributor in Washington, D.C. and adjacent areas of VA and MD to resident'l and comm'l users (1,073,722 meters). Hampshire Gas, a federally regulated sub., operates an underground gas-storage facility in WV. Non-regulated subs.: Wash. Gas Energy Svcs. sells and delivers natural gas and provides energy related products in the D.C. metro area; Wash. Gas Energy Sys. designs/installs comm'l heating, ventilating, and air cond. systems. Black Rock Inc. owns 9.2% of common stock; Off./dir. less than 1% (1/11 proxy). Chrmn. & CEO: Terry D. McCallister. Inc.: D.C. and VA. Addr.: 101 Const. Ave., N.W., Washington, D.C. 20080. Tel.: 202-624-6410. Internet: www.wglholdings.com.

**WGL Holdings is off to a decent start this year.** Its top line benefited from higher volumes at the Utility and Non-Utility operating segments, reflecting growth in active customer accounts. Indeed, revenues advanced about 9.5% over this time frame. Meanwhile, after excluding mark-to-market gains on energy-related derivatives, it is apparent that margins were squeezed a bit during the December interim. This margin compression offset top-line gains and equated to only a 1% hike in the bottom line, to $1.02 a share.

**We look for a 7.5% earnings decline this year.** The downturn will likely stem from lower realized margins on gas sales. Meanwhile, costs have been creeping higher and impacting profits in Virginia. The company does have a proposed rate case in the works for that region. But even if this goes through as planned, the higher rates will not kick in until October of this year. The benefits of this rate case will no doubt be a nice contributor to next year's bottom line. And when this is combined with prospective gains in natural gas demand, and an overall firming up in the economy, we have introduced our 2012 earnings estimate at $2.35 a share.

**Some alternative energy investments should contribute nicely down the road.** WGL has two solar projects planned for this year. The first is located at the University of Maryland and will produce 792 megawatt hours of electricity annually. It should be operational during the March period. The second and larger site will be located at two Perdue facilities, generating about 3,700 megawatt hours of electricity each year. This project is slated for completion in September. These ventures will be owned and operated by Washington Gas Energy Services, and the energy produced will be sold to the on-site customers under long-term contracts.

**These neutrally ranked shares have appeal as an income vehicle.** And, with the recent market appearing to be a bit overbought, these high-quality shares provide a safe haven in the event of a correction. This is evident in the stock's high Safety rank (1), top mark for Price Stability (100), and conservative Beta (.65). However, capital appreciation potential for the pull to 2014-2016 is subpar.

*Bryan J. Fong* *March 11, 2011*

(A) Fiscal years end Sept. 30th.
(B) Based on diluted shares. Excludes nonrecurring losses: '01, (13¢); '02, (34¢); '07, (4¢); '08, (14¢) discontinued operations: '06, (15¢). Qtly egs. may not sum to total, due to change in shares outstanding. Next earnings report due late April. (C) Dividends historically paid early February, May, August, and November. ■ Dividend reinvestment plan available.
(D) Includes deferred charges and intangibles. '10: $580.4 million, $11.48/sh.
(E) In millions, adjusted for stock split.

| | |
|---|---|
| Company's Financial Strength | A |
| Stock's Price Stability | 100 |
| Price Growth Persistence | 45 |
| Earnings Predictability | 95 |

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# ATTACHMENT C

ZACKS INVESTMENT RESEARCH
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## AMERICAN STS WTR CO (NYSE)

Scottrade

| AWR | 33.69 | ▲0.04 | (0.12%) | Vol. 25,229 | 13:16 ET |
|---|---|---|---|---|---|

American States is a public utility company engaged principally in thepurchase, production, distribution and sale of water. The company alsodistributes electricity in some communities. In the customer service areas for both water and electric, rates and operations are subject to the jurisdiction of the California Public Utilities Commission.

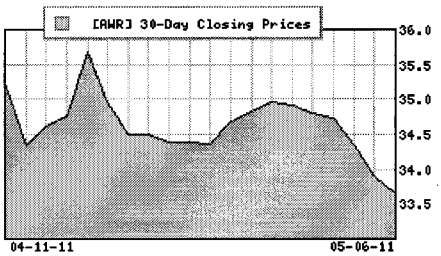
### General Information

AMER STATES WTR
-
-, - -
Phone: -
Fax: -
Web: -
Email: None

| | |
|---|---|
| Industry | UTIL-WATER SPLY |
| Sector: | Utilities |
| Fiscal Year End | December |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 08/04/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 33.65 |
| 52 Week High | 39.44 |
| 52 Week Low | 31.24 |
| Beta | 0.38 |
| 20 Day Moving Average | 73,821.45 |
| Target Price Consensus | 42.5 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | -4.70 | 4 Week | -5.56 |
| 12 Week | 1.29 | 12 Week | 0.46 |
| YTD | -2.38 | YTD | -8.39 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 18.65 | Dividend Yield | 3.09% |
| | | Annual Dividend | $1.04 |
| Market Capitalization (millions) | 627.71 | Payout Ratio | 0.57 |
| Short Ratio | 5.73 | Change in Payout Ratio | -0.05 |
| Last Split Date | 06/10/2002 | Last Dividend Payout / Amount | 02/10/2011 / $0.26 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 0.59 | Current (1=Strong Buy, 5=Strong Sell) | 2.43 |
| Current Year EPS Consensus Estimate | 2.12 | 30 Days Ago | 2.43 |
| Estimated Long-Term EPS Growth Rate | 11.00 | 60 Days Ago | 2.71 |
| Next EPS Report Date | 08/04/2011 | 90 Days Ago | 2.71 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 15.87 | vs. Previous Year | -17.78% | vs. Previous Year | 4.46% |
| Trailing 12 Months: | 18.29 | vs. Previous Quarter | 0.00% | vs. Previous Quarter: | -9.06% |
| PEG Ratio | 1.44 | | | | |

| Price Ratios | | ROE | | ROA | |
|---|---|---|---|---|---|
| Price/Book | 1.66 | 03/31/11 | 9.27 | 03/31/11 | 2.93 |

| | | | | | |
|---|---|---|---|---|---|
| Price/Cash Flow | 8.25 | 12/31/10 | 9.74 | 12/31/10 | 3.09 |
| Price / Sales | 1.55 | 09/30/10 | 8.89 | 09/30/10 | 2.83 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | 8.55 |
| 12/31/10 | 1.15 | 12/31/10 | 1.13 | 12/31/10 | 9.01 |
| 09/30/10 | 1.04 | 09/30/10 | 1.03 | 09/30/10 | 8.49 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 13.57 | 12/31/10 | 13.57 | 12/31/10 | 20.28 |
| 09/30/10 | 12.27 | 09/30/10 | 12.27 | 09/30/10 | 20.01 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 45.95 | 12/31/10 | 0.79 | 12/31/10 | 44.26 |
| 09/30/10 | 48.52 | 09/30/10 | 0.81 | 09/30/10 | 44.63 |

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## CALIFORNIA WTR SVC GROUP (NYSE)

Scottrade

| CWT | 36.63 | ▲0.14 | (0.38%) | Vol. 47,605 | 13:24 ET |
|---|---|---|---|---|---|

California Water Service Company's business, which is carried on through its operating subsidiaries, consists of the production, purchase, storage, purification, distribution and sale of water for domestic, industrial, public and irrigation uses, and for fire protection. It also provides water related services under agreements with municipalities and other private companies. The nonregulated services include full water system operation, and billing and meter reading services.

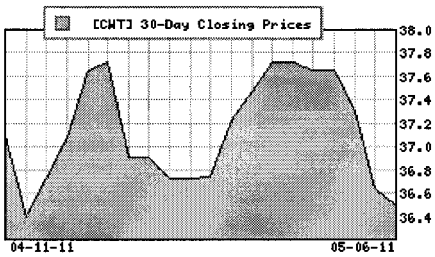
### General Information

CALIF WATER SVC
-
-, - -
Phone: -
Fax: -
Web: -
Email: None

| | |
|---|---|
| Industry | UTIL-WATER SPLY |
| Sector: | Utilities |
| Fiscal Year End | December |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 07/27/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 36.49 |
| 52 Week High | 39.53 |
| 52 Week Low | 33.81 |
| Beta | 0.30 |
| 20 Day Moving Average | 89,605.90 |
| Target Price Consensus | 41 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | -2.17 | 4 Week | -3.05 |
| 12 Week | 1.25 | 12 Week | 0.41 |
| YTD | -2.09 | YTD | -8.12 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 20.83 | Dividend Yield | 3.37% |
| | | Annual Dividend | $1.23 |
| Market Capitalization (millions) | 760.20 | Payout Ratio | 0.70 |
| Short Ratio | 7.64 | Change in Payout Ratio | -0.02 |
| Last Split Date | 01/26/1998 | Last Dividend Payout / Amount | 05/05/2011 / $0.31 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 0.48 | Current (1=Strong Buy, 5=Strong Sell) | 2.25 |
| Current Year EPS Consensus Estimate | 2.13 | 30 Days Ago | 2.25 |
| Estimated Long-Term EPS Growth Rate | - | 60 Days Ago | 2.25 |
| Next EPS Report Date | 07/27/2011 | 90 Days Ago | 2.25 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 17.14 | vs. Previous Year | -50.00% | vs. Previous Year | 8.73% |
| Trailing 12 Months: | 20.73 | vs. Previous Quarter | -78.26% | vs. Previous Quarter: | -6.93% |
| PEG Ratio | - | | | | |

| Price Ratios | | ROE | | ROA | |
|---|---|---|---|---|---|
| Price/Book | 1.75 | 03/31/11 | 8.53 | 03/31/11 | 2.24 |
| Price/Cash Flow | 9.06 | 12/31/10 | 8.81 | 12/31/10 | 2.32 |
| Price / Sales | 1.62 | 09/30/10 | 9.26 | 09/30/10 | 2.48 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | 7.85 |
| 12/31/10 | 1.18 | 12/31/10 | 1.12 | 12/31/10 | 8.18 |
| 09/30/10 | 0.59 | 09/30/10 | 0.55 | 09/30/10 | 8.50 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 13.51 | 12/31/10 | 13.51 | 12/31/10 | 20.91 |
| 09/30/10 | 13.36 | 09/30/10 | 13.36 | 09/30/10 | 20.98 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 31.32 | 12/31/10 | 1.10 | 12/31/10 | 52.39 |
| 09/30/10 | 32.92 | 09/30/10 | 0.87 | 09/30/10 | 46.56 |

*Proven Ratings, Research & Recommendations*

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## SJW CORP (NYSE)

Scottrade

| SJW | 23.10 | ▲0.01 | (0.04%) | Vol. 33,698 | 15:02 ET |
|---|---|---|---|---|---|

SJW CORP. is a holding company which operates through its wholly-ownedsubsidiaries, San Jose Water Co., SJW Land Co., and Western Precision, Inc.San Jose Water Co., is a public utility in the business of providing waterservice to a population of approximately 928,000 people. Their servicearea encompasses about 134 sq. miles in the metropolitan San Juan area.SJW Land Co. operates parking facilities located adjacent to the theirheadquarters and the San Jose area.

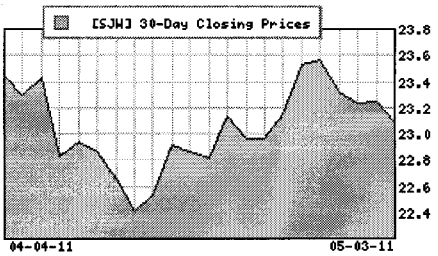
### General Information

SJW CORP
110 W. TAYLOR STREET
SAN JOSE, CA 95110
Phone: -
Fax: -
Web: http://www.sjwater.com
Email: None

| | |
|---|---|
| Industry | UTIL-WATER SPLY |
| Sector: | Utilities |
| Fiscal Year End | December |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 07/27/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | 2 |
| Yesterday's Close | 23.09 |
| 52 Week High | 28.19 |
| 52 Week Low | 22.25 |
| Beta | 0.67 |
| 20 Day Moving Average | 34,745.15 |
| Target Price Consensus | 27 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | -0.90 | 4 Week | -2.65 |
| 12 Week | -4.55 | 12 Week | -6.80 |
| YTD | -12.77 | YTD | -19.02 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 18.58 | Dividend Yield | 2.99% |
| | | Annual Dividend | $0.69 |
| Market Capitalization (millions) | 428.94 | Payout Ratio | 0.85 |
| Short Ratio | 11.19 | Change in Payout Ratio | 0.19 |
| Last Split Date | 03/17/2006 | Last Dividend Payout / Amount | 02/03/2011 / $0.17 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 0.25 | Current (1=Strong Buy, 5=Strong Sell) | 2.33 |
| Current Year EPS Consensus Estimate | 0.99 | 30 Days Ago | 2.33 |
| Estimated Long-Term EPS Growth Rate | - | 60 Days Ago | 2.33 |
| Next EPS Report Date | 07/27/2011 | 90 Days Ago | 3.00 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 23.32 | vs. Previous Year | -40.00% | vs. Previous Year | 8.13% |
| Trailing 12 Months: | 28.51 | vs. Previous Quarter | -70.00% | vs. Previous Quarter: | -13.90% |
| PEG Ratio | - | | | | |

| Price Ratios | | ROE | | ROA | |
|---|---|---|---|---|---|
| Price/Book | 1.68 | 03/31/11 | 5.97 | 03/31/11 | 1.61 |
| Price/Cash Flow | 9.75 | 12/31/10 | 6.14 | 12/31/10 | 1.67 |
| Price / Sales | 1.96 | 09/30/10 | 6.42 | 09/30/10 | 1.77 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | 6.95 |
| 12/31/10 | 1.30 | 12/31/10 | 1.27 | 12/31/10 | 7.23 |
| 09/30/10 | 0.80 | 09/30/10 | 0.78 | 09/30/10 | 7.62 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 15.48 | 12/31/10 | 15.48 | 12/31/10 | 13.76 |
| 09/30/10 | 13.89 | 09/30/10 | 13.89 | 09/30/10 | 13.92 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 90.65 | 12/31/10 | 1.16 | 12/31/10 | 53.69 |
| 09/30/10 | 90.01 | 09/30/10 | 1.15 | 09/30/10 | 53.43 |

Zacks.com Quotes and Research

## AQUA AMERICA INC (NYSE)

Scottrade

| WTR | 22.83 | ▲0.27 | (1.20%) | Vol. 200,155 | 13:25 ET |
|---|---|---|---|---|---|

Aqua America is the largest publicly-traded U.S.-based water utility serving residents in Pennsylvania, Ohio, Illinois, Texas, New Jersey, Indiana, Virginia, Florida, North Carolina, Maine, Missouri, New York, South Carolina and Kentucky. The company has been committed to the preservation and improvement of the environment throughout its history, which spans more than 100 years.

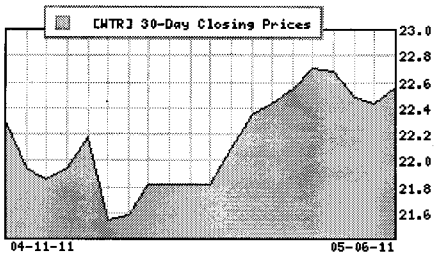
### General Information

AQUA AMER INC
-
-, - -
Phone: -
Fax: -
Web: -
Email: None

| | |
|---|---|
| Industry | UTIL-WATER SPLY |
| Sector: | Utilities |
| Fiscal Year End | December |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 08/09/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 22.56 |
| 52 Week High | 23.79 |
| 52 Week Low | 16.52 |
| Beta | 0.22 |
| 20 Day Moving Average | 543,550.38 |
| Target Price Consensus | 23.8 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | 0.36 | 4 Week | -0.54 |
| 12 Week | -3.71 | 12 Week | -4.51 |
| YTD | 0.36 | YTD | -5.83 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 137.97 | Dividend Yield | 2.75% |
| | | Annual Dividend | $0.62 |
| Market Capitalization (millions) | 3,112.56 | Payout Ratio | 0.66 |
| Short Ratio | 10.56 | Change in Payout Ratio | -0.03 |
| Last Split Date | 12/02/2005 | Last Dividend Payout / Amount | 02/15/2011 / $0.16 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 0.24 | Current (1=Strong Buy, 5=Strong Sell) | 2.27 |
| Current Year EPS Consensus Estimate | 0.97 | 30 Days Ago | 2.27 |
| Estimated Long-Term EPS Growth Rate | 6.50 | 60 Days Ago | 2.27 |
| Next EPS Report Date | 08/09/2011 | 90 Days Ago | 2.27 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 23.19 | vs. Previous Year | 18.75% | vs. Previous Year | 6.73% |
| Trailing 12 Months: | 24.00 | vs. Previous Quarter | -9.52% | vs. Previous Quarter: | -4.46% |
| PEG Ratio | 3.57 | | | | |

| Price Ratios | ROE | ROA |
|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Price/Book | 2.64 | 03/31/11 | 11.19 | 03/31/11 | 3.25 |
| Price/Cash Flow | 12.66 | 12/31/10 | 10.88 | 12/31/10 | 3.17 |
| Price / Sales | 4.22 | 09/30/10 | 10.84 | 09/30/10 | 3.18 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | 17.44 |
| 12/31/10 | 0.65 | 12/31/10 | 0.61 | 12/31/10 | 17.08 |
| 09/30/10 | 0.72 | 09/30/10 | 0.67 | 09/30/10 | 17.04 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 28.10 | 12/31/10 | 28.10 | 12/31/10 | 8.54 |
| 09/30/10 | 28.01 | 09/30/10 | 28.01 | 09/30/10 | 8.30 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 28.68 | 12/31/10 | 1.30 | 12/31/10 | 56.60 |
| 09/30/10 | 28.01 | 09/30/10 | 1.27 | 09/30/10 | 56.00 |

*Proven Ratings, Research & Recommendations*

**Zacks.com Quotes and Research**

## AGL RESOURCES INC (NYSE)

Scottrade

| AGL | 41.20 | ▲0.01 | (0.02%) | Vol. 220,610 | 15:08 ET |
|---|---|---|---|---|---|

AGL Resources principal business is the distribution of natural gas to customers in central, northwest, northeast and southeast Georgia and the Chattanooga, Tennessee area through its natural gas distribution subsidiary. AGL's major service area is the ten county metropolitan Atlanta area.

### General Information

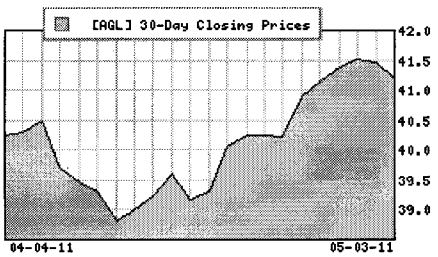
AGL RESOURCES
TEN PEACHTREE PLACE
ATLANTA, GA 30309
Phone: -
Fax: 404-584-3945
Web: http://www.aglresources.com
Email: scave@aglresources.com

| | |
|---|---|
| Industry | UTIL-GAS DISTR |
| Sector: | Utilities |

| | |
|---|---|
| Fiscal Year End | December |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 07/28/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 41.19 |
| 52 Week High | 41.96 |
| 52 Week Low | 34.21 |
| Beta | 0.45 |
| 20 Day Moving Average | 338,833.19 |
| Target Price Consensus | 42 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | 2.18 | 4 Week | 0.38 |
| 12 Week | 9.29 | 12 Week | 6.70 |
| YTD | 14.90 | YTD | 6.79 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 77.98 | Dividend Yield | 4.37% |
| | | Annual Dividend | $1.80 |
| Market Capitalization (millions) | 3,212.08 | Payout Ratio | 0.00 |
| Short Ratio | 11.38 | Change in Payout Ratio | 0.00 |
| Last Split Date | 12/04/1995 | Last Dividend Payout / Amount | 02/16/2011 / $0.45 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 0.27 | Current (1=Strong Buy, 5=Strong Sell) | 2.13 |
| Current Year EPS Consensus Estimate | 3.15 | 30 Days Ago | 2.13 |
| Estimated Long-Term EPS Growth Rate | 4.00 | 60 Days Ago | 2.13 |
| Next EPS Report Date | 07/28/2011 | 90 Days Ago | 2.13 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 13.10 | vs. Previous Year | -5.78% | vs. Previous Year | -12.46% |
| Trailing 12 Months: | 13.96 | vs. Previous Quarter | 89.53% | vs. Previous Quarter: | 32.03% |
| PEG Ratio | 3.27 | | | | |

| Price Ratios | | ROE | | ROA | |
|---|---|---|---|---|---|
| Price/Book | 1.75 | 03/31/11 | - | 03/31/11 | - |
| Price/Cash Flow | | 12/31/10 | | 12/31/10 | |

| | | | | | |
|---|---|---|---|---|---|
| | 8.08 | | 12.98 | | 3.40 |
| Price / Sales | 1.43 | 09/30/10 | 13.19 | 09/30/10 | 3.50 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 0.89 | 12/31/10 | 0.63 | 12/31/10 | 10.02 |
| 09/30/10 | 0.79 | 09/30/10 | 0.47 | 09/30/10 | 10.27 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 16.43 | 12/31/10 | 16.43 | 12/31/10 | 23.52 |
| 09/30/10 | 17.35 | 09/30/10 | 17.35 | 09/30/10 | 23.28 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 2.98 | 12/31/10 | 0.91 | 12/31/10 | 47.68 |
| 09/30/10 | 2.87 | 09/30/10 | 0.83 | 09/30/10 | 45.49 |

Zacks.com Quotes and Research

## ATMOS ENERGY CORP (NYSE)

Scottrade

| ATO | 34.61 | ▲0.41 | (1.20%) | Vol. 120,903 | 14:02 ET |
|---|---|---|---|---|---|

Atmos Energy Corporation distributes and sells natural gas to residential, commercial, industrial, agricultural and other customers. Atmos operates through five divisions in cities, towns and communities in service areas located in Colorado, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Missouri, South Carolina, Tennessee, Texas and Virginia. The Company has entered into an agreement to sell all of its natural gas utility operations in South Carolina. The Company also transports natural gas for others through its distribution system.

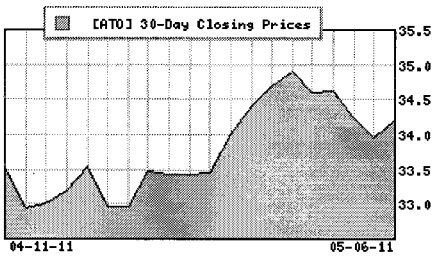
### General Information

ATMOS ENERGY CP
-
-, - -
Phone: -
Fax: -
Web: -
Email: None

| | |
|---|---|
| Industry | UTIL-GAS DISTR |
| Sector: | Utilities |
| Fiscal Year End | September |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 08/10/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 34.20 |
| 52 Week High | 35.25 |
| 52 Week Low | 25.86 |
| Beta | 0.52 |
| 20 Day Moving Average | 224,307.25 |
| Target Price Consensus | 33.7 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | 1.18 | 4 Week | 0.28 |
| 12 Week | 2.09 | 12 Week | 1.25 |
| YTD | 9.62 | YTD | 2.86 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 90.65 | Dividend Yield | 3.98% |
| | | Annual Dividend | $1.36 |
| Market Capitalization (millions) | 3,100.20 | Payout Ratio | 0.61 |
| Short Ratio | 9.60 | Change in Payout Ratio | -0.02 |
| Last Split Date | 05/17/1994 | Last Dividend Payout / Amount | 02/23/2011 / $0.34 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 0.09 | Current (1=Strong Buy, 5=Strong Sell) | 2.89 |
| Current Year EPS Consensus Estimate | 2.30 | 30 Days Ago | 2.89 |
| Estimated Long-Term EPS Growth Rate | 4.50 | 60 Days Ago | 2.89 |
| Next EPS Report Date | 08/10/2011 | 90 Days Ago | 2.89 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 14.85 | vs. Previous Year | -8.28% | vs. Previous Year | -16.65% |
| Trailing 12 Months: | 15.34 | vs. Previous Quarter | 64.20% | vs. Previous Quarter: | 39.78% |
| PEG Ratio | 3.30 | | | | |

| Price Ratios | ROE | ROA |
|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Price/Book | 1.31 | 03/31/11 | 8.87 | 03/31/11 | 2.94 |
| Price/Cash Flow | 7.25 | 12/31/10 | 9.52 | 12/31/10 | 3.17 |
| Price / Sales | 0.72 | 09/30/10 | 9.23 | 09/30/10 | 3.11 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | 0.91 | 03/31/11 | 0.70 | 03/31/11 | 4.68 |
| 12/31/10 | 0.86 | 12/31/10 | 0.63 | 12/31/10 | 4.66 |
| 09/30/10 | 0.75 | 09/30/10 | 0.48 | 09/30/10 | 4.38 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | 7.50 | 03/31/11 | 7.50 | 03/31/11 | 26.19 |
| 12/31/10 | 6.52 | 12/31/10 | 6.52 | 12/31/10 | 25.16 |
| 09/30/10 | 6.99 | 09/30/10 | 6.99 | 09/30/10 | 24.16 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | 12.01 | 03/31/11 | 0.76 | 03/31/11 | 43.22 |
| 12/31/10 | 13.40 | 12/31/10 | 0.79 | 12/31/10 | 44.27 |
| 09/30/10 | 13.07 | 09/30/10 | 0.83 | 09/30/10 | 45.38 |

*Proven Ratings, Research & Recommendations*

**Zacks.com Quotes and Research**

## LACLEDE GROUP INC (NYSE)

Scottrade

| LG | 38.42 | -0.23 | (-0.60%) | Vol. 71,445 | 15:06 ET |
|---|---|---|---|---|---|

The Laclede Group, Inc. is a public utility engaged in the retail distribution and transportation of natural gas. The Company, which is subject to the jurisdiction of the Missouri Public Service Commission, serves the City of St. Louis, St. Louis County, the City of St. Charles, St. Charles County, the town of Arnold, and parts of Franklin, Jefferson, St. Francois, Ste. Genevieve, Iron, Madison and Butler Counties, all in Missouri.

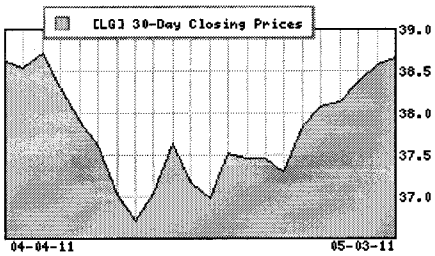
### General Information

LACLEDE GRP INC
720 OLIVE ST
ST LOUIS, MO 63101
Phone: -
Fax: 314-421-1979
Web: http://www.thelacledegroup.com
Email: investorservices@lacledegas.com

| | |
|---|---|
| Industry | UTIL-GAS DISTR |
| Sector: | Utilities |
| Fiscal Year End | September |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 07/22/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 38.65 |
| 52 Week High | 39.99 |
| 52 Week Low | 31.65 |
| Beta | 0.08 |
| 20 Day Moving Average | 65,142.10 |
| Target Price Consensus | N/A |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | 0.29 | 4 Week | -1.49 |
| 12 Week | -0.82 | 12 Week | -3.16 |
| YTD | 5.77 | YTD | -3.15 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 22.39 | Dividend Yield | 4.19% |
| | | Annual Dividend | $1.62 |
| Market Capitalization (millions) | 865.18 | Payout Ratio | 0.67 |
| Short Ratio | 10.21 | Change in Payout Ratio | 0.05 |
| Last Split Date | 03/08/1994 | Last Dividend Payout / Amount | 03/09/2011 / $0.41 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 0.22 | Current (1=Strong Buy, 5=Strong Sell) | 3.00 |
| Current Year EPS Consensus Estimate | 2.45 | 30 Days Ago | 3.00 |
| Estimated Long-Term EPS Growth Rate | 3.00 | 60 Days Ago | 3.00 |
| Next EPS Report Date | 07/22/2011 | 90 Days Ago | 3.00 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 15.80 | vs. Previous Year | 0.00% | vs. Previous Year | -14.41% |
| Trailing 12 Months: | 15.97 | vs. Previous Quarter | 17.14% | vs. Previous Quarter: | 22.42% |
| PEG Ratio | 5.27 | | | | |

| Price Ratios | | ROE | | ROA | |
|---|---|---|---|---|---|
| Price/Book | 1.52 | 03/31/11 | 9.92 | 03/31/11 | 2.96 |

| | | | | | |
|---|---|---|---|---|---|
| Price/Cash Flow | 9.17 | 12/31/10 | 9.84 | 12/31/10 | 2.95 |
| Price / Sales | 0.54 | 09/30/10 | 9.83 | 09/30/10 | 2.91 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | 3.38 |
| 12/31/10 | 1.39 | 12/31/10 | 0.97 | 12/31/10 | 3.18 |
| 09/30/10 | 1.24 | 09/30/10 | 0.84 | 09/30/10 | 3.07 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 4.83 | 12/31/10 | 4.83 | 12/31/10 | 24.51 |
| 09/30/10 | 4.68 | 09/30/10 | 4.68 | 09/30/10 | 24.02 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 13.41 | 12/31/10 | 0.66 | 12/31/10 | 39.91 |
| 09/30/10 | 14.62 | 09/30/10 | 0.68 | 09/30/10 | 40.48 |

Zacks.com Quotes and Research

## NEW JERSEY RES (NYSE)

Scottrade

| NJR | 44.50 | ▲0.66 | (1.51%) | Vol. 106,324 | 14:03 ET |
|---|---|---|---|---|---|

NJ RESOURCES is an exempt energy svcs holding company providing retail & wholesale natural gas & related energy services to customers from the Gulf Coast to New England. Subsidiaries include: (1) N J Natural Gas Co, a natural gas distribution company that provides regulated energy & appliance services to residential, commercial & industrial customers in central & northern N J. (2) NJR Energy Holdings Corp formerly NJR Energy Svcs Corp & (3) NJR Development Corp, a sub-holding company of NJR, which includes the Company's remaining unregulated operating subsidiaries.

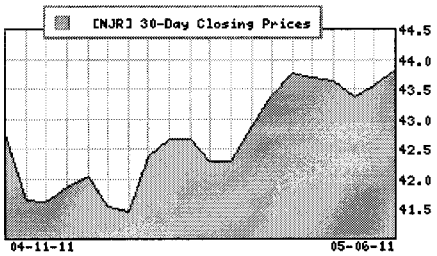
### General Information

NJ RESOURCES
-
-, - -
Phone: -
Fax: -
Web: -
Email: None

| | |
|---|---|
| Industry | UTIL-GAS DISTR |
| Sector: | Utilities |
| Fiscal Year End | September |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 08/10/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 43.84 |
| 52 Week High | 45.59 |
| 52 Week Low | 34.07 |
| Beta | 0.20 |
| 20 Day Moving Average | 151,621.20 |
| Target Price Consensus | 46 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | 2.45 | 4 Week | 1.53 |
| 12 Week | 7.14 | 12 Week | 6.25 |
| YTD | 1.69 | YTD | -4.57 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 41.42 | Dividend Yield | 3.28% |
| | | Annual Dividend | $1.44 |
| Market Capitalization (millions) | 1,815.72 | Payout Ratio | 0.56 |
| Short Ratio | 14.01 | Change in Payout Ratio | 0.02 |
| Last Split Date | 03/04/2008 | Last Dividend Payout / Amount | 03/11/2011 / $0.36 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 0.21 | Current (1=Strong Buy, 5=Strong Sell) | 2.50 |
| Current Year EPS Consensus Estimate | 2.58 | 30 Days Ago | 2.50 |
| Estimated Long-Term EPS Growth Rate | 4.00 | 60 Days Ago | 2.50 |
| Next EPS Report Date | 08/10/2011 | 90 Days Ago | 2.50 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 16.97 | vs. Previous Year | 4.55% | vs. Previous Year | 6.39% |
| Trailing 12 Months: | 17.13 | vs. Previous Quarter | 130.00% | vs. Previous Quarter: | 37.00% |
| PEG Ratio | 4.24 | | | | |

| Price Ratios | | ROE | | ROA | |
|---|---|---|---|---|---|
| Price/Book | 2.45 | 03/31/11 | 14.49 | 03/31/11 | 4.14 |
| Price/Cash Flow | 13.39 | 12/31/10 | 13.92 | 12/31/10 | 4.05 |
| Price / Sales | 0.65 | 09/30/10 | 13.91 | 09/30/10 | 4.14 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | 3.80 |
| 12/31/10 | 1.09 | 12/31/10 | 0.65 | 12/31/10 | 3.77 |
| 09/30/10 | 1.11 | 09/30/10 | 0.63 | 09/30/10 | 3.86 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | 3.49 | 03/31/11 | 3.49 | 03/31/11 | - |
| 12/31/10 | 4.61 | 12/31/10 | 4.61 | 12/31/10 | 17.86 |
| 09/30/10 | 6.52 | 09/30/10 | 6.52 | 09/30/10 | 17.61 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | 7.51 | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 8.34 | 12/31/10 | 0.59 | 12/31/10 | 36.96 |
| 09/30/10 | 8.34 | 09/30/10 | 0.59 | 09/30/10 | 37.15 |

Zacks.com Quotes and Research

## NORTHWEST NAT GAS CO (NYSE)

Scottrade

| NWN | 45.09 | ▲0.48 | (1.08%) | Vol. 49,580 | 14:02 ET |
|---|---|---|---|---|---|

NW Natural is principally engaged in the distribution of natural gas.The Oregon Public Utility Commission (OPUC) has allocated to NW Natural as its exclusive service area a major portion of western Oregon, including the Portland metropolitan area, most of the fertile Willamette Valley and the coastal area from Astoria to Coos Bay. NW Natural also holds certificates from the Washington Utilities and Transportation Commission (WUTC) granting it exclusive rights to serve portions of three Washington counties bordering the Columbia River.

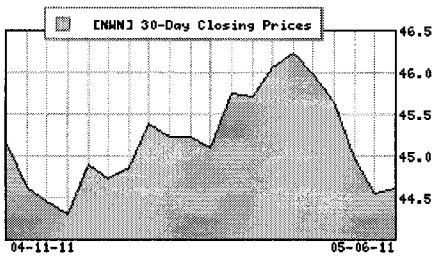
### General Information

NORTHWEST NAT G
-
-, - -
Phone: -
Fax: -
Web: -
Email: None

| | |
|---|---|
| Industry | UTIL-GAS DISTR |
| Sector: | Utilities |
| Fiscal Year End | December |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 08/10/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 44.61 |
| 52 Week High | 50.86 |
| 52 Week Low | 41.90 |
| Beta | 0.31 |
| 20 Day Moving Average | 114,048.75 |
| Target Price Consensus | 47.33 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | -1.83 | 4 Week | -2.71 |
| 12 Week | -1.65 | 12 Week | -2.46 |
| YTD | -4.00 | YTD | -9.92 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 26.67 | Dividend Yield | 3.90% |
| | | Annual Dividend | $1.74 |
| Market Capitalization (millions) | 1,189.70 | Payout Ratio | 0.66 |
| Short Ratio | 12.96 | Change in Payout Ratio | 0.08 |
| Last Split Date | 09/09/1996 | Last Dividend Payout / Amount | 04/27/2011 / $0.44 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 0.18 | Current (1=Strong Buy, 5=Strong Sell) | 2.25 |
| Current Year EPS Consensus Estimate | 2.59 | 30 Days Ago | 2.25 |
| Estimated Long-Term EPS Growth Rate | 4.60 | 60 Days Ago | 2.25 |
| Next EPS Report Date | 08/10/2011 | 90 Days Ago | 2.25 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 17.21 | vs. Previous Year | -6.71% | vs. Previous Year | 12.76% |
| Trailing 12 Months: | 17.03 | vs. Previous Quarter | 37.84% | vs. Previous Quarter: | 20.49% |
| PEG Ratio | 3.72 | | | | |

| Price Ratios | ROE | ROA |
|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Price/Book | 1.64 | 03/31/11 | 10.04 | 03/31/11 | 2.78 |
| Price/Cash Flow | 8.63 | 12/31/10 | 10.56 | 12/31/10 | 2.93 |
| Price / Sales | 1.40 | 09/30/10 | 10.95 | 09/30/10 | 3.07 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | 0.66 | 03/31/11 | 0.54 | 03/31/11 | 8.23 |
| 12/31/10 | 0.71 | 12/31/10 | 0.53 | 12/31/10 | 8.95 |
| 09/30/10 | 0.56 | 09/30/10 | 0.35 | 09/30/10 | 8.73 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | 13.80 | 03/31/11 | 13.80 | 03/31/11 | 27.12 |
| 12/31/10 | 15.04 | 12/31/10 | 15.04 | 12/31/10 | 26.02 |
| 09/30/10 | 14.46 | 09/30/10 | 14.46 | 09/30/10 | 25.41 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | 7.69 | 03/31/11 | 0.76 | 03/31/11 | 43.27 |
| 12/31/10 | 6.85 | 12/31/10 | 0.85 | 12/31/10 | 46.05 |
| 09/30/10 | 7.34 | 09/30/10 | 0.88 | 09/30/10 | 46.70 |

Zacks.com Quotes and Research

## PIEDMONT NAT GAS INC (NYSE)

Scottrade

| PNY | 31.12 | -0.34 | (-1.08%) | Vol. 133,337 | 15:11 ET |
|---|---|---|---|---|---|

Piedmont Natural Gas Co, Inc., is an energy and services company engaged in the transportation and sale of natural gas and the sale of propane to residential, commercial and industrial customers in North Carolina, South Carolina and Tennessee. The Company is the second-largest natural gas utility in the southeast. The Company and its non-utility subsidiaries and divisions are also engaged in acquiring, marketing and arranging for the transportation and storage of natural gas for large-volume purchasers, and in the sale of propane to customers in the Company's three-state service area.

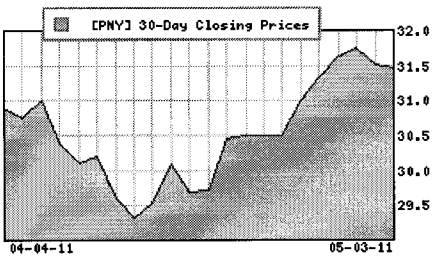
### General Information

PIEDMONT NAT GA
4720 PIEDMONT ROW DR
CHARLOTTE, NC 28233
Phone: -
Fax: 704-365-3849
Web: http://www.piedmontng.com
Email: investorrelations@piedmontng.com

| | |
|---|---|
| Industry | UTIL-GAS DISTR |
| Sector: | Utilities |
| Fiscal Year End | October |
| Last Reported Quarter | 04/30/11 |
| Next EPS Date | 06/07/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 31.46 |
| 52 Week High | 32.00 |
| 52 Week Low | 24.50 |
| Beta | 0.26 |
| 20 Day Moving Average | 207,969.34 |
| Target Price Consensus | 28.5 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | 2.28 | 4 Week | 0.47 |
| 12 Week | 10.93 | 12 Week | 8.31 |
| YTD | 12.52 | YTD | 4.73 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 71.78 | Dividend Yield | 3.69% |
| | | Annual Dividend | $1.16 |
| Market Capitalization (millions) | 2,258.32 | Payout Ratio | 0.00 |
| Short Ratio | 14.55 | Change in Payout Ratio | 0.00 |
| Last Split Date | 11/01/2004 | Last Dividend Payout / Amount | 03/23/2011 / $0.29 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 0.67 | Current (1=Strong Buy, 5=Strong Sell) | 3.38 |
| Current Year EPS Consensus Estimate | 1.58 | 30 Days Ago | 3.38 |
| Estimated Long-Term EPS Growth Rate | 4.80 | 60 Days Ago | 3.43 |
| Next EPS Report Date | 06/07/2011 | 90 Days Ago | 3.43 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 19.97 | vs. Previous Year | 1.75% | vs. Previous Year | -3.22% |
| Trailing 12 Months: | 20.17 | vs. Previous Quarter | 1,066.67% | vs. Previous Quarter: | 235.92% |
| PEG Ratio | 4.19 | | | | |

| Price Ratios | | ROE | | ROA | |
|---|---|---|---|---|---|
| Price/Book | 2.24 | 04/30/11 | - | 04/30/11 | - |
| Price/Cash Flow | 10.59 | 01/31/11 | 11.31 | 01/31/11 | 3.67 |
| Price / Sales | 1.48 | 10/31/10 | 11.31 | 10/31/10 | 3.65 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 04/30/11 | - | 04/30/11 | - | 04/30/11 | - |
| 01/31/11 | 0.78 | 01/31/11 | 0.62 | 01/31/11 | 7.36 |
| 10/31/10 | 0.66 | 10/31/10 | 0.44 | 10/31/10 | 7.21 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 04/30/11 | - | 04/30/11 | - | 04/30/11 | - |
| 01/31/11 | 11.99 | 01/31/11 | 11.99 | 01/31/11 | 14.02 |
| 10/31/10 | 15.06 | 10/31/10 | 15.06 | 10/31/10 | 13.38 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 04/30/11 | - | 04/30/11 | - | 04/30/11 | - |
| 01/31/11 | 11.84 | 01/31/11 | 0.66 | 01/31/11 | 39.82 |
| 10/31/10 | 11.93 | 10/31/10 | 0.70 | 10/31/10 | 41.05 |

Zacks.com Quotes and Research

## SOUTH JERSEY INDS INC (NYSE)

Scottrade

| SJI | 56.25 | ▲0.67 | (1.21%) | Vol. 20,812 | 14:04 ET |
|---|---|---|---|---|---|

South Jersey Inds Inc. is engaged in the business of operating, through subsidiaries, various business enterprises. The company's most significant subsidiary is South Jersey Gas Company (SJG). SJG is a public utility company engaged in the purchase, transmission and sale of natural gas for residential, commercial and industrial use. SJG also makes off-system sales of natural gas on a wholesale basis to various customers on the interstate pipeline system and transports natural gas.

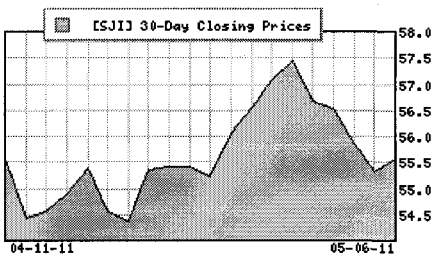
### General Information

SOUTH JERSEY IN
-
-, - -
Phone: -
Fax: -
Web: -
Email: None

| | |
|---|---|
| Industry | UTIL-GAS DISTR |
| Sector: | Utilities |
| Fiscal Year End | December |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 05/09/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 55.58 |
| 52 Week High | 58.03 |
| 52 Week Low | 41.17 |
| Beta | 0.30 |
| 20 Day Moving Average | 73,134.25 |
| Target Price Consensus | 59.5 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | -1.56 | 4 Week | -2.44 |
| 12 Week | 4.00 | 12 Week | 3.15 |
| YTD | 5.23 | YTD | -1.26 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 29.88 | Dividend Yield | 2.63% |
| | | Annual Dividend | $1.46 |
| Market Capitalization (millions) | 1,660.95 | Payout Ratio | 0.00 |
| Short Ratio | 16.51 | Change in Payout Ratio | 0.00 |
| Last Split Date | 07/01/2005 | Last Dividend Payout / Amount | 03/08/2011 / $0.37 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 1.62 | Current (1=Strong Buy, 5=Strong Sell) | 1.67 |
| Current Year EPS Consensus Estimate | 3.06 | 30 Days Ago | 1.67 |
| Estimated Long-Term EPS Growth Rate | 6.50 | 60 Days Ago | 1.57 |
| Next EPS Report Date | 05/09/2011 | 90 Days Ago | 1.57 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 18.14 | vs. Previous Year | 4.82% | vs. Previous Year | 27.86% |
| Trailing 12 Months: | 20.58 | vs. Previous Quarter | 770.00% | vs. Previous Quarter: | 76.43% |
| PEG Ratio | 2.79 | | | | |

| Price Ratios | ROE | ROA |
|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Price/Book | 2.91 | 03/31/11 | - | 03/31/11 | - |
| Price/Cash Flow | 13.21 | 12/31/10 | 14.42 | 12/31/10 | 4.22 |
| Price / Sales | - | 09/30/10 | 14.34 | 09/30/10 | 4.32 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 0.66 | 12/31/10 | 0.55 | 12/31/10 | 8.75 |
| 09/30/10 | 0.58 | 09/30/10 | 0.41 | 09/30/10 | 9.22 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 10.72 | 12/31/10 | 10.72 | 12/31/10 | 19.08 |
| 09/30/10 | 11.28 | 09/30/10 | 11.28 | 09/30/10 | 18.62 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 9.14 | 12/31/10 | 0.60 | 12/31/10 | 37.36 |
| 09/30/10 | 7.65 | 09/30/10 | 0.51 | 09/30/10 | 33.88 |

Zacks.com Quotes and Research

## SOUTHWEST GAS CORP (NYSE)

Scottrade

| SWX | 38.87 | ▲0.12 | (0.31%) | Vol. 82,307 | 14:05 ET |
|---|---|---|---|---|---|

SOUTHWEST GAS CORP. is principally engaged in the business of purchasing,transporting, and distributing natural gas in portions of Arizona, Nevada,and California. The Company also engaged in financial services activities,through PriMerit Bank, Federal Savings Bank (PriMerit or the Bank), a wholly owned subsidiary.

### General Information

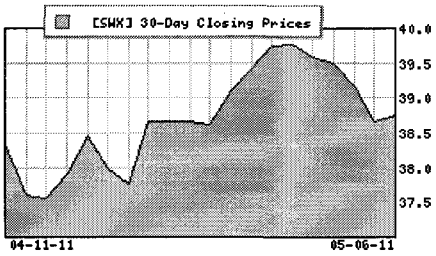
SOUTHWEST GAS
-
-, - -
Phone: -
Fax: -
Web: -
Email: None

| | |
|---|---|
| Industry | UTIL-GAS DISTR |
| Sector: | Utilities |

| | |
|---|---|
| Fiscal Year End | December |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 08/08/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 38.75 |
| 52 Week High | 39.98 |
| 52 Week Low | 28.12 |
| Beta | 0.73 |
| 20 Day Moving Average | 130,299.05 |
| Target Price Consensus | 36.25 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | -0.33 | 4 Week | -1.23 |
| 12 Week | 1.17 | 12 Week | 0.34 |
| YTD | 5.67 | YTD | -0.84 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 45.80 | Dividend Yield | 2.58% |
| | | Annual Dividend | $1.00 |
| Market Capitalization (millions) | 1,774.91 | Payout Ratio | 0.39 |
| Short Ratio | 8.47 | Change in Payout Ratio | -0.07 |
| Last Split Date | N/A | Last Dividend Payout / Amount | 02/11/2011 / $0.25 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | 0.02 | Current (1=Strong Buy, 5=Strong Sell) | 3.14 |
| Current Year EPS Consensus Estimate | 2.22 | 30 Days Ago | 3.50 |
| Estimated Long-Term EPS Growth Rate | 6.00 | 60 Days Ago | 3.50 |
| Next EPS Report Date | 08/08/2011 | 90 Days Ago | 3.50 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 17.47 | vs. Previous Year | 4.23% | vs. Previous Year | -6.03% |
| Trailing 12 Months: | 15.20 | vs. Previous Quarter | 51.02% | vs. Previous Quarter: | 34.25% |
| PEG Ratio | 2.91 | | | | |

| Price Ratios | | ROE | | ROA | |
|---|---|---|---|---|---|
| Price/Book | 1.51 | 03/31/11 | 10.28 | 03/31/11 | 3.06 |
| Price/Cash Flow | | 12/31/10 | | 12/31/10 | |

| | | | | | |
|---|---|---|---|---|---|
| | 6.67 | | 9.90 | | 2.96 |
| Price / Sales | 0.99 | 09/30/10 | 10.16 | 09/30/10 | 3.01 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | 6.56 |
| 12/31/10 | 0.75 | 12/31/10 | 0.75 | 12/31/10 | 6.20 |
| 09/30/10 | 0.57 | 09/30/10 | 0.57 | 09/30/10 | 6.18 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | 8.65 | 12/31/10 | 8.65 | 12/31/10 | 25.62 |
| 09/30/10 | 8.62 | 09/30/10 | 8.62 | 09/30/10 | 24.62 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | - | 03/31/11 | - | 03/31/11 | - |
| 12/31/10 | - | 12/31/10 | 0.96 | 12/31/10 | 49.08 |
| 09/30/10 | - | 09/30/10 | 0.96 | 09/30/10 | 49.02 |

Zacks.com Quotes and Research

## WGL HLDGS INC (NYSE)

Scottrade

| WGL | 38.85 | ▲0.66 | (1.73%) | Vol. 130,026 | 14:03 ET |
|---|---|---|---|---|---|

WASHINGTON GAS LIGHT CO is a public utility that delivers and sells natural gas to metropolitan Washington, D.C. and adjoining areas in Maryland and Virginia. A distribution subsidiary serves portions of Virginia and West Virginia. The Company has four wholly-owned active subsidiaries that include: Shenandoah Gas Company (Shenandoah) is engaged in the delivery and sale of natural gas at retail in the Shenandoah Valley, including Winchester, Middletown, Strasburg, Stephens City and New Market, Virginia, and Martinsburg, West Virginia.

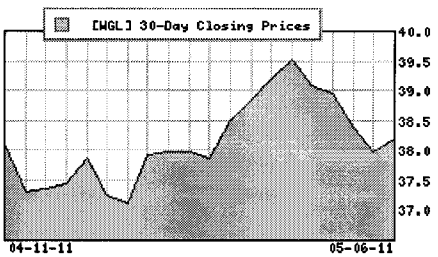
### General Information

WGL HLDGS INC
-
-, - -
Phone: -
Fax: -
Web: -
Email: None

| | |
|---|---|
| Industry | UTIL-GAS DISTR |
| Sector: | Utilities |
| Fiscal Year End | September |
| Last Reported Quarter | 03/31/11 |
| Next EPS Date | 08/10/2011 |

### Price and Volume Information

| | |
|---|---|
| Zacks Rank | |
| Yesterday's Close | 38.19 |
| 52 Week High | N/A |
| 52 Week Low | 32.75 |
| Beta | 0.26 |
| 20 Day Moving Average | 151,953.20 |
| Target Price Consensus | 39 |




| % Price Change | | % Price Change Relative to S&P 500 | |
|---|---|---|---|
| 4 Week | -0.75 | 4 Week | -1.64 |
| 12 Week | 1.41 | 12 Week | 0.57 |
| YTD | 6.77 | YTD | 0.19 |

| Share Information | | Dividend Information | |
|---|---|---|---|
| Shares Outstanding (millions) | 51.11 | Dividend Yield | 4.06% |
| | | Annual Dividend | $1.55 |
| Market Capitalization (millions) | 1,952.01 | Payout Ratio | 0.69 |
| Short Ratio | 18.69 | Change in Payout Ratio | 0.06 |
| Last Split Date | 05/02/1995 | Last Dividend Payout / Amount | 04/06/2011 / $0.39 |

| EPS Information | | Consensus Recommendations | |
|---|---|---|---|
| Current Quarter EPS Consensus Estimate | -0.09 | Current (1=Strong Buy, 5=Strong Sell) | 2.25 |
| Current Year EPS Consensus Estimate | 2.05 | 30 Days Ago | 2.25 |
| Estimated Long-Term EPS Growth Rate | 5.30 | 60 Days Ago | 2.25 |
| Next EPS Report Date | 08/10/2011 | 90 Days Ago | 2.50 |

### Fundamental Ratios

| P/E | | EPS Growth | | Sales Growth | |
|---|---|---|---|---|---|
| Current FY Estimate: | 18.59 | vs. Previous Year | -6.71% | vs. Previous Year | -3.73% |
| Trailing 12 Months: | 17.44 | vs. Previous Quarter | 50.00% | vs. Previous Quarter: | 27.81% |
| PEG Ratio | 3.54 | | | | |

| Price Ratios | ROE | ROA |
|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Price/Book | 1.54 | 03/31/11 | 9.35 | 03/31/11 | 3.01 |
| Price/Cash Flow | 9.10 | 12/31/10 | 9.82 | 12/31/10 | 3.17 |
| Price / Sales | 0.71 | 09/30/10 | 9.86 | 09/30/10 | 3.22 |
| **Current Ratio** | | **Quick Ratio** | | **Operating Margin** | |
| 03/31/11 | 1.51 | 03/31/11 | 1.37 | 03/31/11 | 4.11 |
| 12/31/10 | 1.30 | 12/31/10 | 1.00 | 12/31/10 | 4.19 |
| 09/30/10 | 1.32 | 09/30/10 | 0.83 | 09/30/10 | 4.25 |
| **Net Margin** | | **Pre-Tax Margin** | | **Book Value** | |
| 03/31/11 | 7.91 | 03/31/11 | 7.91 | 03/31/11 | 24.73 |
| 12/31/10 | 7.74 | 12/31/10 | 7.74 | 12/31/10 | 23.53 |
| 09/30/10 | 6.82 | 09/30/10 | 6.82 | 09/30/10 | 22.68 |
| **Inventory Turnover** | | **Debt-to-Equity** | | **Debt to Capital** | |
| 03/31/11 | 11.28 | 03/31/11 | 0.49 | 03/31/11 | 32.24 |
| 12/31/10 | 11.69 | 12/31/10 | 0.53 | 12/31/10 | 34.15 |
| 09/30/10 | 11.71 | 09/30/10 | 0.51 | 09/30/10 | 33.41 |

# ATTACHMENT D

Jon Markman

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Posted 1/12/2005

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SuperModels

# Invest in the coming global water shortage

Fresh water's getting scarce, and it has no substitutes. For investors in companies that can supply our increasingly thirsty planet, that spells opportunity.

By Jon D. Markman

Ten years ago next Monday, a massive earthquake rolled under the Japanese city of Kobe at dawn, toppling 140,000 buildings, causing 300 major fires, killing more than 5,000 people and leaving 300,000 homeless.

To help cover the story for the L.A. Times, I left my wife to care for our 10-day-old daughter and 2-year-old son and flew into the city with a small team of Los Angeles-based trauma doctors and nurses. We found a surreal, smoking ruin of a city with roads twisted like coils of rope, high-rises tilted at Dr. Seuss angles and thousands of middle-class families jammed into dingy, ice-cold rooms in the few public buildings left standing.

Just as in the tsunami zone of South Asia this month, the immediate health danger, besides a possible outbreak of disease, was a lack of fresh water. More than 75% of the city's water supply was destroyed when underground pipes fractured. As much as they desired pallets of drugs, food, blankets and tents sent from throughout Japan and abroad, the Kobe survivors coveted -- and needed -- clean, bottled water for cooking, drinking and bathing.

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Both incidents are a stark reminder that water is our most precious resource. Because it is seemingly ubiquitous in the United States, it is taken for granted. Massive snowstorms in California this month have loaded up the snowpack that provides water there, and rains in the Southeast are filling reservoirs in that part of the country.

The rest of the world, however, is not so fortunate.

## Not making any more water

There is no more fresh water on Earth today than there was a million years ago. Yet today, 6 billion people share it. Since 1950, the world population has doubled, but water use has tripled, notes John Dickerson, an analyst and fund manager based in San Diego. Unlike petroleum, he adds, no technological innovation can ever replace water.

China, which is undergoing a vast rural-to-urban population migration, is emblematic of the places where water has become scarce. It has about as much

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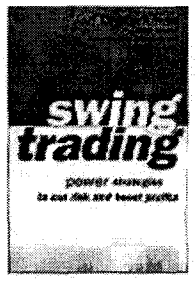


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water as Canada but 100 times more people. Per-capita water reserves are only about a fourth the global average, according to experts. Of its 669 cities, 440 regularly suffer moderate to critical water shortages.

Although not widely appreciated, water has been recognized by conservative investors as an investment opportunity -- and it has rewarded them. Over the past 10 years, the Media General water utilities index is up 133%, double the return of the **Dow Jones Utilities Index** ($UTIL). Over the past five years, water utilities are up 32% -- clobbering the flat returns of both the Dow Jones Utilities and the **Dow Industrials** ($INDU). One of water's key long-term value drivers as an investment, according to Dickerson: Demand is not affected by inflation, recession, interest rates or changing tastes.

Virtually all of the U.S. water utility stocks are regulated by states and counties, which makes them pretty dull. Governmental entities typically give utilities a monopoly in a geographic region, then set their profit margin a smidge above costs. Just about the only distinguishing factor among them are the growth rates of their regions and their ability to efficiently manage their underground pipe and pumping infrastructure. Among the best are **Aqua America** (WTR, news, msgs) of Philadelphia, **Southwest Water** (SWWC, news, msgs) of Los Angeles; **California Water Service Group** (CWT, news, msgs), based in San Jose, Calif.; and **American States Water** (AWR, news, msgs) of San Dimas, Calif.

In a moment, I'll offer a couple of potentially more impactful ways to invest in water, but first let's look a little more broadly at world demand.

## Aquifers in India are being sucked dry

The tsunami has focused attention on water demand in South Asia -- and it's a good thing, as it was already reaching critical status in rural areas. Several decades ago, farmers in the Indian state of Gujarat used oxen to haul water in buckets from a few feet below the surface. Now they pump it from 1,000 feet below the surface. That may sound good, but they have been drawing water from the earth to feed a mushrooming population at such a terrific rate that ancient aquifers have been sucked dry -- turning once-fertile fields slowly into sand.

According to New Scientist magazine, farmers using crude oilfield technology in India have drilled 21 million "tube wells" into the strata beneath the fields, and every year millions more wells throughout the region -- all the way to Vietnam -- are being dug to service water-needy crops like rice and sugar cane. The magazine quoted research from the annual Stockholm Water Symposium that the pumps that transformed Indian farming are drawing 200 cubic kilometers of water to the surface each year, while only a fraction is replaced by monsoon

rains. At this rate, the research suggested, groundwater supplies in some areas will be exhausted in five to 10 years, and millions of Indians will see their farmland turned to desert.

In China, the magazine reported, 30 cubic kilometers more water is being pumped to the surface each year than is replaced by rain -- one of the reasons that the country has become dependent on grain imports from the West. This is not just an issue for agriculture. Earlier this year, the Indian state of Kerala ordered the **PepsiCo** (PEP, news, msgs) and **Coca-Cola** (KO, news, msgs) bottling plants closed due to water shortages, costing the companies millions of dollars.

In this country, shareholder activists already are lobbying companies to share water-dependency concerns worldwide with their stakeholders in their financial statements.

### Water, water everywhere, but . . .

The central problem is that less than 2% of the world's ample store of water is fresh. And that amount is bombarded by industrial pollution, disease and cyclical shifts in rain patterns. Its increasing scarcity has impelled private companies and countries to attempt to lock up rights to key sources. In an article last month, the Christian Science Monitor suggested that the next decade may see a cartel of water-exporting countries rivaling the Organization of Petroleum Exporting Countries for dominance in the world economy.

"Water is blue gold; it's terribly precious," Maude Barlow, chair of the Council of Canadians, told the Monitor. "Not too far in the future, we're going to see a move to surround and commodify the world's fresh water. Just as they've divvied up the world's oil, in the coming century, there's going to be a grab."

Besides the domestic water utilities listed above -- and similarly plodding foreign utilities such as **United Utilities** (UU, news, msgs) of the United Kingdom, which sports a 6.9% dividend yield, and **Suez** (SZE, news, msgs) of France -- investors interested in the sector can consider a number of variant plays. None are extremely exciting, but my guess is that, over the next few years, some more interesting purification technologies will emerge, along with, perhaps, a vibrant attempt at worldwide industry consolidation.

One current idea is Tennessee-based copper pipe and valve maker **Mueller Industries** (MLI, news, msgs), a $1 billion business with a trailing price/earnings multiple of 15 that is still not expensive despite a 47% run-up in the past year. Its leading outside investor is **Berkshire Hathaway** (BRK.A, news, msgs), the

investment vehicle of legendary investor Warren Buffett.

Another is flow-control products maker **Watts Water Technologies** (WTS, news, msgs), which is a little richer at a $975 million market cap and a trailing P/E multiple of 19, but is still owned by several leading value managers, including Mario Gabelli.

And possibly the most interesting is **Consolidated Water** (CWCO, news, msgs), a $160 million company based in the Cayman Islands that specializes in developing and operating ocean-water desalinization plants and water-distribution systems in areas where natural supplies of drinking water are scarce, such as the Caribbean and South America. It currently supplies water to Belize, Barbados, the British Virgin Islands and the Bahamas, and it has expansion plans. It is the most expensive, but it may also have the greatest growth prospects. Of all of these, it is up the most over the past five years, a relatively steady 355%.

Of course, there is one other benefit to water investing: When these companies say they're going to do a dilutive deal, it's not something to worry about.

### Fine Print

Dickerson runs a hedge fund in San Diego strictly focused on water investing, the Summit Water Equity Fund. . . To learn more about Southwest Water, click here. . . . To learn more about California Water Service Group, which runs systems in New Mexico, Hawaii and Washington State, as well as California, click here. . . . To learn more about American States Water, click here. . . To learn more about Mueller, click here, and, for Consolidated Water, click here. . . . Seems like talk is cheap. Since mid-December, the value of the company radio personality Howard Stern is leaving, **Viacom** (VIA.B, news, msgs), has risen 9% while the value of the company he's headed to, **Sirius Satellite Radio** (SIRI, news, msgs), is down 13.5%. . . . For background on the Kobe earthquake, approaching its 10th anniversary, click here and here.

*Jon D. Markman is publisher of StockTactics Advisor, an independent weekly investment newsletter, as well as senior strategist and portfolio manager at Pinnacle Investment Advisors. While he cannot provide personalized investment advice or recommendations, he welcomes column critiques and comments at jon.markman@gmail.com; put COMMENT in the subject line. At the time of publication he held positions in the following stocks mentioned in this column: Coca-Cola.*

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# ATTACHMENT E

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# VALUATION

## MEASURING AND MANAGING THE VALUE OF COMPANIES

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# 10

# Estimating the Cost of Capital

To value a company using enterprise DCF, we discount free cash flow by the weighted average cost of capital (WACC). The weighted average cost of capital represents the opportunity cost that investors face for investing their funds in one particular business instead of others with similar risk.

The most important principle underlying successful implementation of the cost of capital is consistency between the components of WACC and free cash flow. Since free cash flow is the cash flow available to all financial investors (debt, equity, and hybrid securities), the company's WACC must include the required return for each investor. In addition, the duration and risk of the financial securities used to estimate the WACC must match that of the free cash flow being discounted. To assure consistency, the cost of capital must meet several criteria:

- It must include the opportunity costs from *all* sources of capital—debt, equity, and so on—since free cash flow is available to all investors, who expect compensation for the risks they take.
- It must weight each security's required return by its target market-based weight, not by its historical book value.
- It must be computed after corporate taxes (since free cash flow is calculated in after-tax terms). Any financing-related tax shields not included in free cash flow must be incorporated into the cost of capital or valued separately (as done in the adjusted present value).
- It must be denominated in the same currency as free cash flow.
- It must be denominated in nominal terms when cash flows are stated in nominal terms.

For most companies, discounting free cash flow at the WACC is a simple, accurate, and robust method of corporate valuation. If, however, the

since no single model for estimating the market risk premium has gained universal acceptance, we present the results of various models.

Methods to estimate the market risk premium fall in three general categories:

1. Estimating the future risk premium by measuring and extrapolating historical excess returns.
2. Using regression analysis to link current market variables, such as the aggregate dividend-to-price ratio, to project the expected market risk premium.
3. Using DCF valuation, along with estimates of return on investment and growth, to reverse engineer the market's cost of capital.

None of today's models precisely estimate the market risk premium. Still, based on evidence from each of these models, we believe the market risk premium as of year-end 2003 was just under 5 percent.

**Historical market risk premium** Investors, being risk-averse, demand a premium for holding stocks rather than bonds. If the level of risk aversion hasn't changed over the last 75 years, then historical excess returns are a reasonable proxy for future premiums (assuming measurement issues, such as survivorship bias, aren't overly problematic). To best measure the risk premium using historical data, follow these guidelines:

- Calculate the premium relative to long-term government bonds.
- Use the longest period possible.
- Use an arithmetic average of longer-dated intervals (such as five years).
- Adjust the result for econometric issues, such as survivorship bias.

*Use long-term government bonds* When calculating the market risk premium, compare historical market returns with the return on 10-year government bonds. As discussed in the previous section, long-term government bonds better match the duration of a company's cash flows than do short-term bonds.

*Use the longest period possible* When using historical observations to predict future results, the issue is what length of history to examine. If the market risk premium is stable, a longer history will reduce estimation error. Alternatively, if the premium changes and estimation error is small, a shorter period is better. To determine the appropriate historical period, we consider any trends in the market risk premium compared with the noise associated with short-term estimates.

To test for the presence of a long-term trend, we regress the U.S. market risk premium versus time. Over the last 100 years, no statistically significant trend is observable.[7] Based on regression results, the average excess return has fallen by 3.3 basis points a year, but this result is well below its standard error (leading to a low $t$-statistic). In addition, premiums calculated over subperiods, even as long as 10 years, are extremely noisy. For instance, U.S. stocks outperformed bonds by 18 percent in the 1950s but offered no premium in the 1970s. Given the lack of any discernible trend and the significant volatility of shorter periods, you should use the longest time series possible.

*Use arithmetic average of longer-dated intervals* When reporting market risk premiums, most data providers report an annual number, such as 6.2 percent per year. But how do they convert a century of data into an annual number? And is an annualized number even important?

Annual returns can be calculated using either an arithmetic average or a geometric average. An arithmetic (simple) average sums each year's observed premium and divides by the number of observations:

$$\text{Arithmetic Average} = \frac{1}{T}\sum_{t=1}^{T}\frac{1+R_m(t)}{1+r_f(t)} - 1$$

A geometric average compounds each year's excess return and takes the root of the resulting product:

$$\text{Geometric Average} = \left(\prod_{t=1}^{T}\frac{1+R_m(t)}{1+r_f(t)}\right)^{1/T} - 1$$

The choice of averaging methodology will affect the results. For instance, between 1903 and 2002, U.S. stocks outperformed long-term government bonds by 6.2 percent per year when averaged arithmetically. Using a geometric average, the number drops to 4.4 percent. This difference is not random; arithmetic averages always exceed geometric averages when returns are volatile.

So which averaging method on historical data best estimates the *expected* future rate of return? To estimate the mean (expectation) for any random variable, well-accepted statistical principles dictate that the arithmetic average is the best unbiased estimator. Therefore, to determine a security's

[7] Some authors, such as Lewellen, argue that the market risk premium does change over time—and can be measured using financial ratios, such as the dividend yield. We address these models separately. J. Lewellen, "Predicting Returns with Financial Ratios," *Journal of Financial Economics*, 74(2) (2004): 209–235.

expected return for one period, the best unbiased predictor is the arithmetic average of many one-period returns. A one-period risk premium, however, can't value a company with many years of cash flow. Instead, long-dated cash flows must be discounted using a compounded rate of return. But when compounded, the arithmetic average will be *biased* upward (too high).

This bias is caused by estimation error and autocorrelation in returns. Let's examine the effect of estimation error first. To estimate the mean of a distribution, statistical theory instructs you to average the observations. In a finite sample, the sample average ($R_A$) will equal the true mean ($\mu$) plus an error term ($\varepsilon$):

$$R_A = \mu + \varepsilon$$

Sometimes the error term is positive, so the sample average overestimates the true mean, and at other times, the error term is negative. But the average error term equals 0, so the sample average is an unbiased estimator of the true mean.

To value a cash flow *beyond* one period, we must determine the discount factor by raising $R_A$ to a given power. For instance, to estimate a two-period discount rate, we calculate $R_A$ squared. Squaring $R_A$ leads to the following equation:

$$R_A = (\mu + \varepsilon)^2 = \mu^2 + \varepsilon^2 + 2\mu\varepsilon$$

Since the true mean, $\mu$, is a constant and the expectation of $\varepsilon$ is 0, the expectation of $2\mu\varepsilon$ equals 0. The expectation of $\varepsilon^2$, however, is not 0, but a positive number (the square of any nonzero number is greater than zero). Therefore, $R_A^2$ will be greater than $\mu^2$ (the true mean squared), and a compounded sample average will be too high.

The compounded arithmetic average will also be biased upward when returns are negatively autocorrelated (meaning low returns follow high returns and high returns follow low returns). Although there is disagreement in the academic community, the general consensus is that the aggregate stock market exhibits negative autocorrelation.[8] In this case, the arithmetic mean is biased upward.

[8] Empirical evidence presented by James Poterba, Lawrence Summers, and others indicates that a significant long-term negative autocorrelation exists in stock returns. See J. Poterba and L. Summers, "Mean Reversion in Stock Prices," *Journal of Financial Economics* (October 1988): 27–60. However, subsequent studies by Matthew Richardson and others challenge the statistical significance of earlier studies. See M. Richardson, "Temporary Components of Stock Prices: A Skeptic's View," *Journal of Business and Economic Statistics*, 11 (1993): 199–207.

**Exhibit 10.4 Expected Value When Returns Exhibit Negative Autocorrelation**

| Potential return | Unconditional probability |
|---|---|
| 20% | 50% |
| (10%) | 50% |

| Scenario | Current value | Return in period one | Return in period two | Future value | Expected value when returns are independent | | Expected value when returns are negatively autocorrelated | |
|---|---|---|---|---|---|---|---|---|
| 1 | 100 | 1.2 | 1.2 | 144 | 25% | 36.0 | 15% | 21.6 |
| 2 | 100 | 1.2 | 0.9 | 108 | 25% | 27.0 | 35% | 37.8 |
| 3 | 100 | 0.9 | 1.2 | 108 | 25% | 27.0 | 35% | 37.8 |
| 4 | 100 | 0.9 | 0.9 | 81 | 25% | 20.3 | 15% | 12.2 |
| | | | | | 100% | 110.3 | 100% | 109.4 |

To better understand the effect of negative autocorrelation, consider a portfolio that can either grow by 20 percent or fall by 10 percent in a given period (see Exhibit 10.4). Since both returns are equally likely, the one period average return equals 5 percent. In addition, if returns are independently and identically distributed, after two periods there is:

1. A 25 percent probability that an initial investment of $100 will grow to $144
2. A 50 percent probability (two equally probable scenarios) that $100 will grow to $108
3. A 25 percent probability that $100 will shrink to $81

The expected value in two periods equals $110.3, the same as if $100 had grown consistently at the *arithmetic* average of 5 percent for two periods. But if the four scenarios are not equally likely, the expected value in two periods will not equal $110.3. For instance, if there is a 70 percent probability that low returns will be followed by high returns (or vice versa), the expected value in two periods is only $109.4. In this case, compounding the arithmetic mean will lead to an upward bias in expected return.

To correct for the bias caused by estimation error and negative autocorrelation in returns, we have two choices. First, we can calculate multiperiod holding returns directly from the data, rather than compound single-period averages. Using this method, a cash flow received in five years will be discounted by the average five-year market risk premium, not by the annual

**Exhibit 10.5 Cumulative Returns for Various Intervals, 1903–2002**

percent

| | | Cumulative returns | | | Annualized returns | |
|---|---|---|---|---|---|---|
| Arithmetic mean of | Number of observations | U.S. stocks | U.S. government bonds | U.S. excess return | U.S. excess returns | Blume estimator |
| 1-year holding periods | 100 | 11.3 | 5.3 | 6.2 | 6.2 | 6.2 |
| 2-year holding periods | 50 | 24.1 | 10.9 | 12.6 | 6.1 | 6.1 |
| 4-year holding periods | 25 | 49.9 | 23.7 | 23.0 | 5.3 | 6.0 |
| 5-year holding periods | 20 | 68.2 | 29.5 | 32.3 | 5.8 | 5.9 |
| 10-year holding periods | 10 | 165.6 | 72.1 | 70.1 | 5.3 | 5.6 |

Source: Ibbotson Associates, Morningstar analysis.

market risk premium compounded five times.[9] In Exhibit 10.5, we present arithmetic averages for holding periods of 1, 2, 4, 5, and 10 years. To avoid placing too little weight on either early or recent observations, we use nonoverlapping returns. The downside of this method is that 5- and 10-year holding periods have very few observations. As shown in the exhibit, the annualized excess return trends downward from 6.2 percent to 5.5 percent as the length of the holding period increases.

Alternatively, researchers have used simulation to show that an estimator proposed by Marshall Blume best adjusts for problems caused by estimation error and autocorrelation of returns:[10]

$$R = \frac{T-N}{T-1} R_A + \frac{N-1}{T-1} R_G$$

where $T$ = Number of historical observations
$N$ = Forecast period
$R_A$ = Arithmetic average
$R_G$ = Geometric average

In the last column of Exhibit 10.5, we report Blume's estimate for the market risk premium. Blume's method generates the same downward-trending estimate of the market risk premium (albeit more smoothly than the raw holding period averages). Based on both estimation techniques, it appears 5.5 percent is a reasonable approximation for *historical* excess returns.

[9] Jay Ritter writes, "There is no theoretical reason why one year is the appropriate holding period. People are used to thinking of interest rates as a rate per year, so reporting annualized numbers makes it easy for people to focus on the numbers. But I can think of no reason other than convenience for the use of annual returns." J. Ritter, "The Biggest Mistakes We Teach," *Journal of Financial Research*, 25 (2002): 159–168.

[10] D. C. Indro and W. Y. Lee, "Biases in Arithmetic and Geometric Averages Premia," *Financial Management*, 26(4) (Winter 1997); M. E. Blume, "Unbiased Estimators of Long Run Expected Rates of Return," *Journal of the American Statistical Association*, 69(347) (September 1974).

*Survivorship bias* Other statistical difficulties exist with historical risk premiums. According to one argument,[11] even properly measured historical premiums can't predict future returns, because the observable sample will include only countries with strong historical returns. Statisticians refer to this phenomenon as survivorship bias. The U.S. market outperformed all others during the twentieth century, averaging 4.3 percent in real terms (deflating by the wholesale price index) versus a median of 0.8 percent for other countries.[12] A concurring study[13] notes that the −100 percent returns from China, Russia, and Poland are too often ignored in discussions of stock market performance.

Since it is unlikely that the U.S. stock market will replicate its performance over the next century, we adjust downward the historical arithmetic average market risk premium. Using data from Philippe Jorion and William Goetzmann, we find that between 1926 and 1996, the U.S. arithmetic annual return exceeded the median return on a set of 11 countries with continuous histories dating to the 1920s by 1.9 percent in real terms, or 1.4 percent in nominal terms. If we subtract a 1 percent to 2 percent survivorship bias from the long-term arithmetic average of 5.5 percent, the difference implies the future range of the U.S. market risk premium should be 3.5 to 4.5 percent.

**Market risk premium regressions** Although we find no long-term trend in the historical risk premium, many argue that the market risk premium is predictable using observable variables, such as the aggregate dividend-to-price ratio, the aggregate book-to-market ratio, or the aggregate ratio of earnings to price.

The use of current financial ratios to estimate the expected return on stocks is well documented and dates back to Charles Dow in the 1920s. The concept has been tested by many authors.[14] To predict the market risk premium using financial ratios, excess market returns are regressed against a financial ratio, such as the market's aggregate dividend-to-price ratio:

$$R_m - r_f = \alpha + \beta \ ln\left(\frac{\text{Dividend}}{\text{Price}}\right) + \varepsilon$$

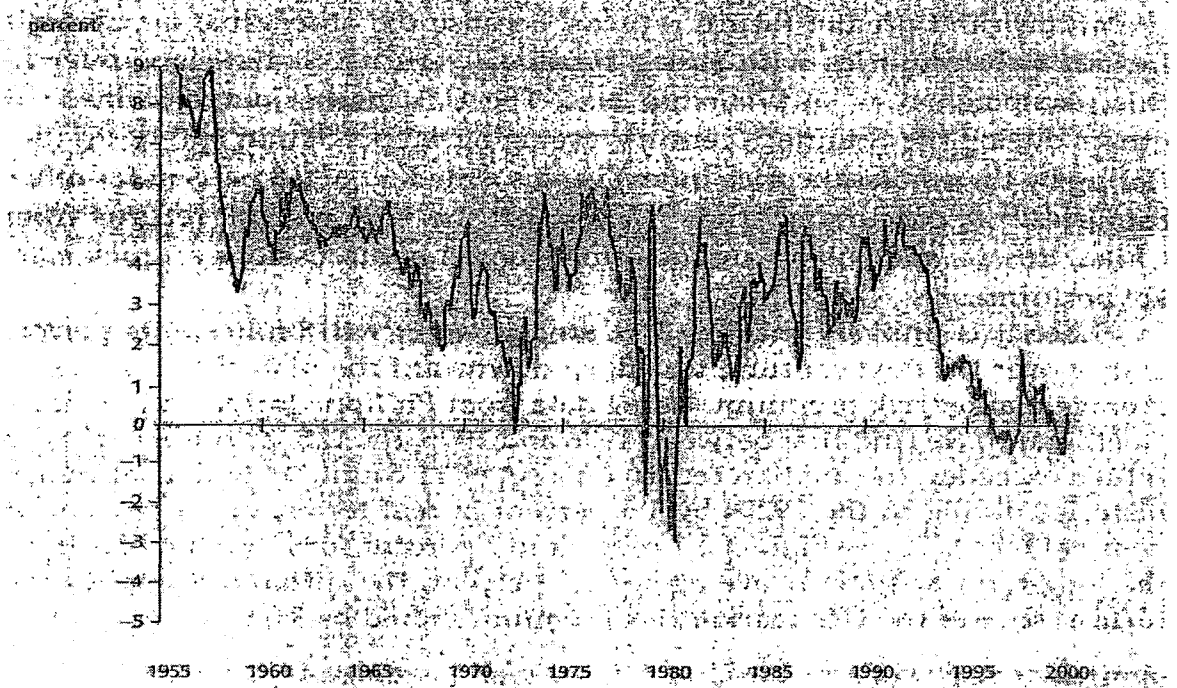
[11] S. Brown, W. Goetzmann, and S. Ross, "Survivorship Bias," *Journal of Finance* (July 1995): 853–873.

[12] P. Jorion and W. Goetzmann, "Global Stock Markets in the Twentieth Century," *Journal of Finance*, 54(3) (June 1999): 953–974.

[13] Elroy Dimson, Paul Marsh, and Michael Staunton, *Triumph of the Optimists* (Princeton: Princeton University Press, 2002).

[14] E. Fama and K. French, "Dividend Yields and Expected Stock Returns," *Journal of Financial Economics*, 22(1) (1988): 3–25; R. F. Stambaugh, "Predictive Regressions," *Journal of Financial Economics*, 54(3) (1999): 375–421; and J. Lewellen, "Predicting Returns with Financial Ratios," *Journal of Financial Economics*, 74(2) (2004): 209–235.

Exhibit 10.6 Expected Market Risk Premium Based on Dividend Yield




Source: Lewellen (2004); Goyal and Welch (2003); McKinsey analysis.

Using advanced regression techniques unavailable to earlier authors, Jonathan Lewellen found that dividend yields *do* predict future market returns. But as shown in Exhibit 10.6, the model has a major drawback: the risk premium prediction can be negative (as it was in the late 1990s). Other authors question the explanatory power of financial ratios, arguing that a financial analyst relying solely on data available at the time would have done better using unconditional historical averages (as we did in the last section) in place of more sophisticated regression techniques.[15]

**Forward-looking models** A stock's price equals the present value of its dividends. Assuming dividends are expected to grow at a constant rate, we can rearrange the growing perpetuity to solve for the market's expected return:

$$P = \frac{\text{DIV}}{k_e - g} \quad \text{converts to} \quad k_e = \frac{\text{DIV}}{P} + g$$

In the previous section, we reviewed regression models that compare market returns ($k_e$) to the dividend-price ratio (DIV/$P$). Using a simple re-

[15] A. Goyal and I. Welch, "Predicting the Equity Premium with Dividend Ratios," *Management Science*, 4, 9(5) (2003): 639–654.

gression, however, ignores valuable information and oversimplifies a few market realities. First, the dividend-price yield itself depends on the expected growth in dividends ($g$), which simple regressions ignore (the regression's intercept is determined by the data). Second, dividends are only one form of corporate payout. Companies can use free cash flow to repurchase shares or hold excess cash for significant periods of time; consider Microsoft, which accumulated more than $50 billion in liquid securities before paying its first dividend.

Using the principles of discounted cash flow, along with estimates of growth, various authors have attempted to reverse engineer the market risk premium. Two studies used analyst forecasts to estimate growth,[16] but many argue that analyst forecasts focus on the short term and are severely upward biased. Fama and French use long-term dividend growth rates as a proxy for future growth, but they focus on dividend yields, not on available cash flow.[17] Alternatively, our own research has focused on *all* cash flow available to equity holders, as measured by a modified version of the key value driver formula (detailed in Chapter 3):[18]

$$k_e = \frac{\text{Earnings}\left(1 - \frac{g}{\text{ROE}}\right)}{P} + g \quad \text{such that } \text{CF}_e = \text{Earnings}\left(1 - \frac{g}{\text{ROE}}\right)$$

Based on this formula, we used the long-run return on equity (13 percent) and the long-run growth in real GDP (3.5 percent) to convert a given year's S&P 500 median earnings-to-price ratio into the cost of equity.[19]

Exhibit 10.7 on page 306 plots the nominal and real expected market returns between 1962 and 2002. The results are striking. After stripping out inflation, the expected market return (*not* excess return) is remarkably constant, averaging 7.0 percent. For the United Kingdom, the real market return is slightly more volatile, averaging 6.0 percent. Based on these results, we estimate the current market risk premium by subtracting the current real long-term risk-free rate from the real equity return of 7.0 percent (for U.S. markets). At year-end 2003, the yield on a U.S. Treasury inflation-protected security (TIPS) equaled 2.1 percent. Subtracting 2.1

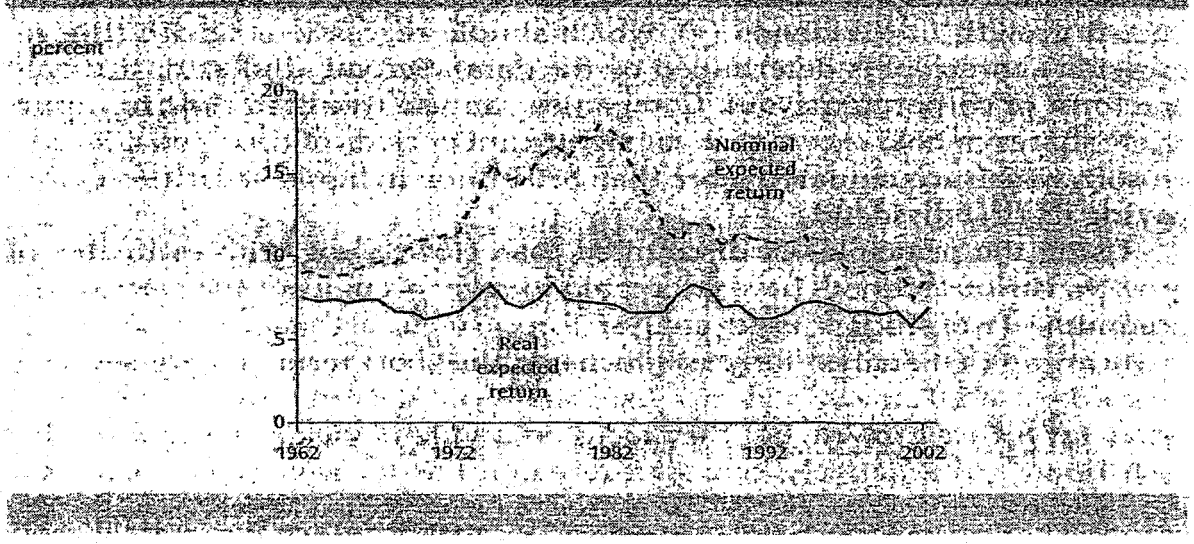
[16] J. Claus and J. Thomas, "Equity Premia as Low as Three Percent? Evidence from Analysts' Earnings Forecasts for Domestic and International Stocks," *Journal of Finance*, 56(5) (October 2001): 1629–1666; and W. R. Gebhardt, C. M. C. Lee, and B. Swaminathan, "Toward an Implied Cost of Capital," *Journal of Accounting Research*, 39(1) (2001): 135–176.

[17] Eugene F. Fama and Kenneth R. French, "The Equity Premium," Center for Research in Security Prices Working Paper No. 522 (April 2001).

[18] Marc H. Goedhart, Timothy M. Koller, and Zane D. Williams, "The Real Cost of Equity," *McKinsey on Finance* (Autumn 2002): 11–15.

[19] Using a two-stage model (i.e., short-term ROE and growth rate projections, followed by long-term estimates) did not change the results in a meaningful way.

Exhibit 10.7 Real and Nominal Expected Market Returns




percent from 7.0 percent gives an estimate of the risk premium at just under 5 percent.

Although many in the finance profession disagree about how to measure the market risk premium, we believe 4.5 to 5.5 percent is an appropriate range. Historical estimates found in most textbooks (and locked in the mind of many), which often report numbers near 8 percent, are too high for valuation purposes because they compare the market risk premium versus short-term bonds, use only 75 years of data, and are biased by the historical strength of the U.S. market.

**Estimating beta** According to the CAPM, a stock's expected return is driven by beta, which measures how much the stock and market move together. Since beta cannot be observed directly, we must *estimate* its value. To do this, we first measure a raw beta using regression and then improve the estimate by using industry comparables and smoothing techniques. The most common regression used to estimate a company's raw beta is the market model:

$$R_i = \alpha + \beta R_m + \varepsilon$$

In the market model, the stock's return (not price) is regressed against the market's return.

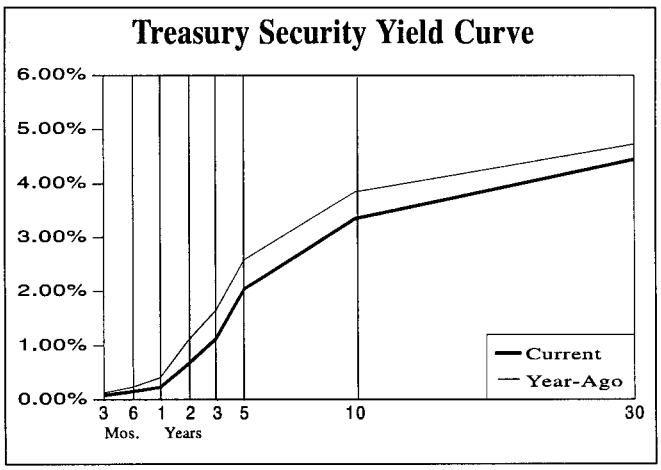
In Exhibit 10.8, we plot 60 months of Home Depot stock returns versus S&P 500 returns between 1999 and 2003. The solid line represents the "best

# ATTACHMENT F

# Selected Yields

| | Recent (3/23/11) | 3 Months Ago (12/21/10) | Year Ago (3/24/10) |
|---|---|---|---|
| **TAXABLE** | | | |
| **Market Rates** | | | |
| Discount Rate | 0.75 | 0.75 | 0.75 |
| Federal Funds | 0.00-0.25 | 0.00-0.25 | 0.00-0.25 |
| Prime Rate | 3.25 | 3.25 | 3.25 |
| 30-day CP (A1/P1) | 0.28 | 0.26 | 0.15 |
| 3-month LIBOR | 0.31 | 0.30 | 0.28 |
| **Bank CDs** | | | |
| 6-month | 0.30 | 0.30 | 0.25 |
| 1-year | 0.48 | 0.49 | 0.44 |
| 5-year | 1.71 | 1.52 | 1.99 |
| **U.S. Treasury Securities** | | | |
| 3-month | 0.08 | 0.13 | 0.13 |
| 6-month | 0.15 | 0.19 | 0.23 |
| 1-year | 0.23 | 0.28 | 0.41 |
| 5-year | 2.05 | 1.95 | 2.59 |
| 10-year | 3.35 | 3.30 | 3.85 |
| 10-year (inflation-protected) | 0.95 | 0.98 | 1.61 |
| 30-year | 4.45 | 4.42 | 4.73 |
| 30-year Zero | 4.79 | 4.72 | 5.00 |

| | Recent (3/23/11) | 3 Months Ago (12/21/10) | Year Ago (3/24/10) |
|---|---|---|---|
| **Mortgage-Backed Securities** | | | |
| GNMA 5.5% | 2.60 | 2.83 | 1.90 |
| FHLMC 5.5% (Gold) | 3.18 | 3.16 | 1.30 |
| FNMA 5.5% | 3.06 | 3.01 | 1.85 |
| FNMA ARM | 2.63 | 2.80 | 2.93 |
| **Corporate Bonds** | | | |
| Financial (10-year) A | 4.63 | 4.75 | 5.18 |
| Industrial (25/30-year) A | 5.46 | 5.49 | 5.80 |
| Utility (25/30-year) A | 5.50 | 5.74 | 5.93 |
| Utility (25/30-year) Baa/BBB | 5.98 | 6.11 | 6.40 |
| **Foreign Bonds (10-Year)** | | | |
| Canada | 3.21 | 3.14 | 3.54 |
| Germany | 3.24 | 2.99 | 3.08 |
| Japan | 1.23 | 1.18 | 1.35 |
| United Kingdom | 3.55 | 3.51 | 3.98 |
| **Preferred Stocks** | | | |
| Utility A | 6.00 | 5.79 | 5.42 |
| Financial A | 6.10 | 6.57 | 5.68 |
| Financial Adjustable A | 5.47 | 5.47 | 5.47 |




| | Recent (3/23/11) | 3 Months Ago (12/21/10) | Year Ago (3/24/10) |
|---|---|---|---|
| **TAX-EXEMPT** | | | |
| **Bond Buyer Indexes** | | | |
| 20-Bond Index (GOs) | 4.86 | 5.15 | 4.32 |
| 25-Bond Index (Revs) | 5.50 | 5.48 | 4.92 |
| **General Obligation Bonds (GOs)** | | | |
| 1-year Aaa | 0.33 | 0.41 | 0.30 |
| 1-year A | 1.19 | 1.35 | 1.12 |
| 5-year Aaa | 1.72 | 1.72 | 1.49 |
| 5-year A | 2.67 | 2.88 | 2.48 |
| 10-year Aaa | 3.16 | 3.41 | 3.02 |
| 10-year A | 4.29 | 4.47 | 4.04 |
| 25/30-year Aaa | 4.75 | 4.88 | 4.44 |
| 25/30-year A | 6.08 | 5.90 | 5.48 |
| **Revenue Bonds (Revs) (25/30-Year)** | | | |
| Education AA | 5.15 | 5.25 | 4.77 |
| Electric AA | 5.28 | 5.27 | 4.75 |
| Housing AA | 6.10 | 6.13 | 5.57 |
| Hospital AA | 5.61 | 5.43 | 5.08 |
| Toll Road Aaa | 5.30 | 5.32 | 4.81 |

# Federal Reserve Data

**BANK RESERVES**

*(Two-Week Period; in Millions, Not Seasonally Adjusted)*

| | Recent Levels | | | Average Levels Over the Last... | | |
|---|---|---|---|---|---|---|
| | 3/9/11 | 2/23/11 | Change | 12 Wks. | 26 Wks. | 52 Wks. |
| Excess Reserves | 1295731 | 1217540 | 78191 | 1096037 | 1036724 | 1044399 |
| Borrowed Reserves | 20423 | 22001 | -1578 | 32257 | 40916 | 57375 |
| Net Free/Borrowed Reserves | 1275308 | 1195539 | 79769 | 1063780 | 995808 | 987024 |

**MONEY SUPPLY**

*(One-Week Period; in Billions, Seasonally Adjusted)*

| | Recent Levels | | | Growth Rates Over the Last... | | |
|---|---|---|---|---|---|---|
| | 3/7/11 | 2/28/11 | Change | 3 Mos. | 6 Mos. | 12 Mos. |
| M1 (Currency+demand deposits) | 1868.0 | 1898.9 | -30.9 | 11.0% | 12.9% | 9.6% |
| M2 (M1+savings+small time deposits) | 8918.7 | 8909.0 | 9.7 | 5.6% | 5.5% | 4.7% |

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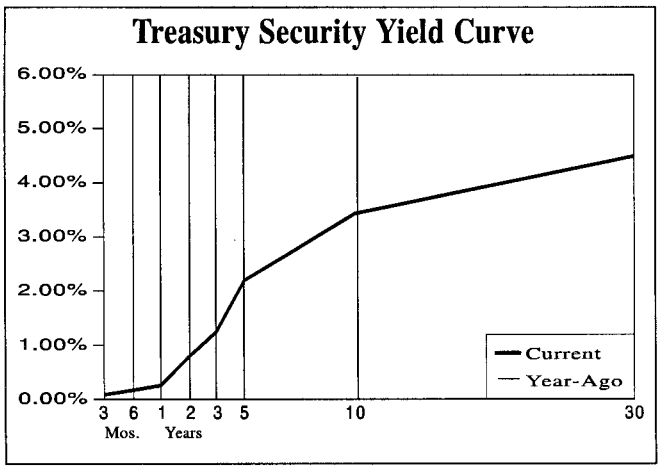
# Selected Yields

| | Recent (3/30/11) | 3 Months Ago (12/29/10) | Year Ago (3/31/10) |
|---|---|---|---|
| **TAXABLE** | | | |
| **Market Rates** | | | |
| Discount Rate | 0.75 | 0.75 | 0.75 |
| Federal Funds | 0.00-0.25 | 0.00-0.25 | 0.00-0.25 |
| Prime Rate | 3.25 | 3.25 | 3.25 |
| 30-day CP (A1/P1) | 0.22 | 0.28 | 0.14 |
| 3-month LIBOR | 0.30 | 0.30 | 0.29 |
| **Bank CDs** | | | |
| 6-month | 0.29 | 0.30 | 0.25 |
| 1-year | 0.47 | 0.48 | 0.44 |
| 5-year | 1.71 | 1.55 | 1.99 |
| **U.S. Treasury Securities** | | | |
| 3-month | 0.09 | 0.12 | 0.15 |
| 6-month | 0.17 | 0.19 | 0.23 |
| 1-year | 0.26 | 0.27 | 0.38 |
| 5-year | 2.20 | 2.03 | 2.54 |
| 10-year | 3.44 | 3.35 | 3.83 |
| 10-year (inflation-protected) | 0.98 | 1.02 | 1.56 |
| 30-year | 4.50 | 4.43 | 4.71 |
| 30-year Zero | 4.79 | 4.71 | 4.98 |




| | Recent (3/30/11) | 3 Months Ago (12/29/10) | Year Ago (3/31/10) |
|---|---|---|---|
| **Mortgage-Backed Securities** | | | |
| GNMA 5.5% | 2.68 | 3.08 | 2.50 |
| FHLMC 5.5% (Gold) | 3.28 | 3.13 | 2.04 |
| FNMA 5.5% | 3.17 | 2.94 | 2.26 |
| FNMA ARM | 2.63 | 2.80 | 2.76 |
| **Corporate Bonds** | | | |
| Financial (10-year) A | 4.70 | 4.76 | 5.24 |
| Industrial (25/30-year) A | 5.50 | 5.50 | 5.76 |
| Utility (25/30-year) A | 5.56 | 5.78 | 5.92 |
| Utility (25/30-year) Baa/BBB | 6.06 | 6.10 | 6.37 |
| **Foreign Bonds (10-Year)** | | | |
| Canada | 3.29 | 3.16 | 3.57 |
| Germany | 3.34 | 3.02 | 3.09 |
| Japan | 1.25 | 1.17 | 1.40 |
| United Kingdom | 3.67 | 3.57 | 3.94 |
| **Preferred Stocks** | | | |
| Utility A | 5.70 | 5.79 | 5.91 |
| Financial A | 6.02 | 6.48 | 6.64 |
| Financial Adjustable A | 5.48 | 5.48 | 5.48 |
| **TAX-EXEMPT** | | | |
| **Bond Buyer Indexes** | | | |
| 20-Bond Index (GOs) | 4.91 | 5.00 | 4.44 |
| 25-Bond Index (Revs) | 5.52 | 4.52 | 4.93 |
| **General Obligation Bonds (GOs)** | | | |
| 1-year Aaa | 0.33 | 0.44 | 0.39 |
| 1-year A | 1.15 | 1.36 | 1.19 |
| 5-year Aaa | 1.76 | 1.74 | 1.80 |
| 5-year A | 2.75 | 2.88 | 2.71 |
| 10-year Aaa | 3.29 | 3.44 | 3.27 |
| 10-year A | 4.37 | 4.39 | 4.22 |
| 25/30-year Aaa | 4.80 | 4.90 | 4.46 |
| 25/30-year A | 6.08 | 5.90 | 5.24 |
| **Revenue Bonds (Revs) (25/30-Year)** | | | |
| Education AA | 5.15 | 5.27 | 4.81 |
| Electric AA | 5.28 | 5.28 | 4.79 |
| Housing AA | 6.13 | 6.11 | 5.72 |
| Hospital AA | 5.61 | 5.45 | 5.17 |
| Toll Road Aaa | 5.32 | 5.33 | 4.80 |

# Federal Reserve Data

**BANK RESERVES**

*(Two-Week Period; in Millions, Not Seasonally Adjusted)*

| | Recent Levels | | | Average Levels Over the Last... | | |
|---|---|---|---|---|---|---|
| | 3/23/11 | 3/9/11 | Change | 12 Wks. | 26 Wks. | 52 Wks. |
| Excess Reserves | 1366438 | 1295729 | 70709 | 1144835 | 1062407 | 1051928 |
| Borrowed Reserves | 19926 | 20423 | -497 | 28576 | 38415 | 54362 |
| Net Free/Borrowed Reserves | 1346512 | 1275306 | 71206 | 1116259 | 1023993 | 997566 |

**MONEY SUPPLY**

*(One-Week Period; in Billions, Seasonally Adjusted)*

| | Recent Levels | | | Growth Rates Over the Last... | | |
|---|---|---|---|---|---|---|
| | 3/14/11 | 3/7/11 | Change | 3 Mos. | 6 Mos. | 12 Mos. |
| M1 (Currency+demand deposits) | 1864.8 | 1868.0 | -3.2 | 8.5% | 10.1% | 8.3% |
| M2 (M1+savings+small time deposits) | 8893.5 | 8918.7 | -25.2 | 3.8% | 4.6% | 4.5% |

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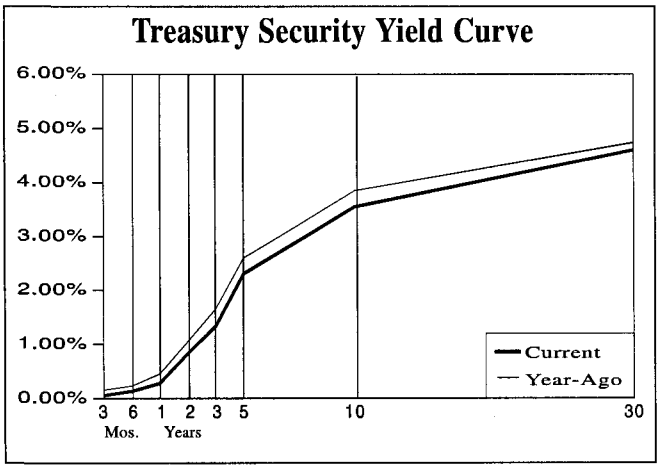
# Selected Yields

| | Recent (4/06/11) | 3 Months Ago (1/05/11) | Year Ago (4/07/10) |
|---|---|---|---|
| **TAXABLE** | | | |
| **Market Rates** | | | |
| Discount Rate | 0.75 | 0.75 | 0.75 |
| Federal Funds | 0.00-0.25 | 0.00-0.25 | 0.00-0.25 |
| Prime Rate | 3.25 | 3.25 | 3.25 |
| 30-day CP (A1/P1) | 0.27 | 0.29 | 0.18 |
| 3-month LIBOR | 0.29 | 0.30 | 0.30 |
| **Bank CDs** | | | |
| 6-month | 0.29 | 0.30 | 0.25 |
| 1-year | 0.47 | 0.48 | 0.44 |
| 5-year | 1.71 | 1.57 | 1.99 |
| **U.S. Treasury Securities** | | | |
| 3-month | 0.06 | 0.14 | 0.16 |
| 6-month | 0.13 | 0.18 | 0.23 |
| 1-year | 0.28 | 0.28 | 0.45 |
| 5-year | 2.31 | 2.14 | 2.60 |
| 10-year | 3.55 | 3.47 | 3.85 |
| 10-year (inflation-protected) | 0.96 | 1.02 | 1.52 |
| 30-year | 4.60 | 4.54 | 4.74 |
| 30-year Zero | 4.92 | 4.84 | 5.00 |

| | Recent (4/06/11) | 3 Months Ago (1/05/11) | Year Ago (4/07/10) |
|---|---|---|---|
| **Mortgage-Backed Securities** | | | |
| GNMA 5.5% | 2.84 | 2.86 | 2.66 |
| FHLMC 5.5% (Gold) | 3.46 | 3.19 | 1.96 |
| FNMA 5.5% | 3.40 | 3.05 | 2.25 |
| FNMA ARM | 2.62 | 2.72 | 2.76 |
| **Corporate Bonds** | | | |
| Financial (10-year) A | 4.85 | 4.89 | 5.24 |
| Industrial (25/30-year) A | 5.59 | 5.59 | 5.76 |
| Utility (25/30-year) A | 5.66 | 5.86 | 5.91 |
| Utility (25/30-year) Baa/BBB | 6.16 | 6.19 | 6.35 |
| **Foreign Bonds (10-Year)** | | | |
| Canada | 3.42 | 3.28 | 3.63 |
| Germany | 3.43 | 2.94 | 3.12 |
| Japan | 1.30 | 1.16 | 1.41 |
| United Kingdom | 3.76 | 3.55 | 4.06 |
| **Preferred Stocks** | | | |
| Utility A | 5.89 | 5.79 | 6.00 |
| Financial A | 5.84 | 6.48 | 6.63 |
| Financial Adjustable A | 5.48 | 5.48 | 5.48 |




| | Recent (4/06/11) | 3 Months Ago (1/05/11) | Year Ago (4/07/10) |
|---|---|---|---|
| **TAX-EXEMPT** | | | |
| **Bond Buyer Indexes** | | | |
| 20-Bond Index (GOs) | 5.00 | 4.95 | 4.44 |
| 25-Bond Index (Revs) | 5.56 | 5.38 | 4.94 |
| **General Obligation Bonds (GOs)** | | | |
| 1-year Aaa | 0.37 | 0.40 | 0.38 |
| 1-year A | 1.21 | 1.37 | 1.18 |
| 5-year Aaa | 1.85 | 1.75 | 1.86 |
| 5-year A | 2.84 | 2.95 | 2.81 |
| 10-year Aaa | 3.41 | 3.40 | 3.31 |
| 10-year A | 4.48 | 4.41 | 4.29 |
| 25/30-year Aaa | 4.84 | 4.90 | 4.46 |
| 25/30-year A | 6.13 | 5.92 | 5.51 |
| **Revenue Bonds (Revs) (25/30-Year)** | | | |
| Education AA | 5.19 | 5.29 | 4.78 |
| Electric AA | 5.30 | 5.28 | 4.79 |
| Housing AA | 6.19 | 6.13 | 5.73 |
| Hospital AA | 5.65 | 5.43 | 5.19 |
| Toll Road Aaa | 5.34 | 5.33 | 4.78 |

# Federal Reserve Data

**BANK RESERVES**

*(Two-Week Period; in Millions, Not Seasonally Adjusted)*

| | Recent Levels | | | Average Levels Over the Last... | | |
|---|---|---|---|---|---|---|
| | 3/23/11 | 3/9/11 | Change | 12 Wks. | 26 Wks. | 52 Wks. |
| Excess Reserves | 1366439 | 1295729 | 70710 | 1144835 | 1062407 | 1051928 |
| Borrowed Reserves | 19926 | 20423 | -497 | 28576 | 38415 | 54362 |
| Net Free/Borrowed Reserves | 1346513 | 1275306 | 71207 | 1116259 | 1023993 | 997566 |

**MONEY SUPPLY**

*(One-Week Period; in Billions, Seasonally Adjusted)*

| | Recent Levels | | | Growth Rates Over the Last... | | |
|---|---|---|---|---|---|---|
| | 3/21/11 | 3/14/11 | Change | 3 Mos. | 6 Mos. | 12 Mos. |
| M1 (Currency+demand deposits) | 1889.4 | 1864.8 | 24.6 | 12.6% | 13.6% | 9.8% |
| M2 (M1+savings+small time deposits) | 8895.4 | 8893.5 | 1.9 | 3.6% | 4.5% | 4.5% |

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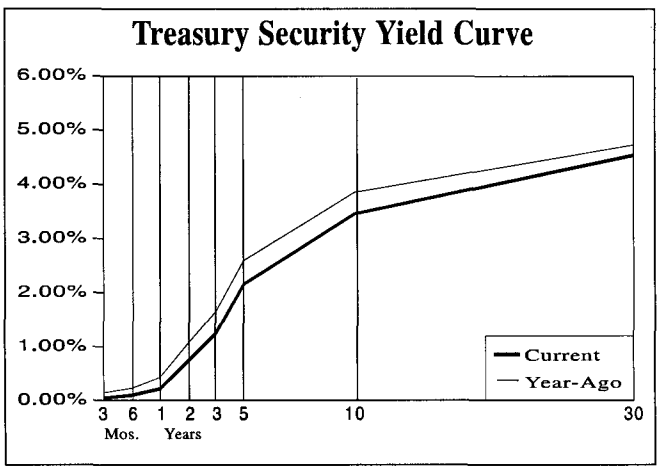
# Selected Yields

| | Recent (4/13/11) | 3 Months Ago (1/12/11) | Year Ago (4/14/10) |
|---|---|---|---|
| **TAXABLE** | | | |
| **Market Rates** | | | |
| Discount Rate | 0.75 | 0.75 | 0.75 |
| Federal Funds | 0.00-0.25 | 0.00-0.25 | 0.00-0.25 |
| Prime Rate | 3.25 | 3.25 | 3.25 |
| 30-day CP (A1/P1) | 0.23 | 0.27 | 0.20 |
| 3-month LIBOR | 0.28 | 0.30 | 0.30 |
| **Bank CDs** | | | |
| 6-month | 0.29 | 0.30 | 0.25 |
| 1-year | 0.47 | 0.48 | 0.43 |
| 5-year | 1.71 | 1.57 | 1.99 |
| **U.S. Treasury Securities** | | | |
| 3-month | 0.05 | 0.14 | 0.15 |
| 6-month | 0.10 | 0.17 | 0.23 |
| 1-year | 0.22 | 0.26 | 0.43 |
| 5-year | 2.17 | 1.98 | 2.60 |
| 10-year | 3.46 | 3.37 | 3.86 |
| 10-year (inflation-protected) | 0.84 | 0.93 | 1.51 |
| 30-year | 4.54 | 4.53 | 4.73 |
| 30-year Zero | 4.88 | 4.86 | 4.99 |




| | Recent (4/13/11) | 3 Months Ago (1/12/11) | Year Ago (4/14/10) |
|---|---|---|---|
| **Mortgage-Backed Securities** | | | |
| GNMA 5.5% | 2.97 | 2.61 | 2.52 |
| FHLMC 5.5% (Gold) | 3.32 | 3.14 | 1.83 |
| FNMA 5.5% | 3.22 | 2.99 | 2.14 |
| FNMA ARM | 2.62 | 2.72 | 2.76 |
| **Corporate Bonds** | | | |
| Financial (10-year) A | 4.72 | 4.80 | 5.22 |
| Industrial (25/30-year) A | 5.52 | 5.58 | 5.76 |
| Utility (25/30-year) A | 5.66 | 5.77 | 5.89 |
| Utility (25/30-year) Baa/BBB | 6.05 | 6.17 | 6.35 |
| **Foreign Bonds (10-Year)** | | | |
| Canada | 3.37 | 3.26 | 3.71 |
| Germany | 3.44 | 3.05 | 3.14 |
| Japan | 1.32 | 1.18 | 1.38 |
| United Kingdom | 3.71 | 3.64 | 4.03 |
| **Preferred Stocks** | | | |
| Utility A | 5.83 | 5.79 | 5.99 |
| Financial A | 6.44 | 6.03 | 6.60 |
| Financial Adjustable A | 5.49 | 5.49 | 5.49 |
| **TAX-EXEMPT** | | | |
| **Bond Buyer Indexes** | | | |
| 20-Bond Index (GOs) | 5.04 | 5.08 | 4.45 |
| 25-Bond Index (Revs) | 5.61 | 5.44 | 4.96 |
| **General Obligation Bonds (GOs)** | | | |
| 1-year Aaa | 0.34 | 0.41 | 0.43 |
| 1-year A | 1.20 | 1.28 | 1.18 |
| 5-year Aaa | 1.83 | 1.79 | 1.87 |
| 5-year A | 2.89 | 2.92 | 2.85 |
| 10-year Aaa | 3.46 | 3.38 | 3.30 |
| 10-year A | 4.62 | 4.38 | 4.27 |
| 25/30-year Aaa | 4.86 | 4.94 | 4.45 |
| 25/30-year A | 6.13 | 5.97 | 5.51 |
| **Revenue Bonds (Revs) (25/30-Year)** | | | |
| Education AA | 5.19 | 5.31 | 4.81 |
| Electric AA | 5.34 | 5.30 | 4.79 |
| Housing AA | 6.16 | 6.13 | 5.75 |
| Hospital AA | 5.65 | 5.43 | 5.15 |
| Toll Road Aaa | 5.33 | 5.35 | 4.78 |

# Federal Reserve Data

**BANK RESERVES**

*(Two-Week Period; in Millions, Not Seasonally Adjusted)*

| | Recent Levels | | | Average Levels Over the Last... | | |
|---|---|---|---|---|---|---|
| | 4/6/11 | 3/23/11 | Change | 12 Wks. | 26 Wks. | 52 Wks. |
| Excess Reserves | 1431446 | 1366438 | 65008 | 1207727 | 1094946 | 1064070 |
| Borrowed Reserves | 19196 | 19926 | -730 | 24841 | 36026 | 51802 |
| Net Free/Borrowed Reserves | 1412250 | 1346512 | 65738 | 1182886 | 1058920 | 1012268 |

**MONEY SUPPLY**

*(One-Week Period; in Billions, Seasonally Adjusted)*

| | Recent Levels | | | Growth Rates Over the Last... | | |
|---|---|---|---|---|---|---|
| | 3/28/11 | 3/21/11 | Change | 3 Mos. | 6 Mos. | 12 Mos. |
| M1 (Currency+demand deposits) | 1903.6 | 1891.8 | 11.8 | 14.4% | 14.8% | 11.2% |
| M2 (M1+savings+small time deposits) | 8897.3 | 8898.4 | -1.1 | 2.8% | 3.9% | 4.4% |

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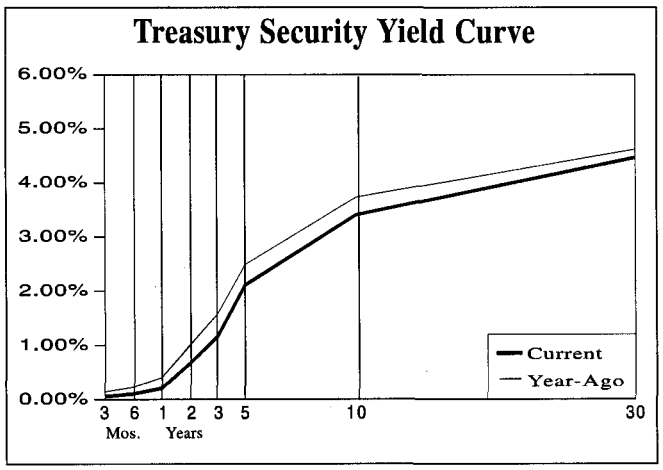
# Selected Yields

| | Recent (4/20/11) | 3 Months Ago (1/19/11) | Year Ago (4/21/10) |
|---|---|---|---|
| **TAXABLE** | | | |
| **Market Rates** | | | |
| Discount Rate | 0.75 | 0.75 | 0.75 |
| Federal Funds | 0.00-0.25 | 0.00-0.25 | 0.00-0.25 |
| Prime Rate | 3.25 | 3.25 | 3.25 |
| 30-day CP (A1/P1) | 0.17 | 0.27 | 0.22 |
| 3-month LIBOR | 0.27 | 0.30 | 0.31 |
| **Bank CDs** | | | |
| 6-month | 0.29 | 0.30 | 0.25 |
| 1-year | 0.47 | 0.48 | 0.43 |
| 5-year | 1.71 | 1.60 | 1.99 |
| **U.S. Treasury Securities** | | | |
| 3-month | 0.06 | 0.15 | 0.15 |
| 6-month | 0.11 | 0.18 | 0.23 |
| 1-year | 0.21 | 0.25 | 0.40 |
| 5-year | 2.12 | 1.93 | 2.49 |
| 10-year | 3.41 | 3.34 | 3.74 |
| 10-year (inflation-protected) | 0.78 | 0.93 | 1.40 |
| 30-year | 4.47 | 4.53 | 4.62 |
| 30-year Zero | 4.79 | 4.87 | 4.87 |




| | Recent (4/20/11) | 3 Months Ago (1/19/11) | Year Ago (4/21/10) |
|---|---|---|---|
| **Mortgage-Backed Securities** | | | |
| GNMA 5.5% | 2.85 | 2.38 | 2.24 |
| FHLMC 5.5% (Gold) | 3.07 | 3.03 | 1.86 |
| FNMA 5.5% | 2.99 | 2.89 | 2.42 |
| FNMA ARM | 2.62 | 2.72 | 2.76 |
| **Corporate Bonds** | | | |
| Financial (10-year) A | 4.71 | 4.78 | 5.03 |
| Industrial (25/30-year) A | 5.45 | 5.57 | 5.61 |
| Utility (25/30-year) A | 5.57 | 5.72 | 5.76 |
| Utility (25/30-year) Baa/BBB | 6.03 | 6.15 | 6.19 |
| **Foreign Bonds (10-Year)** | | | |
| Canada | 3.33 | 3.24 | 3.72 |
| Germany | 3.31 | 3.11 | 3.08 |
| Japan | 1.24 | 1.27 | 1.34 |
| United Kingdom | 3.58 | 3.64 | 4.02 |
| **Preferred Stocks** | | | |
| Utility A | 5.59 | 5.79 | 5.92 |
| Financial A | 6.45 | 6.04 | 6.59 |
| Financial Adjustable A | 5.49 | 5.49 | 5.49 |
| **TAX-EXEMPT** | | | |
| **Bond Buyer Indexes** | | | |
| 20-Bond Index (GOs) | 5.06 | 5.39 | 4.43 |
| 25-Bond Index (Revs) | 5.58 | 5.60 | 4.96 |
| **General Obligation Bonds (GOs)** | | | |
| 1-year Aaa | 0.33 | 0.39 | 0.43 |
| 1-year A | 1.18 | 1.32 | 1.16 |
| 5-year Aaa | 1.74 | 1.90 | 1.83 |
| 5-year A | 2.81 | 3.00 | 2.86 |
| 10-year Aaa | 3.37 | 3.58 | 3.22 |
| 10-year A | 4.49 | 4.54 | 4.22 |
| 25/30-year Aaa | 4.80 | 5.18 | 4.44 |
| 25/30-year A | 6.12 | 6.31 | 5.51 |
| **Revenue Bonds (Revs) (25/30-Year)** | | | |
| Education AA | 5.19 | 5.56 | 4.79 |
| Electric AA | 5.32 | 5.57 | 4.77 |
| Housing AA | 6.01 | 6.42 | 5.73 |
| Hospital AA | 5.65 | 5.73 | 5.15 |
| Toll Road Aaa | 5.33 | 5.63 | 4.76 |

# Federal Reserve Data

**BANK RESERVES**

*(Two-Week Period; in Millions, Not Seasonally Adjusted)*

| | Recent Levels | | | Average Levels Over the Last... | | |
|---|---|---|---|---|---|---|
| | 4/6/11 | 3/23/11 | Change | 12 Wks. | 26 Wks. | 52 Wks. |
| Excess Reserves | 1431443 | 1366438 | 65005 | 1207727 | 1094946 | 1064070 |
| Borrowed Reserves | 19196 | 19926 | -730 | 24841 | 36026 | 51802 |
| Net Free/Borrowed Reserves | 1412247 | 1346512 | 65735 | 1182886 | 1058920 | 1012268 |

**MONEY SUPPLY**

*(One-Week Period; in Billions, Seasonally Adjusted)*

| | Recent Levels | | | Growth Rates Over the Last... | | |
|---|---|---|---|---|---|---|
| | 4/4/11 | 3/28/11 | Change | 3 Mos. | 6 Mos. | 12 Mos. |
| M1 (Currency+demand deposits) | 1904.9 | 1903.8 | 1.1 | 17.1% | 13.8% | 13.2% |
| M2 (M1+savings+small time deposits) | 8923.7 | 8897.5 | 26.2 | 5.4% | 4.4% | 4.7% |

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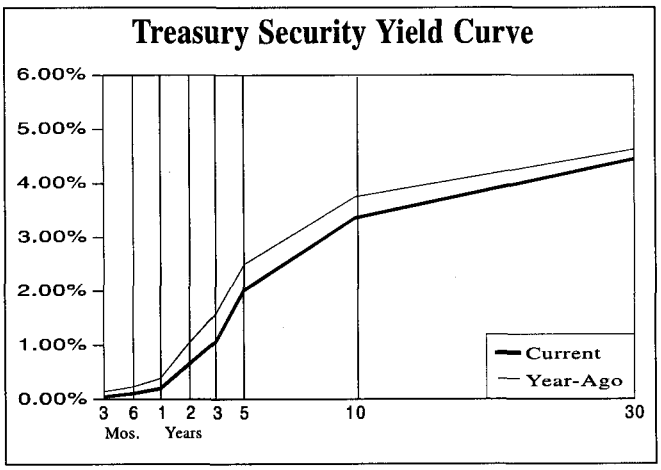
# Selected Yields

| | Recent (4/27/11) | 3 Months Ago (1/26/11) | Year Ago (4/28/10) |
|---|---|---|---|
| **TAXABLE** | | | |
| **Market Rates** | | | |
| Discount Rate | 0.75 | 0.75 | 0.75 |
| Federal Funds | 0.00-0.25 | 0.00-0.25 | 0.00-0.25 |
| Prime Rate | 3.25 | 3.25 | 3.25 |
| 30-day CP (A1/P1) | 0.24 | 0.27 | 0.22 |
| 3-month LIBOR | 0.27 | 0.30 | 0.34 |
| **Bank CDs** | | | |
| 6-month | 0.28 | 0.31 | 0.25 |
| 1-year | 0.46 | 0.49 | 0.43 |
| 5-year | 1.71 | 1.65 | 1.99 |
| **U.S. Treasury Securities** | | | |
| 3-month | 0.05 | 0.15 | 0.15 |
| 6-month | 0.11 | 0.17 | 0.23 |
| 1-year | 0.20 | 0.26 | 0.38 |
| 5-year | 2.02 | 1.99 | 2.50 |
| 10-year | 3.36 | 3.42 | 3.76 |
| 10-year (inflation-protected) | 0.77 | 1.03 | 1.37 |
| 30-year | 4.45 | 4.59 | 4.63 |
| 30-year Zero | 4.79 | 4.93 | 4.89 |

| | Recent (4/27/11) | 3 Months Ago (1/26/11) | Year Ago (4/28/10) |
|---|---|---|---|
| **Mortgage-Backed Securities** | | | |
| GNMA 5.5% | 2.72 | 2.90 | 2.25 |
| FHLMC 5.5% (Gold) | 2.94 | 3.19 | 1.88 |
| FNMA 5.5% | 2.87 | 3.06 | 2.41 |
| FNMA ARM | 2.62 | 2.72 | 2.76 |
| **Corporate Bonds** | | | |
| Financial (10-year) A | 4.68 | 4.73 | 4.99 |
| Industrial (25/30-year) A | 5.40 | 5.52 | 5.66 |
| Utility (25/30-year) A | 5.53 | 5.64 | 5.77 |
| Utility (25/30-year) Baa/BBB | 5.95 | 6.10 | 6.23 |
| **Foreign Bonds (10-Year)** | | | |
| Canada | 3.27 | 3.31 | 3.67 |
| Germany | 3.29 | 3.19 | 3.04 |
| Japan | 1.22 | 1.24 | 1.29 |
| United Kingdom | 3.57 | 3.69 | 3.94 |
| **Preferred Stocks** | | | |
| Utility A | 5.65 | 5.79 | 6.21 |
| Financial A | 6.46 | 6.52 | 6.64 |
| Financial Adjustable A | 5.50 | 5.50 | 5.50 |




| | Recent (4/27/11) | 3 Months Ago (1/26/11) | Year Ago (4/28/10) |
|---|---|---|---|
| **TAX-EXEMPT** | | | |
| **Bond Buyer Indexes** | | | |
| 20-Bond Index (GOs) | 4.98 | 5.41 | 4.37 |
| 25-Bond Index (Revs) | 5.54 | 5.66 | 4.93 |
| **General Obligation Bonds (GOs)** | | | |
| 1-year Aaa | 0.27 | 0.41 | 0.38 |
| 1-year A | 1.13 | 1.28 | 1.16 |
| 5-year Aaa | 1.66 | 1.91 | 1.79 |
| 5-year A | 2.75 | 2.96 | 2.77 |
| 10-year Aaa | 3.28 | 3.60 | 3.16 |
| 10-year A | 4.41 | 4.49 | 4.13 |
| 25/30-year Aaa | 4.75 | 5.06 | 4.44 |
| 25/30-year A | 6.07 | 6.27 | 5.51 |
| **Revenue Bonds (Revs) (25/30-Year)** | | | |
| Education AA | 5.15 | 5.46 | 4.79 |
| Electric AA | 5.28 | 5.57 | 4.77 |
| Housing AA | 5.97 | 6.44 | 5.70 |
| Hospital AA | 5.60 | 5.75 | 5.15 |
| Toll Road Aaa | 5.29 | 5.60 | 4.73 |

# Federal Reserve Data

**BANK RESERVES**

*(Two-Week Period; in Millions, Not Seasonally Adjusted)*

| | Recent Levels | | | Average Levels Over the Last... | | |
|---|---|---|---|---|---|---|
| | 4/20/11 | 4/6/11 | Change | 12 Wks. | 26 Wks. | 52 Wks. |
| Excess Reserves | 1474421 | 1431443 | 42978 | 1274152 | 1131439 | 1078168 |
| Borrowed Reserves | 17930 | 19196 | -1266 | 21035 | 33743 | 49335 |
| Net Free/Borrowed Reserves | 1456491 | 1412247 | 44244 | 1253117 | 1097696 | 1028833 |

**MONEY SUPPLY**

*(One-Week Period; in Billions, Seasonally Adjusted)*

| | Recent Levels | | | Growth Rates Over the Last... | | |
|---|---|---|---|---|---|---|
| | 4/11/11 | 4/4/11 | Change | 3 Mos. | 6 Mos. | 12 Mos. |
| M1 (Currency+demand deposits) | 1883.7 | 1903.6 | -19.9 | 14.3% | 9.8% | 10.8% |
| M2 (M1+savings+small time deposits) | 8928.1 | 8922.4 | 5.7 | 5.2% | 4.3% | 4.8% |

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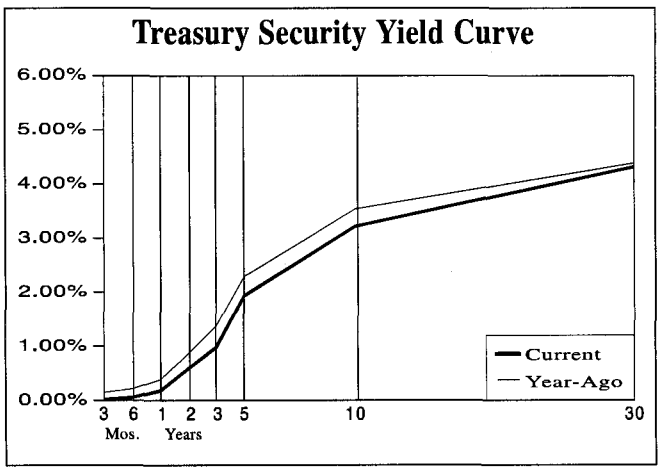
# Selected Yields

| | Recent (5/04/11) | 3 Months Ago (2/02/11) | Year Ago (5/05/10) |
|---|---|---|---|
| **TAXABLE** | | | |
| **Market Rates** | | | |
| Discount Rate | 0.75 | 0.75 | 0.75 |
| Federal Funds | 0.00-0.25 | 0.00-0.25 | 0.00-0.25 |
| Prime Rate | 3.25 | 3.25 | 3.25 |
| 30-day CP (A1/P1) | 0.22 | 0.25 | 0.25 |
| 3-month LIBOR | 0.27 | 0.31 | 0.36 |
| **Bank CDs** | | | |
| 6-month | 0.28 | 0.30 | 0.25 |
| 1-year | 0.46 | 0.48 | 0.43 |
| 5-year | 1.71 | 1.59 | 1.99 |
| **U.S. Treasury Securities** | | | |
| 3-month | 0.02 | 0.15 | 0.15 |
| 6-month | 0.06 | 0.17 | 0.21 |
| 1-year | 0.18 | 0.26 | 0.38 |
| 5-year | 1.94 | 2.09 | 2.29 |
| 10-year | 3.22 | 3.48 | 3.54 |
| 10-year (inflation-protected) | 0.66 | 1.02 | 1.27 |
| 30-year | 4.32 | 4.62 | 4.39 |
| 30-year Zero | 4.66 | 4.96 | 4.62 |

| | Recent (5/04/11) | 3 Months Ago (2/02/11) | Year Ago (5/05/10) |
|---|---|---|---|
| **Mortgage-Backed Securities** | | | |
| GNMA 5.5% | 2.56 | 3.06 | 2.45 |
| FHLMC 5.5% (Gold) | 2.90 | 3.45 | 1.96 |
| FNMA 5.5% | 2.81 | 3.27 | 2.50 |
| FNMA ARM | 2.53 | 2.66 | 3.01 |
| **Corporate Bonds** | | | |
| Financial (10-year) A | 4.48 | 4.86 | 4.80 |
| Industrial (25/30-year) A | 5.26 | 5.63 | 5.42 |
| Utility (25/30-year) A | 5.39 | 5.78 | 5.59 |
| Utility (25/30-year) Baa/BBB | 5.84 | 6.18 | 6.03 |
| **Foreign Bonds (10-Year)** | | | |
| Canada | 3.12 | 3.38 | 3.54 |
| Germany | 3.30 | 3.26 | 2.86 |
| Japan | 1.21 | 1.23 | 1.29 |
| United Kingdom | 3.80 | 3.76 | 3.82 |
| **Preferred Stocks** | | | |
| Utility A | 6.06 | 5.79 | 5.59 |
| Financial A | 6.47 | 6.05 | 6.68 |
| Financial Adjustable A | 5.51 | 5.50 | 5.51 |




| | Recent (5/04/11) | 3 Months Ago (2/02/11) | Year Ago (5/05/10) |
|---|---|---|---|
| **TAX-EXEMPT** | | | |
| **Bond Buyer Indexes** | | | |
| 20-Bond Index (GOs) | 4.86 | 5.25 | 4.37 |
| 25-Bond Index (Revs) | 5.51 | 5.61 | 4.91 |
| **General Obligation Bonds (GOs)** | | | |
| 1-year Aaa | 0.31 | 0.39 | 0.38 |
| 1-year A | 1.17 | 1.17 | 1.19 |
| 5-year Aaa | 1.57 | 1.90 | 1.80 |
| 5-year A | 2.67 | 2.82 | 2.73 |
| 10-year Aaa | 3.10 | 3.51 | 3.16 |
| 10-year A | 4.35 | 4.50 | 4.12 |
| 25/30-year Aaa | 4.58 | 4.92 | 4.42 |
| 25/30-year A | 6.04 | 6.24 | 5.51 |
| **Revenue Bonds (Revs) (25/30-Year)** | | | |
| Education AA | 5.07 | 5.33 | 4.74 |
| Electric AA | 5.26 | 5.48 | 4.77 |
| Housing AA | 5.95 | 6.41 | 5.65 |
| Hospital AA | 5.55 | 5.69 | 5.13 |
| Toll Road Aaa | 5.24 | 5.46 | 4.73 |

# Federal Reserve Data

**BANK RESERVES**

*(Two-Week Period; in Millions, Not Seasonally Adjusted)*

| | Recent Levels | | | Average Levels Over the Last... | | |
|---|---|---|---|---|---|---|
| | 4/20/11 | 4/6/11 | Change | 12 Wks. | 26 Wks. | 52 Wks. |
| Excess Reserves | 1474433 | 1431443 | 42990 | 1274154 | 1131440 | 1078169 |
| Borrowed Reserves | 17930 | 19196 | -1266 | 21035 | 33743 | 49335 |
| Net Free/Borrowed Reserves | 1456503 | 1412247 | 44256 | 1253120 | 1097698 | 1028833 |

**MONEY SUPPLY**

*(One-Week Period; in Billions, Seasonally Adjusted)*

| | Recent Levels | | | Growth Rates Over the Last... | | |
|---|---|---|---|---|---|---|
| | 4/18/11 | 4/11/11 | Change | 3 Mos. | 6 Mos. | 12 Mos. |
| M1 (Currency+demand deposits) | 1888.6 | 1883.8 | 4.8 | 8.2% | 12.3% | 10.9% |
| M2 (M1+savings+small time deposits) | 8940.6 | 8928.2 | 12.4 | 3.6% | 4.5% | 5.1% |

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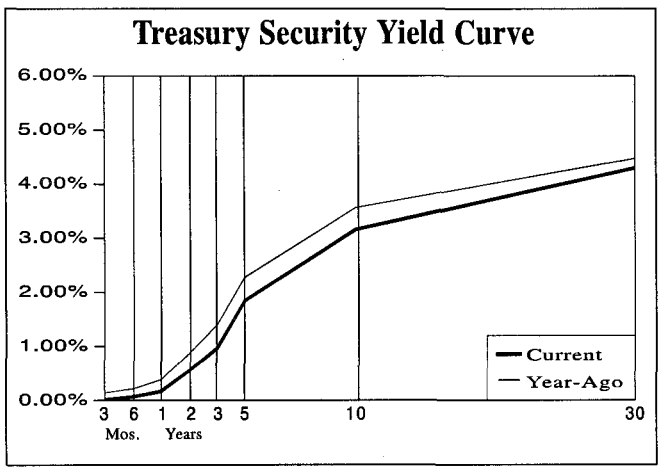
# Selected Yields

| | Recent (5/11/11) | 3 Months Ago (2/09/11) | Year Ago (5/12/10) |
|---|---|---|---|
| **TAXABLE** | | | |
| **Market Rates** | | | |
| Discount Rate | 0.75 | 0.75 | 0.75 |
| Federal Funds | 0.00-0.25 | 0.00-0.25 | 0.00-0.25 |
| Prime Rate | 3.25 | 3.25 | 3.25 |
| 30-day CP (A1/P1) | 0.15 | 0.31 | 0.32 |
| 3-month LIBOR | 0.26 | 0.31 | 0.43 |
| **Bank CDs** | | | |
| 6-month | 0.28 | 0.21 | 0.25 |
| 1-year | 0.46 | 0.29 | 0.43 |
| 5-year | 1.71 | 1.65 | 1.99 |
| **U.S. Treasury Securities** | | | |
| 3-month | 0.02 | 0.13 | 0.15 |
| 6-month | 0.07 | 0.16 | 0.22 |
| 1-year | 0.17 | 0.29 | 0.38 |
| 5-year | 1.85 | 2.33 | 2.28 |
| 10-year | 3.16 | 3.65 | 3.57 |
| 10-year (inflation-protected) | 0.64 | 1.20 | 1.25 |
| 30-year | 4.30 | 4.71 | 4.48 |
| 30-year Zero | 4.66 | 5.02 | 4.75 |

| | Recent (5/11/11) | 3 Months Ago (2/09/11) | Year Ago (5/12/10) |
|---|---|---|---|
| **Mortgage-Backed Securities** | | | |
| GNMA 5.5% | 2.25 | 3.17 | 2.04 |
| FHLMC 5.5% (Gold) | 2.70 | 3.78 | 1.73 |
| FNMA 5.5% | 2.60 | 3.68 | 2.28 |
| FNMA ARM | 2.60 | 2.66 | 3.01 |
| **Corporate Bonds** | | | |
| Financial (10-year) A | 4.51 | 4.94 | 4.87 |
| Industrial (25/30-year) A | 5.26 | 5.67 | 5.55 |
| Utility (25/30-year) A | 5.33 | 5.82 | 5.72 |
| Utility (25/30-year) Baa/BBB | 5.78 | 6.22 | 6.10 |
| **Foreign Bonds (10-Year)** | | | |
| Canada | 3.22 | 3.45 | 3.60 |
| Germany | 3.13 | 3.31 | 2.94 |
| Japan | 1.13 | 1.34 | 1.31 |
| United Kingdom | 3.44 | 3.87 | 3.85 |
| **Preferred Stocks** | | | |
| Utility A | 6.18 | 5.80 | 6.02 |
| Financial A | 6.47 | 6.06 | 6.74 |
| Financial Adjustable A | 5.51 | 5.51 | 5.51 |




| | Recent (5/11/11) | 3 Months Ago (2/09/11) | Year Ago (5/12/10) |
|---|---|---|---|
| **TAX-EXEMPT** | | | |
| **Bond Buyer Indexes** | | | |
| 20-Bond Index (GOs) | 4.69 | 5.25 | 4.29 |
| 25-Bond Index (Revs) | 5.45 | 5.63 | 4.89 |
| **General Obligation Bonds (GOs)** | | | |
| 1-year Aaa | 0.28 | 0.39 | 0.39 |
| 1-year A | 1.15 | 1.16 | 1.19 |
| 5-year Aaa | 1.48 | 1.96 | 1.82 |
| 5-year A | 2.59 | 2.87 | 2.73 |
| 10-year Aaa | 2.96 | 3.57 | 3.16 |
| 10-year A | 4.24 | 4.54 | 4.13 |
| 25/30-year Aaa | 4.48 | 4.97 | 4.40 |
| 25/30-year A | 6.01 | 6.26 | 5.47 |
| **Revenue Bonds (Revs) (25/30-Year)** | | | |
| Education AA | 4.98 | 5.35 | 4.75 |
| Electric AA | 5.24 | 5.48 | 4.75 |
| Housing AA | 5.91 | 6.44 | 5.65 |
| Hospital AA | 5.45 | 5.71 | 5.09 |
| Toll Road Aaa | 5.17 | 5.48 | 4.73 |

# Federal Reserve Data

**BANK RESERVES**

*(Two-Week Period; in Millions, Not Seasonally Adjusted)*

| | Recent Levels | | | Average Levels Over the Last... | | |
|---|---|---|---|---|---|---|
| | 5/4/11 | 4/20/11 | Change | 12 Wks. | 26 Wks. | 52 Wks. |
| Excess Reserves | 1433323 | 1474433 | -41110 | 1330196 | 1163742 | 1092180 |
| Borrowed Reserves | 16908 | 17930 | -1022 | 19864 | 31461 | 47019 |
| Net Free/Borrowed Reserves | 1416415 | 1456503 | -40088 | 1310332 | 1132281 | 1045161 |

**MONEY SUPPLY**

*(One-Week Period; in Billions, Seasonally Adjusted)*

| | Recent Levels | | | Growth Rates Over the Last... | | |
|---|---|---|---|---|---|---|
| | 4/25/11 | 4/18/11 | Change | 3 Mos. | 6 Mos. | 12 Mos. |
| M1 (Currency+demand deposits) | 1917.0 | 1888.7 | 28.3 | 12.7% | 14.5% | 13.0% |
| M2 (M1+savings+small time deposits) | 8964.7 | 8940.7 | 24.0 | 6.3% | 4.7% | 4.9% |

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**GOODMAN WATER COMPANY**
**DOCKET NO. W-02500A-10-0382**
**TABLE OF CONTENTS TO SURREBUTTAL SCHEDULES WAR**


| SCHEDULE # | |
|---|---|
| WAR - 1 | COST OF CAPITAL SUMMARY |
| WAR - 2 | DCF COST OF EQUITY CAPITAL |
| WAR - 3 | DIVIDEND YIELD CALCULATION |
| WAR - 4 | DIVIDEND GROWTH RATE CALCULATION |
| WAR - 5 | DIVIDEND GROWTH COMPONENTS |
| WAR - 6 | GROWTH RATE COMPARISON |
| WAR - 7 | CAPM COST OF EQUITY CAPITAL |
| WAR - 8 | ECONOMIC INDICATORS - 1990 TO PRESENT |
| WAR - 9 | CAPITAL STRUCTURES OF SAMPLE COMPANIES |

## WEIGHTED AVERAGE COST OF CAPITAL

| LINE NO. | DESCRIPTION | (A) DOLLAR AMOUNT | (B) COST RATE | (C) WEIGHTED COST RATE |
|---|---|---|---|---|
| 1 | Long-Term Debt | 40.00% | 6.13% | 2.45% |
| 2 | Common Equity | 60.00% | 9.00% | 5.40% |
| 3 | Total Capitalization | 100.00% | | |
| 4 | **WEIGHTED AVERAGE COST OF CAPITAL** | | | **7.85%** |

REFERENCES:
COLUMN (A): TESTIMONY, WAR
COLUMN (B): LINE 1; SCHEDULE WAR-1, PAGE 2, LINE 2; TESTIMONY WAR
COLUMN (C): COLUMN (A) x COLUMN (B), LINE 4; LINE 1 + LINE 2

## SAMPLE COMPANIES APPROXIMATE WEIGHTED COSTS OF DEBT

| LINE NO. | STOCK SYMBOL | COMPANY | WEIGHTED COSTS | | |
|---|---|---|---|---|---|
| 1 | AWR | AMERICAN STATES WATER CO. | 7.07% | | |
| 2 | CWT | CALIFORNIA WATER SERVICE GROUP | 6.24% | | |
| 3 | WTR | AQUA AMERICA, INC. | 5.75% | | |
| 4 | CTWS | CONNECTICUT WATER SERVICES, INC. | 4.95% | | |
| 5 | MSEX | MIDDLESEX WATER COMPANY | 5.56% | | |
| 6 | SJW | SJW CORP. | 6.66% | | |
| 7 | YORW | YORK WATER COMPANY | 6.65% | | |
| 8 | AVERAGE OF APPROXIMATE WEIGHTED COSTS OF DEBT (a) | | | 6.13% | AVERAGE OF LINES 1 THRU 8 |
| 9 | **RUCO RECOMMENDED COST OF DEBT** | | | 6.13% | |

REFERENCE:
MOST RECENT SEC 10-K FILINGS OR ANNUAL REPORTS

NOTE:
(a) COSTS ARE APPROXIMATE AND DO NOT INCLUDE THE FOLLOWING:
DEBT ISSUES THAT DID NOT HAVE STATED YIELDS; AND
DEBT ISSUES WITH ZERO RATES OF INTEREST.
IN THE CASE OF ISSUES WITH VARIABLE RATES OF INTEREST THE HIGH END OF THE VARIABLE RANGE WAS USED.

## COST OF COMMON EQUITY CALCULATION

| LINE NO. | | | |
|---|---|---|---|
| 1 | **DCF METHODOLOGY** | | |
| 2 | DCF - WATER COMPANY SINGLE-STAGE CONSTANT GROWTH MODEL ESTIMATE | 9.06% | SCHEDULE WAR-2, COLUMN (C), LINE 5 |
| 3 | DCF - NATURAL GAS LDC SINGLE-STAGE CONSTANT GROWTH MODEL ESTIMATE | 9.23% | SCHEDULE WAR-2, COLUMN (C), LINE 13 |
| 4 | **AVERAGE OF DCF ESTIMATES** | **9.14%** | ( LINE 2 + LINE 3 ) ÷ 2 |
| 5 | **CAPM METHODOLOGY** | | |
| 6 | CAPM - WATER COMPANY GEOMETRIC MEAN ESTIMATE | 5.46% | SCHEDULE WAR-7 PAGE 1, COLUMN (B), LINE 5 |
| 7 | CAPM - NATURAL GAS LDC GEOMETRIC MEAN ESTIMATE | 5.06% | SCHEDULE WAR-7 PAGE 1, COLUMN (B), LINE 13 |
| 8 | CAPM - WATER COMPANY ARITHMETIC MEAN ESTIMATE | 7.02% | SCHEDULE WAR-7 PAGE 2, COLUMN (B), LINE 5 |
| 9 | CAPM - NATURAL GAS LDC ARITHMETIC MEAN ESTIMATE | 6.25% | SCHEDULE WAR-7 PAGE 2, COLUMN (B), LINE 13 |
| 10 | **AVERAGE OF CAPM ESTIMATES** | **5.95%** | ( SUM OF LINES 6 THRU 9 ) ÷ 4 |
| 11 | **AVERAGE OF DCF AND CAPM ESTIMATES** | **7.54%** | ( SUM OF LINES 4 AND 10 ) ÷ 2 |
| 12 | **FINAL COST OF COMMON EQUITY ESTIMATE** | **9.00%** | TESTIMONY WAR |

**GOODMAN WATER COMPANY**
**TEST YEAR ENDED DECEMBER 31, 2009**
**DCF COST OF EQUITY CAPITAL**

**DOCKET NO. W-02500A-10-0382**
**SURREBUTTAL SCHEDULE WAR - 2**

| LINE NO. | STOCK SYMBOL | COMPANY | (A) DIVIDEND YIELD | + | (B) GROWTH RATE (g) | = | (C) DCF COST OF EQUITY CAPITAL |
|---|---|---|---|---|---|---|---|
| 1 | AWR | AMERICAN STATES WATER CO. | 3.02% | + | 7.23% | = | 10.25% |
| 2 | CWT | CALIFORNIA WATER SERVICE GROUP | 3.35% | + | 6.42% | = | 9.77% |
| 3 | SJW | SJW CORPORATION | 3.03% | + | 4.63% | = | 7.66% |
| 4 | WTR | AQUA AMERICA, INC. | 2.78% | + | 5.79% | = | 8.57% |
| 5 | **WATER COMPANY AVERAGE** | | | | | | **9.06%** |
| 6 | AGL | AGL RESOURCES, INC. | 4.52% | + | 5.58% | = | 10.10% |
| 7 | ATO | ATMOS ENERGY CORP. | 4.01% | + | 4.16% | = | 8.17% |
| 8 | LG | LACLEDE GROUP, INC. | 4.28% | + | 4.71% | = | 8.99% |
| 9 | NJR | NEW JERSEY RESOURCES CORPORATION | 3.35% | + | 6.51% | = | 9.86% |
| 10 | NWN | NORTHWEST NATURAL GAS CO. | 3.84% | + | 4.09% | = | 7.93% |
| 11 | PNY | PIEDMONT NATURAL GAS COMPANY | 3.67% | + | 3.76% | = | 7.43% |
| 12 | SJI | SOUTH JERSEY INDUSTIES, INC. | 2.62% | + | 11.70% | = | 14.32% |
| 13 | SWX | SOUTHWEST GAS CORPORATION | 2.75% | + | 5.56% | = | 8.30% |
| 14 | WGL | WGL HOLDINGS, INC. | 3.94% | + | 3.99% | = | 7.93% |
| 15 | **NATURAL GAS LDC AVERAGE** | | | | | | **9.23%** |

REFERENCES:
COLUMN (A): SCHEDULE WAR - 3, COLUMN C
COLUMN (B): SCHEDULE WAR - 4, PAGE 1, COLUMN C
COLUMN (C): COLUMN (A) + COLUMN (B)

**GOODMAN WATER COMPANY**
**TEST YEAR ENDED DECEMBER 31, 2009**
**DIVIDEND YIELD CALCULATION**

**DOCKET NO. W-02500A-10-0382**
**SURREBUTTAL SCHEDULE WAR - 3**

| LINE NO. | STOCK SYMBOL | COMPANY | (A) ESTIMATED DIVIDEND (PER SHARE) | / | (B) AVERAGE STOCK PRICE (PER SHARE) | = | (C) DIVIDEND YIELD |
|---|---|---|---|---|---|---|---|
| 1 | AWR | AMERICAN STATES WATER CO. | $1.04 | / | $34.44 | = | 3.02% |
| 2 | CWT | CALIFORNIA WATER SERVICE GROUP | $1.23 | / | $36.75 | = | 3.35% |
| 3 | SJW | SJW CORPORATION | $0.69 | / | $22.82 | = | 3.03% |
| 4 | WTR | AQUA AMERICA, INC. | $0.62 | / | $22.32 | | 2.78% |
| 5 | **WATER COMPANY AVERAGE** | | | | | | **3.04%** |
| 6 | AGL | AGL RESOURCES, INC. | $1.80 | / | $39.78 | = | 4.52% |
| 7 | ATO | ATMOS ENERGY CORP. | $1.36 | / | $33.93 | = | 4.01% |
| 8 | LG | LACLEDE GROUP, INC. | $1.62 | / | $37.87 | = | 4.28% |
| 9 | NJR | NEW JERSEY RESOURCES CORPORATION | $1.44 | / | $42.99 | = | 3.35% |
| 10 | NWN | NORTHWEST NATURAL GAS CO. | $1.74 | / | $45.29 | = | 3.84% |
| 11 | PNY | PIEDMONT NATURAL GAS COMPANY | $1.12 | / | $30.51 | = | 3.67% |
| 12 | SJI | SOUTH JERSEY INDUSTIES, INC. | $1.46 | / | $55.78 | = | 2.62% |
| 13 | SWX | SOUTHWEST GAS CORPORATION | $1.06 | / | $38.59 | = | 2.75% |
| 14 | WGL | WGL HOLDINGS, INC. | $1.51 | / | $38.35 | = | 3.94% |
| 15 | **NATURAL GAS LDC AVERAGE** | | | | | | **3.66%** |

REFERENCES:
COLUMN (A): ESTIMATED 12 MONTH DIVIDEND REPORTED IN VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 04/22/2011 (WATER COMPANIES) AND 03/11/2011 (NATURAL GAS LDC's).
COLUMN (B): EIGHT WEEK AVERAGE OF ADJUSTED CLOSING PRICES FROM 03/21/2011 TO 05/13/2011 STOCK QUOTES OBTAINED THROUGH YAHOO! FINANCE WEB SITE - HISTORICAL QUOTES (http://finance.yahoo.com).
COLUMN (C): COLUMN (A) DIVIDED BY COLUMN (B)

NOTE:
CLOSING STOCK PRICES ARE ADJUSTED FOR DIVIDENDS AND STOCK SPLITS.

**GOODMAN WATER COMPANY**
**TEST YEAR ENDED DECEMBER 31, 2009**
**DIVIDEND GROWTH RATE CALCULATION**

**DOCKET NO. W-02500A-10-0382**
**SURREBUTTAL SCHEDULE WAR - 4**


| LINE NO. | STOCK SYMBOL | COMPANY | (A) INTERNAL GROWTH ( br ) | + | (B) EXTERNAL GROWTH (sv) | = | (C) DIVIDEND GROWTH (g) |
|---|---|---|---|---|---|---|---|
| 1 | AWR | AMERICAN STATES WATER CO. | 6.25% | + | 0.98% | = | 7.23% |
| 2 | CWT | CALIFORNIA WATER SERVICE GROUP | 3.75% | + | 2.67% | = | 6.42% |
| 3 | SJW | SJW CORPORATION | 2.50% | + | 2.13% | = | 4.63% |
| 4 | WTR | AQUA AMERICA, INC. | 5.25% | + | 0.54% | = | 5.79% |
| 5 | **WATER COMPANY AVERAGE** | | | | | | **6.02%** |
| 6 | AGL | AGL RESOURCES, INC. | 5.50% | + | 0.08% | = | 5.58% |
| 7 | ATO | ATMOS ENERGY CORP. | 3.75% | + | 0.41% | = | 4.16% |
| 8 | LG | LACLEDE GROUP, INC. | 4.00% | + | 0.71% | = | 4.71% |
| 9 | NJR | NEW JERSEY RESOURCES CORPORATION | 6.50% | + | 0.01% | = | 6.51% |
| 10 | NWN | NORTHWEST NATURAL GAS CO. | 4.00% | + | 0.09% | = | 4.09% |
| 11 | PNY | PIEDMONT NATURAL GAS COMPANY | 3.75% | + | 0.01% | = | 3.76% |
| 12 | SJI | SOUTH JERSEY INDUSTIES, INC. | 8.50% | + | 3.20% | = | 11.70% |
| 13 | SWX | SOUTHWEST GAS CORPORATION | 5.00% | + | 0.56% | = | 5.56% |
| 14 | WGL | WGL HOLDINGS, INC. | 3.75% | + | 0.24% | = | 3.99% |
| 15 | **NATURAL GAS LDC AVERAGE** | | | | | | **5.56%** |

REFERENCES:
COLUMN (A): TESTIMONY, WAR
COLUMN (B): SCHEDULE WAR - 4, PAGE 2, COLUMN C
COLUMN (C): COLUMN (A) + COLUMN (B)

**GOODMAN WATER COMPANY**
**TEST YEAR ENDED DECEMBER 31, 2009**
**DIVIDEND GROWTH RATE CALCULATION**

**DOCKET NO. W-02500A-10-0382**
**SURREBUTTAL SCHEDULE WAR - 4**
**PAGE 2 OF 2**

| LINE NO. | STOCK SYMBOL | COMPANY | (A) SHARE GROWTH | x | { [ ( ( M ÷ B ) + 1 ) / 2 ] - 1 } | = | (C) EXTERNAL GROWTH ( sv ) |
|---|---|---|---|---|---|---|---|
| | | | | | (B) | | |
| 1 | AWR | AMERICAN STATES WATER CO. | 3.00% | x | { [ ( ( 1.66 ) + 1 ) / 2 ] - 1 } | = | 0.98% |
| 2 | CWT | CALIFORNIA WATER SERVICE GROUP | 7.00% | x | { [ ( ( 1.76 ) + 1 ) / 2 ] - 1 } | = | 2.67% |
| 3 | SJW | SJW CORPORATION | 8.00% | x | { [ ( ( 1.53 ) + 1 ) / 2 ] - 1 } | = | 2.13% |
| 4 | WTR | AQUA AMERICA, INC. | 0.70% | x | { [ ( ( 2.55 ) + 1 ) / 2 ] - 1 } | = | 0.54% |
| 5 | **WATER COMPANY AVERAGE** | | | | | | **1.58%** |
| 6 | AGL | AGL RESOURCES, INC. | 0.25% | x | { [ ( ( 1.61 ) + 1 ) / 2 ] - 1 } | = | 0.08% |
| 7 | ATO | ATMOS ENERGY CORP. | 2.75% | x | { [ ( ( 1.30 ) + 1 ) / 2 ] - 1 } | = | 0.41% |
| 8 | LG | LACLEDE GROUP, INC. | 2.75% | x | { [ ( ( 1.52 ) + 1 ) / 2 ] - 1 } | = | 0.71% |
| 9 | NJR | NEW JERSEY RESOURCES CORPORATION | 0.01% | x | { [ ( ( 2.31 ) + 1 ) / 2 ] - 1 } | = | 0.01% |
| 10 | NWN | NORTHWEST NATURAL GAS CO. | 0.25% | x | { [ ( ( 1.68 ) + 1 ) / 2 ] - 1 } | = | 0.09% |
| 11 | PNY | PIEDMONT NATURAL GAS COMPANY | 0.01% | x | { [ ( ( 2.24 ) + 1 ) / 2 ] - 1 } | = | 0.01% |
| 12 | SJI | SOUTH JERSEY INDUSTIES, INC. | 3.50% | x | { [ ( ( 2.83 ) + 1 ) / 2 ] - 1 } | = | 3.20% |
| 13 | SWX | SOUTHWEST GAS CORPORATION | 2.25% | x | { [ ( ( 1.50 ) + 1 ) / 2 ] - 1 } | = | 0.56% |
| 14 | WGL | WGL HOLDINGS, INC. | 0.75% | x | { [ ( ( 1.63 ) + 1 ) / 2 ] - 1 } | = | 0.24% |
| 15 | **NATURAL GAS LDC AVERAGE** | | | | | | **0.59%** |

REFERENCES:
COLUMN (A): TESTIMONY, WAR
COLUMN (B): VALUE LINE INVESTMENT SURVEY
- RATINGS & REPORTS DATED 04/22/2011 (WATER COMPANIES) AND 03/11/2011 (NATURAL GAS LDC's)
COLUMN (C): COLUMN (A) x COLUMN (B)

GOODMAN WATER COMPANY
TEST YEAR ENDED DECEMBER 31, 2009
DIVIDEND GROWTH COMPONENTS

DOCKET NO. W-02500A-10-0382
SURREBUTTAL SCHEDULE WAR - 5


| LINE NO. | STOCK SYMBOL | WATER COMPANY NAME | OPERATING PERIOD | (A) RETENTION RATIO (b) | x | (B) RETURN ON BOOK EQUITY (r) | = | (C) DIVIDEND GROWTH (g) | (D) BOOK VALUE ($/SHARE) | (E) SHARES OUTST. (MILLIONS) | (F) SHARE GROWTH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | AWR | AMERICAN STATES WATER CO. | 2006 | 0.3158 | | 8.10% | | 2.56% | 16.64 | 77.70 | |
| 2 | | | 2007 | 0.4074 | | 9.30% | | 3.79% | 17.53 | 76.40 | |
| 3 | | | 2008 | 0.3548 | | 8.60% | | 3.05% | 17.95 | 76.90 | |
| 4 | | | 2009 | 0.3765 | | 8.20% | | 3.09% | 19.39 | 77.54 | |
| 5 | | | 2010 | 0.5378 | | 11.30% | | 6.08% | 20.26 | 78.00 | |
| 6 | | | GROWTH 2006 - 2010 | | | | | 3.71% | 5.00% | | 2.24% |
| 7 | | | 2011 | 0.4857 | | 11.00% | | 5.34% | | 78.20 | 3.33% |
| 8 | | | 2012 | 0.4909 | | 11.00% | | 5.40% | | 78.40 | 2.31% |
| 9 | | | 2014-16 | 0.5192 | | 12.50% | | 6.49% | 3.00% | 79.00 | 1.43% |
| 10 | | | | | | | | | | | |
| 11 | CWT | CALIFORNIA WATER SERVICE GROUP | 2006 | 0.1418 | | 6.80% | | 0.96% | 18.15 | 81.74 | |
| 12 | | | 2007 | 0.2267 | | 8.10% | | 1.84% | 18.50 | 89.33 | |
| 13 | | | 2008 | 0.3842 | | 9.90% | | 3.80% | 19.44 | 90.81 | |
| 14 | | | 2009 | 0.3949 | | 9.60% | | 3.79% | 20.26 | 92.55 | |
| 15 | | | 2010 | 0.3425 | | 8.60% | | 2.95% | 20.91 | 90.16 | |
| 16 | | | GROWTH 2006 - 2010 | | | | | 2.67% | 5.50% | | 0.21% |
| 17 | | | 2011 | 0.3850 | | 10.00% | | 3.85% | | 91.00 | 10.42% |
| 18 | | | 2012 | 0.4093 | | 9.00% | | 3.68% | | 92.00 | 9.55% |
| 19 | | | 2014-16 | 0.4128 | | 10.00% | | 4.13% | 2.50% | 105.00 | 5.33% |
| 20 | | | | | | | | | | | |
| 21 | SJW | SJW CORPORATION | 2006 | 0.5210 | | 9.70% | | 5.05% | 12.48 | 21.36 | |
| 22 | | | 2007 | 0.4135 | | 8.20% | | 3.39% | 12.90 | 21.65 | |
| 23 | | | 2008 | 0.3981 | | 8.00% | | 3.19% | 13.99 | 21.99 | |
| 24 | | | 2009 | 0.1852 | | 6.00% | | 1.11% | 13.66 | 22.17 | |
| 25 | | | 2010 | 0.1905 | | 6.10% | | 1.16% | 13.75 | 22.29 | |
| 26 | | | GROWTH 2006 - 2010 | | | | | 2.78% | 6.50% | | 0.37% |
| 27 | | | 2011 | 0.2333 | | 6.00% | | 1.40% | | 22.50 | 10.51% |
| 28 | | | 2012 | 0.2600 | | 6.50% | | 1.69% | | 23.00 | 8.90% |
| 29 | | | 2014-16 | 0.3692 | | 7.50% | | 2.77% | 3.50% | 26.00 | 6.15% |
| 30 | | | | | | | | | | | |
| 31 | WTR | AQUA AMERICA, INC. | 2006 | 0.3714 | | 10.00% | | 3.71% | 6.96 | 41.44 | |
| 32 | | | 2007 | 0.3239 | | 9.70% | | 3.14% | 7.32 | 41.61 | |
| 33 | | | 2008 | 0.3014 | | 9.30% | | 2.80% | 7.82 | 42.06 | |
| 34 | | | 2009 | 0.2857 | | 9.40% | | 2.69% | 8.12 | 41.59 | |
| 35 | | | 2010 | 0.3444 | | 10.60% | | 3.65% | 8.51 | 41.36 | |
| 36 | | | GROWTH 2006 - 2010 | | | | | 3.20% | 7.00% | | 1.05% |
| 37 | | | 2011 | 0.3368 | | 11.00% | | 3.71% | | 41.00 | 0.67% |
| 38 | | | 2012 | 0.3619 | | 11.50% | | 4.16% | | 40.00 | 0.70% |
| 39 | | | 2014-16 | 0.4148 | | 13.00% | | 5.39% | 5.00% | 40.00 | 0.70% |

REFERENCES:
COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY
- RATINGS & REPORTS DATED 04/22/2011
COLUMN (C): COLUMN (A) x COLUMN (B)
COLUMN (C): LINES 6, 16, 26 & 36, SIMPLE AVERAGE GROWTH, 2006 - 2010

COLUMN (D): VALUE LINE INVESTMENT SURVEY
COLUMN (D): LINES 6, 16, 26 & 36, COMPOUND GROWTH RATE
COLUMN (E): VALUE LINE INVESTMENT SURVEY
COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

GOODMAN WATER COMPANY
TEST YEAR ENDED DECEMBER 31, 2009
DIVIDEND GROWTH COMPONENTS

DOCKET NO. W-02500A-10-0382
SURREBUTTAL SCHEDULE WAR - 5


| LINE NO. | STOCK SYMBOL | NATURAL GAS LDC NAME | OPERATING PERIOD | (A) RETENTION RATIO (b) | x | (B) RETURN ON BOOK EQUITY (r) | = | (C) DIVIDEND GROWTH (g) | (D) BOOK VALUE ($/SHARE) | (E) SHARES OUTST. (MILLIONS) | (F) SHARE GROWTH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | AGL | AGL RESOURCES, INC. | 2006 | 0.4559 | | 13.20% | | 6.02% | 20.71 | 77.70 | |
| 2 | | | 2007 | 0.3971 | | 12.70% | | 5.04% | 21.74 | 76.40 | |
| 3 | | | 2008 | 0.3801 | | 12.60% | | 4.79% | 21.48 | 76.90 | |
| 4 | | | 2009 | 0.4028 | | 12.50% | | 5.03% | 22.95 | 77.54 | |
| 5 | | | 2010 | 0.4133 | | 12.90% | | 5.33% | 23.24 | 78.00 | |
| 6 | | | GROWTH 2006 - 2010 | | | | | 5.24% | 5.50% | | 0.10% |
| 7 | | | 2011 | 0.4286 | | 12.50% | | 5.36% | | 78.20 | 0.26% |
| 8 | | | 2012 | 0.4424 | | 12.50% | | 5.53% | | 78.40 | 0.26% |
| 9 | | | 2014-16 | 0.4773 | | 12.50% | | 5.97% | 5.50% | 79.00 | 0.26% |
| 10 | | | | | | | | | | | |
| 11 | ATO | ATMOS ENERGY CORP. | 2006 | 0.3700 | | 9.80% | | 3.63% | 20.16 | 81.74 | |
| 12 | | | 2007 | 0.3402 | | 8.70% | | 2.96% | 22.01 | 89.33 | |
| 13 | | | 2008 | 0.3500 | | 8.80% | | 3.08% | 22.60 | 90.81 | |
| 14 | | | 2009 | 0.3299 | | 8.30% | | 2.74% | 23.52 | 92.55 | |
| 15 | | | 2010 | 0.3796 | | 9.20% | | 3.49% | 24.16 | 90.16 | |
| 16 | | | GROWTH 2006 - 2010 | | | | | 3.18% | 5.00% | | 2.48% |
| 17 | | | 2011 | 0.4087 | | 9.00% | | 3.68% | | 91.00 | 0.93% |
| 18 | | | 2012 | 0.4250 | | 8.50% | | 3.61% | | 92.00 | 1.02% |
| 19 | | | 2014-16 | 0.4630 | | 9.00% | | 4.17% | 4.50% | 105.00 | 3.09% |
| 20 | | | | | | | | | | | |
| 21 | LG | LACLEDE GROUP, INC. | 2006 | 0.4093 | | 12.50% | | 5.12% | 18.85 | 21.36 | |
| 22 | | | 2007 | 0.3723 | | 11.60% | | 4.32% | 19.79 | 21.65 | |
| 23 | | | 2008 | 0.4356 | | 11.80% | | 5.14% | 22.12 | 21.99 | |
| 24 | | | 2009 | 0.4760 | | 12.40% | | 5.90% | 23.32 | 22.17 | |
| 25 | | | 2010 | 0.3539 | | 10.10% | | 3.57% | 24.02 | 22.29 | |
| 26 | | | GROWTH 2006 - 2010 | | | | | 4.81% | 7.00% | | 1.07% |
| 27 | | | 2011 | 0.3686 | | 10.50% | | 3.87% | | 22.50 | 0.94% |
| 28 | | | 2012 | 0.3774 | | 10.50% | | 3.96% | | 23.00 | 1.58% |
| 29 | | | 2014-16 | 0.4286 | | 10.00% | | 4.29% | 5.00% | 26.00 | 3.13% |
| 30 | | | | | | | | | | | |
| 31 | NJR | NEW JERSEY RESOURCES CORPORATION | 2006 | 0.4866 | | 12.60% | | 6.13% | 15.00 | 41.44 | |
| 32 | | | 2007 | 0.3484 | | 10.10% | | 3.52% | 15.50 | 41.61 | |
| 33 | | | 2008 | 0.5889 | | 15.70% | | 9.25% | 17.28 | 42.06 | |
| 34 | | | 2009 | 0.4833 | | 14.60% | | 7.06% | 16.59 | 41.59 | |
| 35 | | | 2010 | 0.4472 | | 14.10% | | 6.30% | 17.53 | 41.36 | |
| 36 | | | GROWTH 2006 - 2010 | | | | | 6.45% | 10.00% | | -0.05% |
| 37 | | | 2011 | 0.4566 | | 14.50% | | 6.62% | | 41.00 | -0.87% |
| 38 | | | 2012 | 0.4807 | | 15.00% | | 7.21% | | 40.00 | -1.66% |
| 39 | | | 2014-16 | 0.4921 | | 13.50% | | 6.64% | 5.50% | 40.00 | -0.67% |

REFERENCES:
COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY
- RATINGS & REPORTS DATED 03/11/2011
COLUMN (C): COLUMN (A) x COLUMN (B)
COLUMN (C): LINES 6, 16, 26 & 36, SIMPLE AVERAGE GROWTH, 2006 - 2010

COLUMN (D): VALUE LINE INVESTMENT SURVEY
COLUMN (D): LINES 6, 16, 26 & 36, COMPOUND GROWTH RATE
COLUMN (E): VALUE LINE INVESTMENT SURVEY
COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

GOODMAN WATER COMPANY
TEST YEAR ENDED DECEMBER 31, 2009
DIVIDEND GROWTH COMPONENTS

DOCKET NO. W-02500A-10-0382
SURREBUTTAL SCHEDULE WAR - 5
PAGE 3 OF 4

| LINE NO. | STOCK SYMBOL | NATURAL GAS LDC NAME | OPERATING PERIOD | (A) RETENTION RATIO (b) | x | (B) RETURN ON BOOK EQUITY (r) | = | (C) DIVIDEND GROWTH (g) | (D) BOOK VALUE ($/SHARE) | (E) SHARES OUTST. (MILLIONS) | (F) SHARE GROWTH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | NWN | NORTHWEST NATURAL GAS CO. | 2006 | 0.4085 | | 10.90% | | 4.45% | 22.01 | 27.24 | |
| 2 | | | 2007 | 0.4783 | | 12.50% | | 5.98% | 22.52 | 26.41 | |
| 3 | | | 2008 | 0.4086 | | 10.90% | | 4.45% | 23.71 | 26.50 | |
| 4 | | | 2009 | 0.4346 | | 11.40% | | 4.95% | 24.88 | 26.53 | |
| 5 | | | 2010 | 0.3846 | | 10.50% | | 4.04% | 25.95 | 26.67 | |
| 6 | | | GROWTH 2006 - 2010 | | | | | 4.78% | 4.00% | | -0.53% |
| 7 | | | 2011 | 0.3857 | | 10.50% | | 4.05% | | 26.75 | 0.30% |
| 8 | | | 2012 | 0.3931 | | 10.50% | | 4.13% | | 26.80 | 0.24% |
| 9 | | | 2014-16 | 0.4125 | | 10.00% | | 4.13% | 4.00% | 26.95 | 0.21% |
| 10 | | | | | | | | | | | |
| 11 | PNY | PIEDMONT NATURAL GAS COMPANY | 2006 | 0.2578 | | 11.00% | | 2.84% | 11.83 | 74.61 | |
| 12 | | | 2007 | 0.2929 | | 11.90% | | 3.49% | 11.99 | 73.23 | |
| 13 | | | 2008 | 0.3087 | | 12.40% | | 3.83% | 12.11 | 73.26 | |
| 14 | | | 2009 | 0.3593 | | 13.20% | | 4.74% | 12.67 | 73.27 | |
| 15 | | | 2010 | 0.2839 | | 11.60% | | 3.29% | 13.35 | 72.28 | |
| 16 | | | GROWTH 2006 - 2010 | | | | | 3.64% | 3.50% | | -0.79% |
| 17 | | | 2011 | 0.2813 | | 12.00% | | 3.38% | | 71.50 | -1.08% |
| 18 | | | 2012 | 0.3000 | | 12.00% | | 3.60% | | 71.00 | -0.89% |
| 19 | | | 2014-16 | 0.3105 | | 12.50% | | 3.88% | 3.00% | 69.00 | -0.92% |
| 20 | | | | | | | | | | | |
| 21 | SJI | SOUTH JERSEY INDUSTIES, INC. | 2006 | 0.6260 | | 16.30% | | 10.20% | 15.11 | 29.33 | |
| 22 | | | 2007 | 0.5167 | | 12.80% | | 6.61% | 16.25 | 29.61 | |
| 23 | | | 2008 | 0.5110 | | 13.10% | | 6.69% | 17.33 | 29.73 | |
| 24 | | | 2009 | 0.4874 | | 13.10% | | 6.38% | 18.27 | 29.80 | |
| 25 | | | 2010 | 0.4963 | | 14.20% | | 7.05% | 19.08 | 29.87 | |
| 26 | | | GROWTH 2006 - 2010 | | | | | 7.39% | 9.00% | | 0.46% |
| 27 | | | 2011 | 0.4983 | | 15.00% | | 7.47% | | 31.00 | 3.78% |
| 28 | | | 2012 | 0.5077 | | 16.50% | | 8.38% | | 32.00 | 3.50% |
| 29 | | | 2014-16 | 0.5122 | | 17.50% | | 8.96% | 4.50% | 34.00 | 2.62% |
| 30 | | | | | | | | | | | |
| 31 | SWX | SOUTHWEST GAS CORPORATION | 2006 | 0.5859 | | 8.90% | | 5.21% | 21.58 | 41.77 | |
| 32 | | | 2007 | 0.5590 | | 8.50% | | 4.75% | 22.98 | 42.81 | |
| 33 | | | 2008 | 0.3525 | | 5.90% | | 2.08% | 23.49 | 44.19 | |
| 34 | | | 2009 | 0.5103 | | 7.90% | | 4.03% | 24.44 | 45.09 | |
| 35 | | | 2010 | 0.5595 | | 8.90% | | 4.98% | 25.59 | 45.60 | |
| 36 | | | GROWTH 2006 - 2010 | | | | | 4.21% | 5.00% | | 2.22% |
| 37 | | | 2011 | 0.5435 | | 9.00% | | 4.89% | | 46.50 | 1.97% |
| 38 | | | 2012 | 0.5510 | | 9.00% | | 4.96% | | 48.00 | 2.60% |
| 39 | | | 2014-16 | 0.5690 | | 9.00% | | 5.12% | 4.50% | 50.00 | 1.86% |

REFERENCES:
COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY
- RATINGS & REPORTS DATED 03/11/2011
COLUMN (C): COLUMN (A) x COLUMN (B)
COLUMN (C): LINES 6, 16, 26 & 36, SIMPLE AVERAGE GROWTH, 2006 - 2010

COLUMN (D): VALUE LINE INVESTMENT SURVEY
COLUMN (D): LINES 6, 16, 26 & 36, COMPOUND GROWTH RATE
COLUMN (E): VALUE LINE INVESTMENT SURVEY
COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

GOODMAN WATER COMPANY
TEST YEAR ENDED DECEMBER 31, 2009
DIVIDEND GROWTH COMPONENTS

DOCKET NO. W-02500A-10-0382
SURREBUTTAL SCHEDULE WAR - 5
PAGE 4 OF 4

| LINE NO. | STOCK SYMBOL | NATURAL GAS LDC NAME | OPERATING PERIOD | (A) RETENTION RATIO (b) | x | (B) RETURN ON BOOK EQUITY (r) | = | (C) DIVIDEND GROWTH (g) | (D) BOOK VALUE ($/SHARE) | (E) SHARES OUTST. (MILLIONS) | (F) SHARE GROWTH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | WGL | WGL HOLDINGS, INC. | 2006 | 0.3041 | | 10.30% | | 3.13% | 18.86 | 48.89 | |
| 2 | | | 2007 | 0.3445 | | 10.30% | | 3.55% | 19.83 | 49.45 | |
| 3 | | | 2008 | 0.4221 | | 11.60% | | 4.90% | 20.99 | 49.92 | |
| 4 | | | 2009 | 0.4190 | | 11.60% | | 4.86% | 21.89 | 50.14 | |
| 5 | | | 2010 | 0.3392 | | 9.90% | | 3.36% | 22.82 | 50.54 | |
| 6 | | | GROWTH 2006 - 2010 | | | | | 3.96% | 5.00% | | 0.83% |
| 7 | | | 2011 | 0.2714 | | 9.00% | | 2.44% | | 51.00 | 0.91% |
| 8 | | | 2012 | 0.3319 | | 9.50% | | 3.15% | | 51.00 | 0.45% |
| 9 | | | 2014-16 | 0.3778 | | 10.00% | | 3.78% | 4.00% | 52.00 | 0.57% |

REFERENCES:
COLUMNS (A) & (B): VALUE LINE INVESTMENT SURVEY
- RATINGS & REPORTS DATED 03/11/2011
COLUMN (C): COLUMN (A) x COLUMN (B)
COLUMN (C): LINE 6, SIMPLE AVERAGE GROWTH, 2006 - 2010

COLUMN (D): VALUE LINE INVESTMENT SURVEY
COLUMN (D): LINE 6, COMPOUND GROWTH RATE
COLUMN (E): VALUE LINE INVESTMENT SURVEY
COLUMN (F): COMPOUND GROWTH RATES OF DATES SHOWN

GOODMAN WATER COMPANY
TEST YEAR ENDED DECEMBER 31, 2009
GROWTH RATE COMPARISON

DOCKET NO. W-02500A-10-0382
SURREBUTTAL SCHEDULE WAR - 6

**WATER COMPANY SAMPLE:**

| LINE NO. | STOCK SYMBOL | (A) ( br ) + ( sv ) | (B) ZACKS EPS | EPS | (C) VALUE LINE PROJECTED DPS | BVPS | EPS | (D) VALUE LINE HISTORIC DPS | BVPS | (E) VALUE LINE & ZACKS AVGS. | EPS | (F) 5 - YEAR COMPOUND HISTORY DPS | BVPS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | AWR | 7.23% | 11.00% | 8.00% | 3.50% | 3.00% | 8.50% | 2.50% | 5.00% | 5.93% | 14.05% | 3.39% | 5.04% |
| 2 | CWT | 6.42% | - | 3.00% | 2.50% | 2.50% | 6.50% | 1.00% | 5.50% | 3.50% | 7.81% | 0.86% | 3.60% |
| 3 | SJW | 4.63% | - | 9.00% | 4.00% | 3.50% | -1.50% | 5.50% | 6.50% | 4.50% | -8.34% | 4.51% | 2.45% |
| 4 | WTR | 5.79% | 6.50% | 10.00% | 6.00% | 5.00% | 4.50% | 8.00% | 7.00% | 6.71% | 6.48% | 7.61% | 5.16% |
| 5 | | | | 7.50% | 4.00% | 3.50% | 4.50% | 4.25% | 6.00% | | 5.00% | 4.09% | 4.06% |
| 6 | AVERAGES | 6.02% | 8.75% | | 5.00% | | | 4.92% | | 5.16% | | 4.39% | |

**NATURAL GAS LDC SAMPLE:**

| LINE NO. | STOCK SYMBOL | (A) ( br ) + ( sv ) | (B) ZACKS EPS | EPS | (C) VALUE LINE PROJECTED DPS | BVPS | EPS | (D) VALUE LINE HISTORIC DPS | BVPS | (E) VALUE LINE & ZACKS AVGS. | EPS | (F) 5 - YEAR COMPOUND HISTORY DPS | BVPS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | AGL | 5.58% | 4.00% | 4.50% | 2.00% | 5.50% | 4.50% | 7.50% | 5.50% | 4.79% | 2.48% | 4.43% | 2.92% |
| 2 | ATO | 4.16% | 4.50% | 5.00% | 2.00% | 4.50% | 4.00% | 1.50% | 5.00% | 3.79% | 1.94% | 1.55% | 4.63% |
| 3 | LG | 4.71% | 3.00% | 3.00% | 2.50% | 5.00% | 7.50% | 2.50% | 7.00% | 4.36% | 0.63% | 2.91% | 6.25% |
| 4 | NJR | 6.51% | 4.00% | 4.00% | 4.50% | 5.50% | 8.50% | 7.50% | 10.00% | 6.29% | 7.10% | 9.10% | 3.97% |
| 5 | NWN | 4.09% | 4.60% | 3.00% | 4.00% | 4.00% | 9.50% | 3.50% | 4.00% | 4.66% | 3.82% | 4.85% | 4.20% |
| 6 | PNY | 3.76% | 4.80% | 3.50% | 3.50% | 3.00% | 5.00% | 4.50% | 3.50% | 3.97% | 4.90% | 3.97% | 3.07% |
| 7 | SJI | 11.70% | 6.50% | 9.00% | 8.50% | 4.50% | 10.00% | 7.50% | 9.00% | 7.86% | 2.35% | 10.27% | 6.01% |
| 8 | SWX | 5.56% | 6.00% | 7.50% | 4.50% | 4.50% | 6.00% | 2.00% | 5.00% | 5.07% | 3.48% | 5.09% | 4.35% |
| 9 | WGL | 3.99% | 5.30% | 1.50% | 2.50% | 4.00% | 2.50% | 2.50% | 5.00% | 3.33% | 4.01% | 2.67% | 4.88% |
| 10 | | | | 4.56% | 3.78% | 4.50% | 6.39% | 4.33% | 6.00% | | 3.41% | 4.98% | 4.48% |
| 11 | AVERAGES | 5.56% | 4.74% | | 4.28% | | | 5.57% | | 4.90% | | 4.29% | |

REFERENCES:
COLUMN (A): SCHEDULE WAR - 4, PAGE 1, COLUMN C
COLUMN (B): ZACKS INVESTMENT RESEARCH (www.zacks.com)
COLUMN (C): VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 04/22/2011 (WATER COMPANIES) AND 03/11/2011 (NATURAL GAS LDC's)
COLUMN (D): VALUE LINE INVESTMENT SURVEY - RATINGS & REPORTS DATED 04/22/2011 (WATER COMPANIES) AND 03/11/2011 (NATURAL GAS LDC's)
COLUMN (E): SIMPLE AVERAGE OF COLUMNS (B) THRU (D) LINES 1 THRU 3 (WATER) AND 1 THRU 9 (NATURAL GAS)
COLUMN (F): 5-YEAR ANNUAL GROWTH RATE CALCULATED WITH DATA COMPILED FROM VALUE LINE INVESTMENT SURVEY
- RATINGS & REPORTS DATED 04/22/2011 (WATER COMPANIES) AND 03/11/2011 (NATURAL GAS LDC's)

BASED ON A GEOMETRIC MEAN:

| LINE NO. | STOCK SYMBOL | k | = | $r_f$ | + [ | (A) ß | x | ( | $r_m$ | - | $r_f$ | ) ] | = | (B) EXPECTED RETURN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | AWR | k | = | 2.08% | + [ | 0.75 | x | ( | 9.90% | - | 5.40% | ) ] | = | 5.46% |
| 2 | CWT | k | = | 2.08% | + [ | 0.70 | x | ( | 9.90% | - | 5.40% | ) ] | = | 5.23% |
| 3 | SJW | k | = | 2.08% | + [ | 0.90 | x | ( | 9.90% | - | 5.40% | ) ] | = | 6.13% |
| 4 | WTR | k | = | 2.08% | + [ | 0.65 | x | ( | 9.90% | - | 5.40% | ) ] | = | 5.01% |
| 5 | **WATER COMPANY AVERAGE** | | | | | 0.75 | | | | | | | | 5.46% |
| 6 | AGL | k | = | 2.08% | + [ | 0.75 | x | ( | 9.90% | - | 5.40% | ) ] | = | 5.46% |
| 7 | ATO | k | = | 2.08% | + [ | 0.65 | x | ( | 9.90% | - | 5.40% | ) ] | = | 5.01% |
| 8 | LG | k | = | 2.08% | + [ | 0.60 | x | ( | 9.90% | - | 5.40% | ) ] | = | 4.78% |
| 9 | NJR | k | = | 2.08% | + [ | 0.65 | x | ( | 9.90% | - | 5.40% | ) ] | = | 5.01% |
| 10 | NWN | k | = | 2.08% | + [ | 0.60 | x | ( | 9.90% | - | 5.40% | ) ] | = | 4.78% |
| 11 | PNY | k | = | 2.08% | + [ | 0.65 | x | ( | 9.90% | - | 5.40% | ) ] | = | 5.01% |
| 12 | SJI | k | = | 2.08% | + [ | 0.65 | x | ( | 9.90% | - | 5.40% | ) ] | = | 5.01% |
| 13 | SWX | k | = | 2.08% | + [ | 0.75 | x | ( | 9.90% | - | 5.40% | ) ] | = | 5.46% |
| 14 | WGL | k | = | 2.08% | + [ | 0.65 | x | ( | 9.90% | - | 5.40% | ) ] | = | 5.01% |
| 15 | **NATURAL GAS LDC AVERAGE** | | | | | 0.66 | | | | | | | | 5.06% |

REFERENCES:
COLUMN (A): SHARPE LITNER CAPITAL ASSET PRICING MODEL ("CAPM") FORMULA

$$k = r_f + [\, ß\, (r_m - r_f)\, ]$$

WHERE: k = THE EXPECTED RETURN ON A GIVEN SECURITY
$r_f$ = RATE OF RETURN ON A RISK FREE ASSET PROXY (a)
ß = THE BETA COEFFICIENT OF A GIVEN SECURITY
$r_m$ = PROXY FOR THE MARKET RATE OF RETURN (b)

COLUMN (B): EXPECTED RATE OF RETURN USING THE CAPM FORMULA

NOTES

(a) AN 8-WEEK AVERAGE OF THE YIELD ON A 5-YEAR U.S. TREASURY INSTRUMENT THAT APPEARED IN VALUE LINE INVESTMENT SURVEYS "SELECTION & OPINIONS" PUBLICATION FROM 04/01/2011 THROUGH 05/20/2011 WAS USED AS A RISK FREE RATE OF RETURN.

(b) THE RISK PREMIUM (RM - RF) USED THE GEOMETRIC MEAN FOR S&P 500 TOTAL RETURNS OVER THE 1926 - 2010 PERIOD MINUS TOTAL RETURNS ON INTERMEDIATE TREASURIES DURING THE SAME PERIO THE DATA WAS OBTAINED FROM MORNINGSTAR'S STOCKS, BONDS, BILLS AND INFLATION: 2011 YEARBOOK.

GOODMAN WATER COMPANY
TEST YEAR ENDED DECEMBER 31, 2009
CAPM COST OF EQUITY CAPITAL

DOCKET NO. W-02500A-10-0382
SURREBUTTAL SCHEDULE WAR - 7
PAGE 2 OF 2

BASED ON AN ARITHMETIC MEAN:

| LINE NO. | STOCK SYMBOL | k | = | $r_f$ | + [ | (A) ß | x | ( | $r_m$ | - | $r_f$ | ) ] | = | (B) EXPECTED RETURN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | AWR | k | = | 2.08% | + [ | 0.75 | x | ( | 11.90% | - | 5.50% | ) ] | = | 6.88% |
| 2 | CWT | k | = | 2.08% | + [ | 0.70 | x | ( | 11.90% | - | 5.50% | ) ] | = | 6.56% |
| 3 | SJW | k | = | 2.08% | + [ | 0.90 | x | ( | 11.90% | - | 5.50% | ) ] | = | 7.84% |
| 4 | WTR | k | = | 2.08% | + [ | 0.65 | x | ( | 11.90% | - | 5.50% | ) ] | = | 6.24% |
| 5 | **WATER COMPANY AVERAGE** | | | | | 0.75 | | | | | | | | **6.88%** |
| 6 | AGL | k | = | 2.08% | + [ | 0.75 | x | ( | 11.90% | - | 5.50% | ) ] | = | 6.88% |
| 7 | ATO | k | = | 2.08% | + [ | 0.65 | x | ( | 11.90% | - | 5.50% | ) ] | = | 6.24% |
| 8 | LG | k | = | 2.08% | + [ | 0.60 | x | ( | 11.90% | - | 5.50% | ) ] | = | 5.92% |
| 9 | NJR | k | = | 2.08% | + [ | 0.65 | x | ( | 11.90% | - | 5.50% | ) ] | = | 6.24% |
| 10 | NWN | k | = | 2.08% | + [ | 0.60 | x | ( | 11.90% | - | 5.50% | ) ] | = | 5.92% |
| 11 | PNY | k | = | 2.08% | + [ | 0.65 | x | ( | 11.90% | - | 5.50% | ) ] | = | 6.24% |
| 12 | SJI | k | = | 2.08% | + [ | 0.65 | x | ( | 11.90% | - | 5.50% | ) ] | = | 6.24% |
| 13 | SWX | k | = | 2.08% | + [ | 0.75 | x | ( | 11.90% | - | 5.50% | ) ] | = | 6.88% |
| 14 | WGL | k | = | 2.08% | + [ | 0.65 | x | ( | 11.90% | - | 5.50% | ) ] | = | 6.24% |
| 15 | **NATURAL GAS LDC AVERAGE** | | | | | 0.66 | | | | | | | | **6.31%** |

REFERENCES:
COLUMN (A): SHARPE LITNER CAPITAL ASSET PRICING MODEL ("CAPM") FORMULA

$$k = r_f + [ß (r_m - r_f)]$$

WHERE: k = THE EXPECTED RETURN ON A GIVEN SECURITY
$r_f$ = RATE OF RETURN ON A RISK FREE ASSET PROXY (a)
ß = THE BETA COEFFICIENT OF A GIVEN SECURITY
$r_m$ = PROXY FOR THE MARKET RATE OF RETURN (b)

COLUMN (B): EXPECTED RATE OF RETURN USING THE CAPM FORMULA

NOTES

(a) AN 8-WEEK AVERAGE OF THE YIELD ON A 5-YEAR U.S. TREASURY INSTRUMENT THAT APPEARED IN VALUE LINE INVESTMENT SURVEYS "SELECTION & OPINIONS" PUBLICATION FROM 04/01/2011 THROUGH 05/20/2011 WAS USED AS A RISK FREE RATE OF RETURN.

GOODMAN WATER COMPANY
TEST YEAR ENDED DECEMBER 31, 2009
ECONOMIC INDICATORS - 1990 TO PRESENT

DOCKET NO. W-02500A-10-0382
SURREBUTTAL SCHEDULE WAR - 8

| LINE NO. | YEAR | (A) CHANGE IN CPI | (B) CHANGE IN GDP (1996 $) | (C) PRIME RATE | (D) FED. DISC. RATE | (E) FED. FUNDS RATE | (F) 91-DAY T-BILLS | (G) 30-YR T-BONDS | (H) A-RATED UTIL. BOND YIELD | (I) Baa-RATED UTIL. BOND YIELD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1990 | 5.39% | 1.90% | 10.01% | 6.98% | 8.10% | 7.50% | 7.49% | 9.86% | 10.06% |
| 2 | 1991 | 4.25% | -0.20% | 8.46% | 5.45% | 5.69% | 5.38% | 5.38% | 9.36% | 9.55% |
| 3 | 1992 | 3.03% | 3.30% | 6.25% | 3.25% | 3.52% | 3.43% | 3.43% | 8.69% | 8.86% |
| 4 | 1993 | 2.96% | 2.70% | 6.00% | 3.00% | 3.02% | 3.00% | 3.00% | 7.59% | 7.91% |
| 5 | 1994 | 2.61% | 4.00% | 7.14% | 3.60% | 4.21% | 4.25% | 4.25% | 8.31% | 8.63% |
| 6 | 1995 | 2.81% | 2.50% | 8.83% | 5.21% | 5.83% | 5.49% | 5.49% | 7.89% | 8.29% |
| 7 | 1996 | 2.93% | 3.70% | 8.27% | 5.02% | 5.30% | 5.01% | 5.01% | 7.75% | 8.17% |
| 8 | 1997 | 2.34% | 4.50% | 8.44% | 5.00% | 5.46% | 5.06% | 5.06% | 7.60% | 8.12% |
| 9 | 1998 | 1.55% | 4.20% | 8.35% | 4.92% | 5.35% | 4.78% | 4.78% | 7.04% | 7.27% |
| 10 | 1999 | 2.19% | 4.50% | 7.99% | 4.62% | 4.97% | 4.64% | 4.64% | 7.62% | 7.88% |
| 11 | 2000 | 3.38% | 3.70% | 9.23% | 5.73% | 6.24% | 5.82% | 5.82% | 8.24% | 8.36% |
| 12 | 2001 | 2.83% | 0.80% | 6.92% | 3.41% | 3.88% | 3.40% | 5.95% | 7.59% | 8.02% |
| 13 | 2002 | 1.59% | 1.60% | 4.67% | 1.17% | 1.67% | 1.61% | 5.38% | 7.41% | 7.98% |
| 14 | 2003 | 2.27% | 2.50% | 4.12% | 2.03% | 1.13% | 1.01% | 4.92% | 6.18% | 6.64% |
| 15 | 2004 | 2.68% | 3.60% | 4.34% | 2.34% | 1.35% | 1.37% | 5.03% | 5.77% | 6.20% |
| 16 | 2005 | 3.39% | 2.90% | 6.16% | 4.19% | 3.22% | 3.15% | 4.57% | 5.38% | 5.78% |
| 17 | 2006 | 3.24% | 2.80% | 7.97% | 5.96% | 4.97% | 4.73% | 4.91% | 5.94% | 6.30% |
| 18 | 2007 | 2.85% | 2.90% | 8.05% | 5.86% | 5.02% | 4.36% | 4.84% | 6.07% | 6.24% |
| 19 | 2008 | 3.84% | -6.80% | 5.09% | 2.39% | 1.92% | 1.37% | 4.28% | 6.34% | 6.64% |
| 20 | 2009 | -0.36% | 5.00% | 3.25% | 0.50% | 0.00% - 0.25% | 0.15% | 4.08% | 5.84% | 6.87% |
| 21 | 2010 | 1.64% | 2.80% | 3.25% | 0.72% | 0.00% - 0.25% | 0.13% | 4.25% | 5.50% | 5.98% |
| 22 | CURRENT | 3.20% | 1.80% | 3.25% | 0.75% | 0.00% - 0.25% | 0.02% | 4.66% | 5.33% | 5.78% |

REFERENCES:
COLUMN (A): 1990 - CURRENT, U.S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS WEB SITE
COLUMN (B): 1990 - CURRENT, U.S. DEPARTMENT OF COMMERCE, BUREAU OF ECONOMIC ANALYSIS WEB SITE
COLUMN (C) THROUGH (G): 1990 - 2003, FEDERAL RESERVE BANK OF ST. LOUIS WEB SITE
COLUMN (C) THROUGH (D): CURRENT, THE VALUE LINE INVESTMENT SURVEY, DATED 05/20/2011
COLUMN (F) THROUGH (I): CURRENT, THE VALUE LINE INVESTMENT SURVEY, DATED 05/20/2011
COLUMN (H) THROUGH (I): 1990 - 2000, MOODY'S PUBLIC UTILITY REPORTS
COLUMN (H) THROUGH (I): 2001, MERGENT 2002 PUBLIC UTILITY MANUAL
COLUMN (H) THROUGH (I): 2003 MERGENT NEWS REPORTS

GOODMAN WATER COMPANY
TEST YEAR ENDED DECEMBER 31, 2009
CAPITAL STRUCTURES OF SAMPLE COMPANIES

DOCKET NO. W-02500A-10-0382
SURREBUTTAL SCHEDULE WAR - 9

## AVERAGE CAPITAL STRUCTURES OF SAMPLE WATER COMPANIES

| LINE NO. | | AWR | PCT. | CWT | PCT. | WTR | PCT. | WATER COMPANY AVERAGE | PCT. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | DEBT | $ 299.8 | 44.3% | $ 479.2 | 52.4% | $ 1,532.0 | 56.6% | $ 770.3 | 53.8% |
| 2 | | | | | | | | | |
| 3 | PREFERRED STOCK | 0.0 | 0.0% | 0.0 | 0.0% | 0.0 | 0.0% | - | 0.0% |
| 4 | | | | | | | | | |
| 5 | COMMON EQUITY | 377.5 | 55.7% | 435.5 | 47.6% | 1,174.3 | 43.4% | 662.4 | 46.2% |
| 6 | | | | | | | | | |
| 7 | TOTALS | $ 677.4 | 100% | $ 914.7 | 100% | $ 2,706.2 | 100% | $ 1,432.8 | 100% |

## AVERAGE CAPITAL STRUCTURES OF SAMPLE NATURAL GAS COMPANIES

| LINE NO. | | AGL | PCT. | ATO | PCT. | LG | PCT. | NJR | PCT. | NWN | PCT. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | DEBT | $ 1,673.0 | 47.7% | $ 1,809.6 | 45.4% | $ 364.3 | 47.0% | $ 428.9 | 37.2% | $ 591.7 | 46.1% |
| 4 | | | | | | | | | | | |
| 5 | PREFERRED STOCK | 0.0 | 0.0% | 0.0 | 0.0% | 0.0 | 0.0% | 0.0 | 0.0% | 0.0 | 0.0% |
| 6 | | | | | | | | | | | |
| 7 | COMMON EQUITY | 1,836.0 | 52.3% | 2,178.3 | 54.6% | 411.3 | 53.0% | 725.5 | 62.8% | 693.1 | 53.9% |
| 8 | | | | | | | | | | | |
| 9 | TOTALS | $ 3,509.0 | 100% | $ 3,987.9 | 100% | $ 775.6 | 100% | $ 1,154.4 | 100% | $ 1,284.8 | 100% |
| 10 | | | | | | | | | | | |
| 11 | | | | | | | | | | | |
| 12 | | | | | | | | | | | |
| 13 | | PNY | PCT. | SJI | PCT. | SWX | PCT. | WGL | PCT. | NATURAL GAS LDC AVERAGE | PCT. |
| 14 | | | | | | | | | | | |
| 15 | DEBT | $ 671.9 | 41.0% | $ 340.0 | 37.4% | $ 1,169.4 | 49.3% | $ 592.9 | 33.4% | $ 849.1 | 43.9% |
| 16 | | | | | | | | | | | |
| 17 | PREFERRED STOCK | 0.0 | 0.0% | 0.0 | 0.0% | 100.0 | 4.2% | 28.2 | 1.6% | $ 14.2 | 0.7% |
| 18 | | | | | | | | | | | |
| 19 | COMMON EQUITY | 964.9 | 59.0% | 570.1 | 62.6% | 1,102.1 | 46.5% | 1,153.4 | 65.0% | 1,070.5 | 55.4% |
| 20 | | | | | | | | | | | |
| 21 | TOTALS | $ 1,636.9 | 100% | $ 910.1 | 100% | $ 2,371.4 | 100% | $1,774.4 | 100% | $ 1,933.8 | 100% |
| 22 | | | | | | | | | | | |
| 23 | | | | | | | | | | | |
| 24 | | WATER & LDC AVERAGE | PCT. | | | | | | | | |
| 25 | | | | | | | | | | | |
| 26 | | | | | | | | | | | |
| 27 | DEBT | $ 809.7 | 48.1% | | | | | | | | |
| 28 | | | | | | | | | | | |
| 29 | PREFERRED STOCK | 7.1 | 0.4% | | | | | | | | |
| 30 | | | | | | | | | | | |
| 31 | COMMON EQUITY | 866.5 | 51.5% | | | | | | | | |
| 32 | | | | | | | | | | | |
| 33 | TOTALS | $ 1,683.3 | 100% | | | | | | | | |

REFERENCE:
MOST RECENT SEC 10-K FILINGS OR ANNUAL REPORTS

# GOODMAN WATER COMPANY

# DOCKET NO. W-02500A-10-0382

# SURREBUTTAL TESTIMONY

# OF

# TIMOTHY J. COLEY

# ON BEHALF OF

# THE

# RESIDENTIAL UTILITY CONSUMER OFFICE

# JUNE 13, 2011

1 **TABLE OF CONTENTS**

2

3 **INTRODUCTION** ..... 1

4 **SUMMARY OF RECOMMENDATIONS** ..... 2

5 **Required Revenue** ..... 2

6 **Rate Base Adjustments** ..... 2

7 Adjustment No. 1 - Accumulated Depreciation ..... 2

8 Adjustment No. 2 – Excess Capacity ..... 2

9 Adjustment No. 3 – Advances in Aid of Construction ("AIAC") ..... 3

10 Adjustment No. 4 – Accumulated Deferred Income Taxes ("ADIT") ..... 3

11 **Operating Income Adjustments** ..... 3

12 Adjustment No. 1 – Depreciation Expense ..... 3

13 Adjustment No. 2 – Property Tax ..... 3

14 Adjustment No. 3 – Revenue and Expense Annualization ..... 4

15 Adjustment No. 4 – Salaries & Wages ..... 4

16 Adjustment No. 5 – Contractual Services ..... 4

17 Adjustment No. 6 – Water Testing ..... 4

18 Adjustment No. 7 – Income Tax ..... 4

19 **Rate Design** ..... 5

20 **Other Issues** ..... 5

21 **ORIGINAL COST RATE BASE ("OCRB") ADJUSTMENTS** ..... 8

22 Adjustment No. 1 – Accumulated Depreciation ..... 8

23 Adjustment No. 2 – Excess Capacity ..... 8

1 Adjustment No. 3 – Advances in Aid of Construction ("AIAC") ..... 38
2 Adjustment No. 4 – Accumulated Deferred Income Taxes ("ADIT") ..... 40
3 **OPERATING INCOME ADJUSTMENTS** ..... 40
4 Adjustment No. 1 – Depreciation Expense ..... 41
5 Adjustment No. 2 – Property Tax Expense ..... 43
6 Adjustment No. 3 – Revenue and Expense Annualization ..... 43
7 Adjustment No. 4 – Salaries and Wages ..... 43
8 Adjustment No. 5 – Contractual Services ..... 45
9 Adjustment No. 6 – Water Testing Expense ..... 46
10 Adjustment No. 6 – Income Tax Expense ..... 47
11 **RATE DESIGN** ..... 47
12 **OTHER ISSUES** ..... 51

## INTRODUCTION

Q. Please state your name for the record.

A. My name is Timothy J. Coley.

Q. Have you previously filed testimony regarding this docket?

A. Yes, I have. I filed direct testimony in this docket on March 21, 2011.

Q. What is the purpose of your surrebuttal testimony?

A. My surrebuttal testimony will address Goodman Water Company's ("GWC" or "Company") rebuttal comments pertaining to the adjustments I recommended in my direct testimony. This testimony will address RUCO's recommended revenue requirements, rate base, operating revenue and expense adjustments along with rate design. As a final issue, I will propose a hookup fee ("HUF") that the Commission may consider.

The Director of RUCO, Ms. Jodi Jerich, will sponsor separate testimony on RUCO's policy issues pertaining to GWC's excess capacity. Ms. Jerich will also sponsor RUCO's position regarding the Company's additional rebuttal rate case expense request.

Mr. William Rigsby will sponsor RUCO's recommended cost of capital for the Company.

## SUMMARY OF RECOMMENDATIONS

### Required Revenue

Q. What are RUCO's recommended surrebuttal revenue requirements for GWC?

A. RUCO's recommended Original Cost and Fair Value Rate Base ("OCRB" and "FVRB") is $1,755,118. The total increase in gross revenue is $8,715.

### Rate Base Adjustments

Adjustment No. 1 - Accumulated Depreciation – This is the same adjustment that RUCO made in its direct testimony and was fully explained there. The adjustment corrected a Company depreciation expense formula and increased accumulated depreciation by $3,268 accordingly.

Adjustment No. 2 – Excess Capacity – RUCO's surrebuttal excess capacity methodology differs from the methodology RUCO used in its direct testimony. However, I did mention this alternative methodology in my direct testimony on pages 15 and 16. The adjustment reduces plant in service by $1,360,580 and accumulated depreciation by $269,307, which RUCO deems as excess capacity. This will be discussed in great detail later.

Adjustment No. 3 – Advances in Aid of Construction ("AIAC") – This is a corresponding adjustment to RUCO's rate base adjustment #2 above for AIAC. The adjustment reduces the AIAC balance by $497,983 thereby increasing rate base accordingly. This too will be discussed in greater detail later.

Adjustment No. 4 – Accumulated Deferred Income Taxes ("ADIT") – This adjustment is a result of RUCO's three previous rate base adjustments to plant, accumulated depreciation, and AIAC. The adjustment increases the ADIT liability balance by $50,545 thereby decreasing rate base correspondingly.

**Operating Income Adjustments**

Adjustment No. 1 – Depreciation Expense – This adjustment is the result of RUCO's recommended plant balances that RUCO deems as used and useful. The adjustment reduces the Company's depreciation expense by $44,136.

Adjustment No. 2 – Property Tax – This adjustment is the result of RUCO's recommended levels of gross revenues. The adjustment reduces the Company's property tax expense by $3,570.

Adjustment No. 3 – Revenue and Expense Annualization – RUCO accepts the Company's revised rebuttal revenue and expense annualization calculation. The adjustment increases revenue by $21,708 and purchased power by $577 on a going forward basis.

Adjustment No. 4 – Salaries & Wages – This adjustment was explained in my direct testimony. It reduces salary and wage expense by $4,986 based on the Consumer Price Index ("CPI"). An additional complementary adjustment to taxes other than income tax expense associated with these salaries and wages was made that reduced those taxes by $372.

Adjustment No. 5 – Contractual Services – This adjustment was explained in my direct testimony also. It reduces contractual services expense by $2,493 based on the CPI too. No additional complementary adjustment to taxes other than income tax expense is necessary for this adjustment.

Adjustment No. 6 – Water Testing – The Commission Engineering Staff recommended this adjustment in its direct testimony to increase water testing expense by $1,568. RUCO hereby adopts Staff's proposed adjustment here in its surrebuttal testimony.

Adjustment No. 7 – Income Tax – This adjustment is a direct result of RUCO's level of operating income less income taxes that is taxed by the

federal and state governments. The adjustment increases income tax expense by $17,162.

**Rate Design**

Q. What type of rate design is RUCO recommending?

A. RUCO is recommending a rate design that is quite similar to what the Company proposes but of course using RUCO's recommended increase in gross revenue. The rate design consists of three-inverted blocks of rates for the 5/8 x 3/4 inch and ¾ inch meters for all classes of customers. The remaining meter sizes consist of two-inverted blocks of rates. RUCO utilizes the same break-over points of usage that the Company proposes. Both RUCO and the Company propose shifting more revenue to the commodity charge rather than the monthly minimum as the present rates currently do. The rates are shown on RUCO's Rate Design Schedules TJC RD-1 thru TJC RD-7.

**Other Issues**

<u>Hookup Fee ("HUF") Tariff</u>

Q. Is RUCO proposing a HUF in the instant case for GWC?

A. Yes.

Q. Please describe the HUF that RUCO proposes?

A. RUCO proposes the following HUF:

RUCO's Proposed Off-site Facilities Hook-up Fees bv Meter Size

| Meter Size | Amount | |
|---|---|---|
| 5/8 Inch | $ 150 | |
| 3/4 Inch | 225 | Scaled on 5/8 meter flow |
| 1 Inch | 375 | Scaled on 5/8 meter flow |
| 1 1/2 Inch | 750 | Scaled on 5/8 meter flow |
| 2 Inch | 1,200 | Scaled on 5/8 meter flow |
| 3 inch | 2,400 | Scaled on 518 meter flow |
| 4 Inch | 3,750 | Scaled on 5/8 meter flow |
| 6 Inch | 4,500 | Scaled on 5/8 meter flow |

Q. How did RUCO determine its proposed HUF tariff?

A. In the Company's response to RUCO data request 4.08, GWC stated, "The Company's construction expenditures in 2010 were approximately $5,500. These expenditures related to meter and meter installations, and were recorded accordingly." The Company's 2010 Annual Report indicates that GWC added 40 new customers since Mr. Bourassa's revised rebuttal Schedule H filing. That results in approximately $150 of capital expenditures per new connection as shown above for the 5/8 inch meter. The remaining meters are scaled on the 5/8 meter using the NARUC meter multiplier.

Since the Company has plant in place to serve up to 1,800 customers[1], the HUF fee needs only to cover the costs of the meters and their installation. Any amount higher than this would provide the utility excess cash beyond the true costs of the hook-up.

Q. How does RUCO propose the Company record the HUF?

A. RUCO proposes that the Company should record the HUF as contributions in aid of construction.

Deferred Depreciation Expense Accounting Order

Q. Is RUCO proposing the Commission adopt an accounting order that would allow the Company to recover the depreciation expense forgone from RUCO excluding the plant from rate base in its excess capacity adjustment?

A. Yes. Exclusion of the excess capacity in current rates merely changes from whom the costs are recovered and when. When growth actually occurs, the full amount of the investment found at that time to be prudent would receive rate base treatment and rate recovery. RUCO also recommends that any excess capacity disallowance in this case carry with it an accounting order that would allow the Company to eventually recover any depreciation expense that accrued on the excess capacity prior to the time it was placed in rate base. This would be accomplished through a

[1] Staff Report, September 2, 2010, p. 2.

deferral accounting order and eventual amortization when the capacity becomes used and useful. Thus, once new customers materialize and the excess portions of the plant are placed in rate base, the Company would be made whole.

**ORIGINAL COST RATE BASE ("OCRB") ADJUSTMENTS**

Adjustment No. 1 – Accumulated Depreciation

Q. Please explain RUCO's adjustment that increased the Company's accumulated depreciation balance by $3,268?

A. This adjustment was explained in detail in my direct testimony. In short, the adjustment corrected the Company's depreciation expense formulae in year 2007 when two different depreciation rates were utilized.

Q. Did the Company accept RUCO's correction to the depreciation expense calculation for year 2007?

A. Yes. The Company made rebuttal adjustment #2 labeled (C) that corrected the depreciation expense calculation for year 2007.

Adjustment No. 2 – Excess Capacity

Q. Did the Company accept RUCO's excess capacity adjustment?

A. No. However, the Company did make two adjustments that reduced plant in service by $107,350, which could be viewed as excess capacity adjustments.

Q. How did the Company respond to RUCO's excess capacity adjustment?

A. The Company said it "strongly disagrees with RUCO's arithmetic approach and resulting conclusion." In essence, the Company claims I am unqualified to make an excess capacity adjustment since I am not a licensed professional engineer. GWC also stated that, "Under RUCO's approach, RUCO eliminates 43% of the cost of the 400,000 gallon storage tank at Water Plant No. 1."

The Company is critical of RUCO's excess capacity adjustment on several other points. First the Company stated, "RUCO also eliminates 43% of the meter costs even though there are only 649 meters installed at the end of the test year and the fact that there were over 620 active customers at the end of the test year. In other words, RUCO's recommendation only recognizes the cost of about 370 meters (649 X 57%)." Second, the Company stated "that RUCO eliminates 43% of the cost of the Company's two (2) wells. Whereas, Mr. Scott and Mr. Taylor find that both wells are necessary and used and useful."

Finally, the Company concludes that the basis for RUCO's excess capacity adjustment was flawed because "RUCO believes the Company over-anticipated GWC's build-out date and constructed plant to serve the projected build out. However, Mr. Coley's analysis is an after-the-fact analysis. As previously indicated, the Company acted prudently in

building plant based upon what was known at the time the plant design and construction decisions were made."

Q. How do you respond to the Company's assertions regarding RUCO's excess capacity adjustment?

A. First, I agree with the Company that I am not a licensed professional engineer. But as this Commission has made clear before, one does not have to be an engineer to determine what plant is used and useful. In Decision No. 58743, in the matter of the Application of Pima Utility, this Commission said:

> Although there was evidence that a small percentage of this additional plant may be considered used and useful from an engineering perspective, as of the date of this hearing, for ratemaking purposes this additional plant is not used and useful under the circumstances."

I am also not an attorney, but I am a rate analyst, and the Commission has made it clear in numerous cases, including Pima Utility and the recent Gold Canyon case, Decision No. 70624, that excess capacity is not reserved only for the opinion of an engineer. The Company's one-dimensional view of this issue flies in the face of what this Commission has decided on this issue historically.

All intervening parties in this case made an excess capacity adjustment to some varying degree in direct testimonies except for the Company until its rebuttal testimony. It is obvious to most of us that some level of excess

capacity exists either through an engineering analysis or an accounting analysis.

Even Staff's engineer has concluded that there is excess capacity. Staff and the Company cannot even agree on what an appropriate "engineering analysis" should be. They both have a different "planning horizon".

RUCO's analysis included recognition of the Company's engineering design and Staff's engineering reports over several years. In fact in RUCO's direct testimony schedules, RUCO's denominator in its excess capacity factor came straight from Westland Resources, Inc., which outlines the "Planning and Design Criteria EDU's" that was used to design GWC's water system. I would contend that RUCO's methodology to make its excess capacity adjustment is more than a mere "arithmetic approach." The calculation is 50 percent of actual customer growth (accounting in nature) and 50 percent from an engineering firm's design report that designed GWC's water system.

Q. Mr. Coley, from the 500 foot level, why does RUCO believe its excess capacity methodology is preferable to the Company and Staff's?

A. The Company and Staff have performed an "engineering analysis" to determine excess capacity. The "engineering analysis" looks at a "planning horizon" which includes estimates of customer growth over a

five year period. Under the engineering approach, as long as the estimates were reasonable at they time they were made, the plant that was built to serve the growth is recoverable.

From RUCO's perspective, the problem with the "engineering analysis" is that the risk that the customer growth will not occur is all placed on the current ratepayers. In cases like the present case where the growth estimates were grossly overstated, the current ratepayers are being asked to shoulder a very heavy burden. Only in a regulatory environment can such a lopsided analysis ever be considered. This is further supported and discussed in Ms. Jerich's testimony.

As Ms. Jerich's testimony will explain, RUCO does not buy into the "engineering analysis". Rather, RUCO's position is that the current customers should only have to pay for the plant designed for them that is currently and actually being used. This is a standard and well known ratemaking principle and should not be abandoned here.

The utility's claim that RUCO's position is a disincentive for the utility to build new plant because the utility will not recover its costs if their growth projections are wrong. RUCO recognizes this concern and agrees that it is a valid concern. In response, RUCO proposes a "reserve margin" which is an amount of excess capacity, not the full amount, consistent with the facts and circumstances of any given case that will allow the utility's

recovery of a portion of the excess capacity for the purpose of providing an incentive to build.

RUCO's position, conceptually, is a mitigating position designed to balance the risk between shareholders and ratepayers of un-obtained growth. Without that balance, the Company has no incentive to check its growth projections. Furthermore, RUCO has never proposed that the Company not recover that portion of the excess capacity that is denied. RUCO agrees that the Company should recover the excess capacity when it becomes used and useful.

Q. Please address the Company's assertion that RUCO's excess capacity adjustment eliminates 43 percent of a 400,000 gallon storage tank at Water Plant No. 1.

A. I agree with the Company that RUCO's direct testimony excess capacity adjustment did indeed remove approximately 43 percent of the 400,000 gallon storage tank at Water Plant No. 1. The adjustment has been modified and updated in RUCO's surrebuttal excess capacity adjustment, which now allows recovery of 100 percent of that water storage tank. This is reflected in RUCO's Surrebuttal Schedule TJC-5. RUCO's surrebuttal adjustment for excess capacity will be discussed in great detail later in this testimony.

Q. Please respond to the Company's claim that RUCO's direct testimony adjustment for excess capacity eliminates 43% of the meter costs.

A. RUCO again agrees with the Company's claim that RUCO's excess capacity methodology that was utilized in its direct testimony did in fact remove approximately 43 percent of the meter costs. This too has been modified and updated in surrebuttal testimony. Now, 100 percent of the meters are considered to be used and useful. This is also reflected in RUCO's Surrebuttal Schedule TJC-5.

In addition to the meter costs, RUCO also modified and updated its direct testimony excess capacity adjustment here in the surrebuttal phase to account for the services and hydrants accounts as 100 percent used and useful as shown on RUCO Schedule TJC-5 too.

Q. Please respond to the Company's assertion that RUCO eliminated 43 percent of the cost of the Company's two wells in its direct testimony excess capacity adjustment.

A. RUCO agrees with the Company that the direct testimony adjustment for excess capacity did eliminate approximately 43 percent of the two wells. Again, this adjustment has been modified and updated in RUCO's surrebuttal testimony. RUCO now recognizes the two wells as being 100 percent used and useful. This is shown on RUCO Surrebuttal Schedule TJC-5 also.

Q. Earlier you mentioned the Company made two rebuttal adjustments that reduced plant in service by $107,350, what two adjustments did GWC make in its rebuttal filing that reduced plant in service by the $107,350?

A. The Company claimed to remove the "cost" of over sizing the 530,000 gallon water storage tank plant addition at Water Plant No. 3, which the Company claimed the cost was $72,350. In addition, GWC reduced the cost of an inter-Company land acquisition by $35,000 for a total Company rebuttal adjustment of $107,350.

Q. Does RUCO agree with the Company's rebuttal adjustments to plant in service that reduces rate base by $107,350?

A. RUCO agrees that an adjustment is necessary to reduce plant in service for both of the accounts referenced above. However, RUCO does not believe the Company's adjustments go far enough. The Company appears to have made a small acknowledgement of excess capacity, but the evidence demands a much larger adjustment.

Q. What adjustments does RUCO recommend for the land and storage tanks accounts in its surrebuttal testimony?

A. Both RUCO and the Commission Staff recommend the Commission adopt much larger adjustments for both of the accounts. RUCO recommends reducing the land account by $225,673 while Staff recommended a direct testimony adjustment that decreases the cost basis of the Company's

2008 land purchase by $369,500 because it was a non-arm's-length transaction.

As for the storage tank over sizing adjustment, RUCO recommends an adjustment to reduce the account balance by $194,456. Staff recommended decreasing the storage tank account by $185,049 in its direct testimony. I might add that the Eagle Crest Ranch Subdivision Homeowners ("ECR") also recommended reducing both of the accounts.

Q. What amounts did ECR recommend to decrease the land and storage tank accounts by?

A. From reviewing their testimony, it is difficult to determine the exact amounts that ECR is recommending, but its overall excess capacity adjustment recommendation is in the ballpark of both RUCO and Staff's recommendations regarding those two accounts.

Q. Specifically, does RUCO agree with the Company's adjustment to reduce the cost for "over sizing" the storage tank account by $72,350?

A. No.

Q. Please explain RUCO's reason for disagreeing with the Company's $72,350 reduction for "over sizing" the storage tank account for Water Plant No. 3.

A. The "over sizing" was a direct result of the Company's intention to serve an additional or extension of GWC's current Certificate of Convenience & Necessity ("CC&N") located west of Oracle Road. Since the Company "over sized" the tank by 190,000 gallons, RUCO's rationale was that the Company "over sized" the tank by 35.85 percent (190,000 gallons / 530,000 gallons = 35.85 percent). RUCO's excess capacity factor of 35.85 was multiplied by the $542,431 of the total storage tank plant additions in 2007 and 2008 for Water Plant No. 3. All costs associated with Water Plant No. 3 should be subject to the excess capacity adjustment and <u>not</u> just the additional metal that it took to "over size" the tank vessel itself.

Q. Does RUCO have any other concerns regarding the "over sizing" of Water Plant No. 3 storage tank?

A. Yes. The Company booked $72,350 in 2007 of what it describes as the cost for the storage tank's "over sizing" while the remaining $470,081 to complete the tank's construction was <u>not</u> booked until one-year later in 2008. This appears to be a classic case of putting the buggy in front of the horse to RUCO. At the time of this writing, RUCO has issued a data request seeking more information about this bizarre booking of costs. The

question is how one knows its precise costs before something is completely built and all invoices have been issued and received.

RUCO's excess capacity storage tank adjustment of $194,456 is reflected in surrebuttal Schedule TJC-5.

Q. In your surrebuttal summary of rate base adjustments section, you mentioned that RUCO's methodology in calculating its excess capacity differed in direct testimony than what RUCO proposes here in surrebuttal testimony. What is the primary difference in RUCO's methodology regarding its surrebuttal excess capacity adjustment?

A. The primary difference is RUCO's surrebuttal methodology focuses solely on GWC's plant additions since its last rate case and takes dead aim at those plant items. I will fully discuss this methodology in more detail next.

Q. Why did RUCO modify its methodology in surrebuttal?

A. The Company's rate analyst, Thomas Bourassa, stated, among other things that "RUCO uses the shotgun approach and reduces the cost of all plant without consideration as to whether plant is actually necessary and used and useful." RUCO does not necessarily agree with Mr. Bourassa on this issue as is discussed further in Ms. Jerich's testimony. However, the Company has raised some valid points and rather than parse arguments, RUCO has reconsidered its methodology for calculating its

excess capacity adjustment. RUCO's surrebuttal methodology is more adapted to the facts and circumstances of this case. RUCO's surrebuttal methodology is more of a rifle than shotgun shot approach aimed directly at the Company's plant additions since GWC's last rate case. Specifically, it is the Company's following eight plant accounts that RUCO deems as having excess capacity:

1. Organization
2. Land
3. Structures & Improvements
4. Electric Pumping Equipment
5. Water Treatment Equipment
6. Reservoirs & Standpipe
7. Transmission & Distribution Mains
8. Other Plant & Misc. Equip.

Q. Please explain the difference in RUCO's direct and surrebuttal methodologies for determining its excess capacity calculation in more detail.

A. RUCO's excess capacity methodology differs from its direct testimony in essentially two aspects. For comparative purposes, I will briefly summarize RUCO's direct excess capacity methodology. RUCO simply utilized the number of customer counts at the end of year 2010 - one-year post test year end – and added a ten percent reserve margin[2] (666 x 1.10 = 733). The number of customers at the end of year 2010 including the 10 percent reserve margin (733) was then divided by 1,288[3] equivalent

[2] Ms. Jerich discusses RUCO's ten percent reserve margin for this case in detail in her testimony.
[3] The 1,288 EDU's was reported by the Company in a compliance filing to the Commission, dated July 31, 2007 and was attached as an exhibit in RUCO's direct testimony as RUCO Exhibit 3. As

dwelling units ("EDU's") that the system was engineered and designed to serve (733 / 1,288 = 56.88%) to obtain the used and useful factor of 56.88 percent. The 56.88 percent used and useful factor was then multiplied by all total plant account balances, which resulted in RUCO's used and useful plant in service recommendation of $3,102,039 and was shown on RUCO's Direct Schedules TJC-5, TJC-3, and TJC-2.

Q. Please explain RUCO's surrebuttal methodology in determining its used and useful factor to account for GWC's excess capacity?

A. RUCO's surrebuttal excess capacity methodology measures the customer and plant growth on a percentage basis since the Company's last rate case, which utilized a test year end of September 30, 2005. In other words, it does not include plant and customers from the last rate case and earlier. GWC had **459** customers at the end of that test year. As in RUCO's direct testimony, RUCO simply utilized the number of customer counts at the end of year 2010 - one-year post test year end – and added a reserve margin of ten percent (666 customers x 1.10 reserve margin = **733**[4] customers) to obtain RUCO's first number in its customer growth calculation since GWC's last rate case.

a sanity check, RUCO utilized the Company's response to an "Intervenor's" data request number 3 labeled as Appendix "A" and was attached as RUCO Exhibit 4 in the same testimony.

[4] This number is rounded for presentation purposes. The actual number is 732.6.

Next, I subtract the **459** customers that GWC served in its last rate case at test year end September 30, 2005 from the **733** customers, as calculated above, which results in a customer growth number of **274** customers (733 – 459 = **274** additional customers) since GWC's last rate case. The **274** additional customers since the last rate case is then divided by the **459** customers GWC served at test year end September 30, 2005 (274 / 459 = **59.61%** customer growth rate since GWC's last rate case) that results in the **59.61** percent of customer growth since the Company's last rate case.

The final number of RUCO's surrebuttal excess capacity methodology measures GWC's plant growth in dollars since the Company's last rate case also. Commission Decision No. 69404, dated April 16, 2007, authorized $2,365,813 of gross plant in service. The Company has added $3,087,948 of plant additions since that previous rate case. That results in a **130.52** percent increase ($3,087,948 plant additions / $2,365,813 plant authorized in last rate case = **130.52%** increase in plant) in plant additions since September 30, 2005.

RUCO derives its surrebuttal used and useful factor of **45.67** percent, shown on Surrebuttal Schedule TJC-5, by dividing the customer growth rate of **59.61** percent, including the reserve margin, by the additional plant growth of **130.52** percent (59.61% customer growth / 130.52% plant growth = **45.67%**) since the Company's last rate case. Unlike RUCO's

direct testimony excess capacity methodology, RUCO's surrebuttal used and useful factor of **45.67** percent is multiplied by only the corresponding plant additions since GWC's last rate case.

Q. Did RUCO provide any direct testimony regarding its current surrebuttal excess capacity methodology?

A. Yes. RUCO's direct testimony on pages 15 and 16 summarized the methodology that is used here in its surrebuttal testimony. In addition, RUCO filed direct errata testimony that further discussed the excess capacity methodology used in its surrebuttal testimony.

Q. When answering the following question, please refer to the scenario in the table below:

| Year | Number of Customers | Percentage of Customer Growth |
|---|---|---|
| 2006 | 484[5] | |
| 2007 | 579[6] | 20% |
| 2008 | 695[7] | 20% |
| 2009 | 834[8] | 20% |
| 2010 | 1,001[9] | 20% |

[5] GWC's actual year end customer counts in the Company's Annual Report filed with the ACC.
[6] Id.
[7] The projected 20% customer growth rate from the previous year.
[8] Id.
[9] Id.

Would RUCO be recommending an excess capacity adjustment in this case if the Company had actually experienced an annual growth rate of 20 percent through 2010?

A. No.

Q. Why not?

A. To plug those numbers, as shown in that table into RUCO's surrebuttal excess capacity calculation, as explained earlier, it would produce the following result:

(1,001 customers x 1.10 reserve margin) = **1,101**

$$\frac{1{,}101 - 459^{10}}{459} = \frac{642}{459} = 140\% \text{ customer growth}$$

As one can see, the 140 percent of customer growth since the Company's last rate case would exceed the 130.52 percent plant growth measured in dollars over the same time period as shown on the previous page. There would be no excess capacity in this scenario because customer growth did not lag behind the plant growth. However, this scenario did not play out. Thus, excess capacity exists that was built to serve future growth that does not exist today. The current ratepayers of GWC should not be held

[10] GWC's actual test year end September 30, 2005 customer count.

completely responsible for the Company's errant growth projections, which are shown and evidenced in RUCO's Exhibit 1.

Q. Did RUCO make any unique excess capacity adjustments for any of GWC's rate base items that did not utilize RUCO's 45.67 percent used and useful factor explained on the previous pages?

A. Yes. RUCO made two unique used and useful adjustments when accounting for its excess capacity adjustment(s).

Q. Please explain RUCO's excess capacity adjustments to the two rate base items that did not utilize the 45.67 percent used and useful factor that RUCO calculated and explained earlier?

A. The first rate base item concerns the plant account of Distribution Reservoirs & Standpipe. This was briefly discussed earlier. In determining the excess capacity factor for that account, RUCO simply divided the "over sized" 190,000 gallons, which the Company admitted to in its rebuttal testimony, by the 530,000 gallon total capacity of the storage tank (190,000 / 530,000 = 35.85%) to obtain the 35.85 percent excess capacity factor. The used and useful factor is the reciprocal of the excess capacity factor, which is 64.15 percent. The 64.15 percent was multiplied by the 2007 and 2008 Distribution Reservoirs & Standpipe plant additions totaling $542,431 since GWC's last rate case that resulted in $347,975

(64.15% x $542,431 = $347,975[11]) as being used and useful and the remaining $194,456 deemed as excess capacity, as previously noted on page 13. Please refer to that page for a further discussion regarding this storage tank adjustment.

Q. What is the second rate base item that RUCO utilized a different and unique used and useful factor when making its excess capacity adjustments?

A. The second rate base item that had a different and unique used and useful factor, other than the 45.67 percent referenced earlier, for the calculation of the excess capacity adjustment was AIAC. This will be discussed and explained more fully later in the surrebuttal adjustment section for AIAC.

Q. Is RUCO still asserting that the fire flow upgrades are a primary driver in its excess capacity adjustment?

A. No. In response to RUCO data request 4.05, the Company stated GWC "did not pay for or otherwise record any costs for upgrading the fire flow capacity for Water Plant #4." Although when first asked by the "Interveners" in data request 3.04, GWC requested more time to look into the fire flow upgrade costs and would provide a supplemental response later. RUCO never saw the Company's supplemental response to the

[11] Due to rounding the percentage in the calculation.

"Interveners" for this issue. The Company apparently did not know what it had paid for and what D. R. Horton Homes had paid for. That was somewhat confounding to RUCO.

Q. Is RUCO recommending the same excess capacity methodology as it did in the Gold Canyon case?

A. No. Gold Canyon involved a completely different set of facts and circumstances. RUCO's argument on excess capacity is the same, but the calculation used to arrive at its adjustment is different.

In Gold Canyon, RUCO calculated a reserve margin. The reserve margin was calculated as follows:

> As shown on Schedule RLM-4 under the heading "NOTE", the Company's data indicates at the end of 2005 the influent flow rate at the Gold Canyon Water Reclamation Facility was 0.708 mgd out of a maximum capacity of 1.9 mgd. This indicates that 62.74 percent of the total capacity in the new treatment plant is in excess of the test-year ratepayers needs. However, to incorporate an "excess reserve" component I selected the projected flow rate at the end of 2008 of 1.367 mgd (equating to an excess capacity of 28.05 percent) as a reasonable determinant to calculate the percentage of excess capacity at this wastewater treatment plant.

In the instant case, RUCO determined a 10 percent reserve margin is more appropriate. First, RUCO realizes that a water system cannot be designed to serve the exact same number of current customers in an economically feasible manner. Over the short-run or a period of one-year or less, there may be some excess capacity in a water system that is inevitable if we seek economies of scale. But, there should not be excess capacity over the long-run, particularly with water systems. In essence, excess capacity results in higher rates to the current ratepayers and is inherently unfair.

The Company's growth projection miscalculations should not be the entire burden of the current ratepayers. This is more fully addressed in Ms. Jerich's testimony too.

Second, RUCO's 10 percent reserve margin exceeds the Company's 6 percent customer growth rate from year 2009 to 2010. The reserve margin of 10 percent allows ample time for the Company to make any necessary service line connections and meter installations.

Finally, RUCO has balanced the risks between the current ratepayers and the shareholders by its proposal to use a 10 percent margin of reserve. Moreover, RUCO's proposal will incent utilities to build capacity as needed to meet its customers' new service connections.

In both cases, the reserve margin benefits the utility. It also shifts some of the risk that growth will not occur from the ratepayer to the shareholder. At the same time, it provides the Company incentive to build the plant necessary to meet its customers' needs.

Q. Are there any other issues pertaining to the Company's rebuttal comments regarding RUCO's excess capacity adjustment and/or points of clarification that RUCO wishes to address?

A. Yes.

Q. Please continue.

A. RUCO will present another way to analyze the impact of the additional $3.1 million in plant additions on a per customer basis, which produces much the same results as what RUCO recommends in its surrebuttal schedules for GWC's revenue requirement. The analysis will look at what the year end plant values and per year end customer counts were over a period of years of 2003 thru 2012[12]. The analysis divides the total year end plant values by the year end customer counts (i.e. for test year end 2009 the calculation would be $5,453,761 / 626 = $8,712), which results in a plant value per customer using the following data point table (See RUCO Exhibit 2 – Pages 1 thru 4):

[12] Years 2011 and 2012 were projected at the 2009 to 2010 customer and plant growth rates of 40 and $5,500 respectively.

| Year | Year End Plant Value | Year End Customers | Plant Per Customer |
|---|---|---|---|
| 2003 | $ 1,639,314 | 202 | $ 8,115 |
| 2004 | 2,044,028 | 370 | 5,524 |
| 2005 | 2,697,594 | 479 | 5,632 |
| 2006 | 2,716,303 | 484 | 5,612 |
| 2007 | 3,686,972 | 579 | 6,368 |
| 2008 | 5,424,334 | 612 | 8,863 |
| 2009 | 5,453,761 | 626 | 8,712 |
| 2010 | 5,459,261 | 666 | 8,197 |
| 2011 | 5,464,761 | 706 | 7,741 * |
| 2012 | 5,470,261 | 746 | 7,334 * |

- Projected at 2010 customer and plant growth levels of 40 additional customers and $5,500 of additional capital expenditures for meter and service installations.

That data shows that the plant value per customer is higher in years 2008 and 2009 than any other years since the conception of GWC.

Q. That is true Mr. Coley, but isn't the plant value per customer in 2003 also high?

A. Yes, but the Company was experiencing significant growth at that time. The following year in 2004 there was a significant drop in the plant value per customer from $8,115 in year 2003 to $5,524 in year 2004 because of the 83 percent customer growth rate during those years.

To expand on the analysis using the same data point table above, one could also calculate the average and median plant values per customer over the seven-year period of 2003 thru test year end 2009. The average plant value per customer over the seven-year period is $6,975 while the median is $6,368 of plant value per customer over the same time period.

Referring back to the data point table for test year end 2009, the 2009 plant value per customer, shown in the last column to the right, shows that GWC's ratepayers are saddled with $8,712[13] of plant per customer. This is graphically shown in RUCO's Exhibits 3 and 4. Whereas, the average and median plant value per customer over the seven-year period was $6,975 and $6,368.

From that data, one can multiply the number of customers at test year end of 626[14] by the difference between the $8,712 of plant per customer in the test year end, as shown in the data point table for 2009, less the average and/or median plant value per customer over the seven-year time period, which results in an excess capacity calculation as shown on the following page:

[13] The $8,712 is only superseded by one-year in the data point table, which was the previous year 2008 in which the plant value per customer was $8,863.
[14] As updated in the Company's rebuttal filing.

| | Average Plant Per Customer | Median Plant Per Customer |
|---|---|---|
| Plant Value per Customer in 2009[15] | $ 8,712 | $ 8,712 |
| Average and Median Plant Value[16] | **6,975** | **6,368** |
| Difference | $ 1,737 | $ 2,344 |
| x Number of Customers in 2009 | 626 | 626 |
| Excess Capacity per Customer | $ 1,087,362 | $ 1,467,344 |

Q. Well Mr. Coley, that method of determining excess capacity also yields similar results to RUCO's surrebuttal adjustment of $1,360,580 for excess capacity doesn't it?

A. Yes, it does. Any way one rolls, slices, or dices it, it comes up as excess capacity.

Q. Briefly comment on Mr. Bourassa's inference that when the Company made the decision to construct all of the $3.1 million in plant additions the decision makers were not privy to the upcoming economic and real estate collapse, and therefore, the decision was prudent to construct the plant, which in essence has the capacity to serve all customers at build-out.

A. The issue here is not prudency. The issue is what plant is used and useful at the time of the Commission's review as supported in Ms. Jerich's testimony. The Arizona Corporation Commission ("ACC") ruled in Decision No. 64282, dated December 28, 2001, the following:

[15] As shown in RUCO's data point table.
[16] The average and median plant are based on the seven-year period of 2003 thru 2009.

**E. Plant Held For Future Use**

In order to take advantage of an Arizona Department of Transportation ("ADOT") highway improvement project, Arizona Water installed 80 feet of 12-inch steel casing across State Highway 260 in Lakeside by means of an open trench. The Company plans to utilize the new steel casing to replace an existing water line in 2003 to serve a subdivision. Arizona Water claims that the $17,912 cost of the project, compared to the approximately $40,000 cost if the open trench had not been used, reflects a prudent decision by the Company that will result in savings to customers.

We agree that the Company's decision to take advantage of the ADOT project was prudent. However, we disagree that the Company is entitled to recover the cost of placing the steel casing in this proceeding since the plant is not used and useful at this time. After the project to the subdivision is completed, the Company may seek inclusion in rate base. Until the plant is being used for provision of utility service the costs are not includable in the Company's rate base.

RUCO's excess capacity argument simply reiterates that Decision's ruling that the Commission should not allow the Company to include the plant additions in rate base that was designed to serve the number of build-out customers even if the decision makers' original decision may have been prudent. Again, this is not a prudency issue. It is a used and useful issue.

In fact, the Commission' Engineering Staff has stated in numerous reports to the ACC that on November 24, 2006, "The Company's current well source and storage capacity," which was 400,000 gallons or 530,000 less

than today's storage capacity, "are adequate to serve the present customer base and reasonable growth[17]."

On September 2, 2010, Staff Engineering compliance report for Decision No. 69404 stated the following:

> According to the Company's Annual Report, the Company's water system consists of two wells (totaling 1,240 GPM), two storage tanks (totaling 930,000 gallons) and a distribution system serving 597 customers as of December 2007. Based on these plant capacities, this system can currently serve approximately 1,800 customers.
>
> Staff concludes that the water system has sufficient capacity to meet the customer growth through 2019.

For all of these reasons stated in this testimony, $1.36 million of the $3.1 million of the plant additions is <u>not</u> used and useful and is excess capacity. These plant additions should be recorded as plant held for future use and <u>not</u> be afforded rate base treatment at this time. After the Company approaches build-out capacity, the Company may seek inclusion in rate base at that time.

Q. Can you cite a real world example of why this distinction between prudency and the used and useful principle is so critical in regulation?

A. Yes. Suppose I performed an analysis in mid 2007 that supported my decision to build a local six-bay auto mechanic shop. I acted in good faith

[17] Direct Testimony of Staff's Engineer in GWC's last rate case in Docket No. W-02500A-06-0281.

on the results from my analysis. My decision was made prudently to construct the six-bay shop based upon what was known at the time of the shop design. The economy began to collapse as the shop was being completed. As it turned out, my customer base would only support three of my six-bays, but I had invested an amount that required enough customers to support the six-bay investment. Could I simply charge my customer base more to make up the deficiency between the six versus three-bay shop? The answer is obviously no. If I did so in a competitive environment, my customer base would go down the road to another auto mechanic shop for service. GWC's ratepayers do not have that alternative because the Company is the sole provider of water service in the area. Yet, the Company wants to pass all the costs along to the roughly 650 current ratepayers for a plant designed to serve approximately 1,000 customers. That is simply wrong.

Q. In RUCO's opinion, did the Company act prudently?

A. RUCO questions whether the Company acted prudently when it built the plant.

There were some indicators already present that GWC should have considered when constructing plant for build-out capacity. For instance, the following year end customer growth table should have provided some level of caution in proceeding as shown on the next page:

| Year | Number of Customers | Number of Customer Growth | Percentage of Customer Growth |
|---|---|---|---|
| 2002 | 71 | 71 | 100% |
| 2003 | 202 | 131 | 185% |
| 2004 | 370 | 168 | 83% |
| 2005 | 479 | 109 | 29% |
| 2006 | 484 | 5 | 1% |
| 2007 | 579 | 95 | 20% |
| 2008 | 612 | 33 | 6% |
| 2009 | 626 | 14 | 2% |
| 2010 | 666 | 40 | 6% |

As can be seen in the customer growth table above, there was certainly a pattern of slowing growth in both the number and percentage of customers from 2004 thru 2006, as well as in 2008.

Q. Please sum up RUCO's testimony regarding GWC's glaring excess capacity issue.

A. RUCO's surrebuttal position is overall the same as its direct testimony position with the exception of the method used in calculating GWC's excess capacity adjustment. I will reiterate my overall direct testimony and surrebuttal position that, quite frankly, "GWC's current ratepayers should not have to pay higher rates for plant that is intended for future" customer growth. While GWC may have constructed plant to serve

anticipated growth (See RUCO Exhibit 1 on lines 20 and 21), that growth never materialized. GWC's customers should not bare the entire burden of the Company's growth miscalculations. The Company is already afforded a monopoly status and protected from any and all outside competitive forces. To further insulate the Company from risk at the total expense of its ratepayers is unfair and inappropriate. I also agree with Eagle Crest's Interveners' position that it would be an inter-generational inequity to do so.

RUCO also would strongly support the Eagle Crest's Interveners' position that the land acquisition from an affiliate should be booked on GWC's books at the lower of cost or market value as prescribed by the NARUC Guidelines of cost allocations.

RUCO believes that the Company at all times was keenly aware that it over-anticipated GWC's build-out date as shown in RUCO Exhibit 1 and wrongly constructed the plant that would be necessary to serve the projected number of customers at an erroneous projected build-out date.

The situation is both very similar and exactly opposite of the key line in the movie Field of Dreams, which was "If you build it, they[sic] will come." GWC built it, but they are not coming. At GWC's public comment meeting in Saddlebrook, Arizona on May 18, 2011, a realtor in the area provided

public comment that potential homebuyers are avoiding buying in Eagle Crest Ranch ("ECR") Subdivision simply because of the current high water rates. Another substantial rate increase will undoubtedly continue to hinder growth in ECR and keep rates high on the existing ratepayers.

RUCO is not recommending that the Company should never be afforded and receive rate base treatment of the excess capacity. As the excess capacity becomes used and useful and the Commission approves rate base treatment of the plant, the Company can earn a return on it at that point. If the Commission allows the Company to rate base this excess capacity now and earn a return on it, potential buyers in ECR will have to factor in their decisions to pay water bills that are approximately 50 percent higher than they are today. These buyers will be attracted to homes down the road where water rates are lower and reasonable. This is likely to stunt growth. The current ECR homeowners will be strapped with higher rates and a water system that was intended to serve some additional 50 percent of customers who may never come.

RUCO's excess capacity adjustment may be the key to hold rates in check and may encourage future homebuyers to purchase in ECR. Build-out would allow approximately 1,000 ratepayers to pay for a system that it is built for today and not the 650 ratepayers that exist now. Another 50

percent increase in rates now could very well destabilize an already shaky real estate market and drive people away from buying in ECR.

Q. What adjustment(s) does RUCO make to GWC's plant in service to account for the Company's excess capacity?

A. RUCO's excess capacity adjustment reduces plant in service by $1,360,580 and decreases the corresponding accumulated depreciation balance by $269,307 using the same criteria. The adjustment is shown on RUCO Surrebuttal Schedules TJC- 5, TJC-3, and TJC-2.

Adjustment No. 3 – Advances in Aid of Construction ("AIAC")

Q. Did the Company address RUCO's AIAC adjustment in its rebuttal testimony?

A. No, not directly. RUCO believes the Company carte blanche addressed RUCO's AIAC adjustment through its comments regarding the excess capacity adjustment, which was addressed in great detail on the previous pages here.

Q. Please explain RUCO's surrebuttal adjustment to the Company's AIAC balance because you mentioned earlier that it was unique as compared to RUCO's overall excess capacity adjustment for plant in service.

A. RUCO's AIAC adjustment allowed 100 percent of the AIAC balance authorized in Commission Decision No. 69404, which was $971,695. The

AIAC added since that Decision was $1,130,210. RUCO allowed 55.94 percent of the additional AIAC ($971,695 + ($1,130,210 x 55.94%) = $1,603,922) since the last rate case referenced above.

Q. How did RUCO determine that 55.94 percent of the newly added AIAC since the Company's last rate case should be allowed?

A. RUCO's AIAC calculation of the 55.94 percent is shown on RUCO's Surrebuttal Schedule TJC-6, page 2 of 2. The calculation resembles a weighted cost of capital calculation. The calculation determines each plant account additions since GWC's last rate case and divides the amount of each plant account additions to the total plant additions of $3,087,948, which results in a percentage for each plant account in the third column labeled "Percentage to Total." That percentage is then multiplied by the percentage of each plant account that RUCO deems as the used and useful factor for that particular account, which results in a weighted average for each account. The last column on Schedule TJC-6, page 2 of 2 is then summed up to obtain the 55.94 percent AIAC used and useful factor.

Q. What adjustment does RUCO make to the Company's adjusted test year AIAC balance to account for the Company's excess capacity?

A. RUCO decreases GWC's AIAC balance by $497,983, which results in an increase to the Company's rate base accordingly.

Adjustment No. 4 – Accumulated Deferred Income Taxes ("ADIT")

Q. Did the Company address RUCO's ADIT adjustment in rebuttal testimony?

A. The Company briefly addressed RUCO's ADIT adjustment and made some minor calculation corrections for calculating the tax basis of the fixed assets on a separate schedule.

Q. Does RUCO accept the Company's corrections to the tax basis of the fixed assets?

A. Yes.

Q. What adjustment does RUCO make to the Company's adjusted test year ADIT balance in surrebuttal?

A. RUCO's adjustment increases the ADIT liability balance by $50,545, which decreases rate base accordingly to account for RUCO's excess capacity adjustments and fixed asset balances.

**OPERATING INCOME ADJUSTMENTS**

Q. Please explain RUCO's overall surrebuttal operating income adjustments.

A. Overall, RUCO's surrebuttal operating income adjustments are quite similar to its direct testimony operating income adjustments, which were all explained there, with two exceptions.

Q. Please explain RUCO's two surrebuttal operating income adjustment exceptions that are different than in RUCO's direct testimony.

A. The two exceptions are RUCO's surrebuttal operating income adjustment #6. In direct testimony, that adjustment was to remove meals charged to contractual services. Here in surrebuttal the meal expenses adjustment was eliminated as being *de minimis*. In surrebuttal, a water testing expense adjustment replaced it.

Each of RUCO's operating income adjustments will be briefly explained here. A more thorough explanation for each adjustment is contained in RUCO's direct testimony. The adjustments are as follows:

Adjustment No. 1 – Depreciation Expense

Q. Please explain RUCO's adjustment to the Company's adjusted test year depreciation expense.

A. RUCO's adjustment to depreciation expense reflects the Commission's approved depreciation rates applied to RUCO's recommended plant balances due to RUCO's Original Cost Rate Base ("OCRB") adjustment #2 for excess capacity as shown on Schedule TJC-3 on line 1, column (C). RUCO's depreciation expense adjustment is shown on Schedule TJC-9 on line 19, column (B). The depreciation expense adjustment's detail is shown on Schedule TJC-10.

Q. What adjustment did RUCO make to the Company's adjusted Test Year depreciation expense?

A. RUCO's adjustment reduces the Company's adjusted test year depreciation expense by $44,136. The adjustment was driven by RUCO's rate base adjustment #2 for excess capacity and is shown on Schedule TJC-10

Adjustment No. 2 – Property Tax Expense

Q. What adjustment was necessary to the Company's adjusted test year property tax expense in RUCO's surrebuttal testimony?

A. RUCO decreased the Company's adjusted test year property tax expense by $3,570. The adjustment is due solely to the differences between the Company and RUCO's recommended level of proposed revenue. The adjustment is shown on Schedule TJC-11.

RUCO also adopted Staff's method of including the effective property tax rate into the gross revenue conversion factor ("GRCF") for consistency sake. The Company also adopted the same method in its rebuttal testimony for the same reason.

Adjustment No. 3 – Revenue and Expense Annualization

Q. What adjustment was necessary to account for the Company's updated rebuttal adjusted test year metered water revenue and purchased power expense in RUCO's surrebuttal testimony?

A. RUCO accepted the Company's newly revised rebuttal revenue and expense annualization adjustment that corrected several billing determinants. GWC thoroughly explains the problem(s) that were found in its direct Application H Schedules and corrected them in rebuttal. RUCO increased metered water revenue by $21,708 and increased purchased power expense by $577 accordingly as shown on Schedule TJC-9, Column (D). RUCO and the Company should be in agreement on this adjustment.

Adjustment No. 4 – Salaries and Wages

Q. Did the Company accept RUCO's direct adjustment to salaries and wage expense?

A. No.

Q. Does RUCO recommend the same adjustment to salaries and wage expense that it did in direct testimony?

A. Yes.

Q. How did the Company respond in rebuttal to RUCO's adjustment to salaries and wage expense?

A. The Company basically responds that "the Company's proposed $40,000 annual salary is very reasonable. If GWC were to hire someone other than Mr. Sears to perform the same duties as Mr. Sears, the annual compensation required would be much higher." In the Company's last rate case, the Commission approved Mr. Sears' annual salary of $32,000 in Decision No. 69404 at 10. RUCO continues to oppose the Company's proposed $8,000 or 25 percent increase.

Q. How does RUCO respond in its surrebuttal testimony to the Company's rebuttal comments concerning Mr. Sear's salary and wage expense?

A. All of the Company's comments regarding RUCO's adjustment to Mr. Sear's salary and wage expense does not alleviate the fact that a 25 percent wage increase in today's current economic market and downturn is simply excessive. RUCO maintains its direct testimony reasoning here in surrebuttal testimony.

Q. Please briefly explain what adjustment to salary and wage expense that RUCO also recommends in its surrebuttal testimony.

A. RUCO's adjustment decreases the Company's $40,000 adjusted Test Year salary and wage expense by $4,986. I will note that RUCO went out six-months beyond the Test Year when calculating the inflation factor to

be applied to the Test Year book result of $32,000. There were payroll taxes that were also affected. RUCO reduced the associated payroll taxes by the same inflation factor. The adjustment for payroll taxes was reduced by $372. These adjustments can be seen on Schedule TJC-9 on lines 5 and 20 in column (E). The detail of RUCO's wage and salary expense adjustment is shown on Schedule TJC-12.

Adjustment No. 5 – Contractual Services

Q. Did the Company accept RUCO's direct adjustment to contractual services expense?

A. No.

Q. Does RUCO recommend the same adjustment to contractual services expense that it did in direct testimony?

A. Yes.

Q. How did the Company respond in rebuttal to RUCO's adjustment to contractual services expense?

A. The Company basically responds in a manner that is quite similar in nature to RUCO's previous adjustment for salary and wage expense. The Company stated that "Mr. Shiner's responsibilities and time devoted to the Company increased between 2005 and 2009." RUCO's adjustment recognizes that fact and allows 38 percent of the Company's adjustment.

Q. How does RUCO respond in its surrebuttal testimony to the Company's rebuttal comments concerning Mr. Shiner's increase in contractual services expense?

A. Again, all of the Company's comments regarding RUCO's adjustment to Mr. Shiner's increase in contractual services expense does not alleviate the fact that a 25 percent wage increase in today's current economic market and downturn is simply excessive. RUCO maintains its direct testimony reasoning here in surrebuttal testimony.

Q. Please briefly explain what adjustment to contractual services expense that RUCO also recommends in its surrebuttal testimony.

A. RUCO's adjustment decreases the Company's $4,000 adjustment by $2,493. There were no payroll taxes associated with this expense since it is for outside contractual services. The adjustment is shown on Schedule TJC-9 on line 11 in column (F). The detail of RUCO's contractual services adjustment is shown on Schedule TJC-13.

Adjustment No. 6 – Water Testing Expense

Q. Please explain RUCO's adjustment that increases the Company's water testing expense by $1,568.

A. RUCO's adjustment adopts Staff's Engineering recommendation that increased GWC's adjusted Test Year water testing expense by $1,568.

The Company accepted Staff's adjustment in rebuttal as RUCO does here in surrebuttal.

Adjustment No. 6 – Income Tax Expense

Q. Have you calculated income tax expense based on RUCO's surrebuttal recommended adjusted operating income?

A. Yes. This adjustment is shown on Schedule TJC-15 for GWC.

Q. Have you included an interest synchronization calculation in your computation of income tax expense?

A. Yes. The interest synchronization calculation, which computes an interest expense deduction for income taxes, can be viewed in the schedules noted above. The interest synchronization calculation is the adjusted rate base multiplied by the weighted cost of debt.

**RATE DESIGN**

Q. Is RUCO recommending a rate design that reflects its $8,715 revenue increase, which is shown on RUCO's revenue requirement Schedule TJC-1 on line 8 in column (B) for GWC?

A. Yes.

Q. Please describe RUCO's rate design?

A. It essentially mirrors the Company's overall structure for designing rates. Both the Company and RUCO recommend shifting more of the revenue to be derived through the commodity rate(s) rather than the monthly fixed charge.

The rate design consists of three-inverted blocks of rates for the 5/8 x 3/4 inch and ¾ inch meters for all classes of customers. The remaining meter sizes consist of two-inverted blocks of rates. RUCO utilizes the same break-over points of usage that the Company proposes.

Q. What level of revenue does RUCO's surrebuttal rate design produce?

A. RUCO's rate design generates $589,439 in metered water revenues. With the Company's miscellaneous revenues of $13,738, RUCO's rate design plus the miscellaneous revenues produce RUCO's proposed annual revenue of $603,177. That is three-dollars more than reflected in Schedule TJC-1 on line 10.

Q. What amount of revenues does the Company's present rates and rebuttal proposed rates generate compared to RUCO's surrebuttal recommended rates?

A. GWC's present rates generate the following revenues for its different customer classifications as shown on the next page:

| Meter Sizes | Classification | Company Present Revenues | Company Proposed Revenues | RUCO Recommended Revenues |
|---|---|---|---|---|
| 5/8 x ¾" | Residential | $ 438,217 | $ 625,588 | $ 442,579 |
| ¾" | Residential | 88,623 | 119,680 | 95,833 |
| 1" | Residential | 6,812 | 10,803 | 6,008 |
| 1" | Commercial | 13,599 | 31,159 | 24,591 |
| 1 ½" | Commercial | 458 | 3,200 | 2,322 |
| 2" | Commercial | 14,440 | 26,887 | 18,107 |
| 5/8 x ¾" | Construction | 3,456 | 0 | 0 |
| **Total Revenues** | | $ 565,605 | $ 817,317 * | $ 589,440 * |

* With Revenue Annualization

These amounts are shown in RUCO's Rate Design Schedules TJC RD-1 thru TJC RD-7 and on the Company's Schedule H-1 in the "Total Revenues at Present Rates" column.

Q. What is the impact of RUCO's recommended rates on an average bill for a 5/8 x ¾ inch and ¾ inch metered residential customer?

A. The 5/8 x ¾ inch metered customer represents 85.7 percent of the Company's total customers. The present monthly bill for a 5/8 x ¾ inch residential customer using an average of 5,520 gallons is $66.98. RUCO's recommended monthly bill for a 5/8 x ¾ inch residential customer using an average of 5,520 gallons is $66.84, a decrease of $0.14 or two-tenths of one percent less than the present rates.

The present monthly bill for a ¾ inch residential customer using an average 6,028 gallons is $91.08. RUCO's recommended monthly bill for a ¾ inch residential customer using an average of 6,028 gallons is $89.39, a decrease of $1.69 or 1.9 percent less than the present rates.

The customer classifications' average and median rates are shown on the respective Schedules TJC RD-5 for the residential and commercial classifications. The same information is provided for the construction/standpipe customer classification on Schedule TJC RD-1.

Q. Why are some customers receiving rate decreases as noted above because RUCO is recommending a rate increase of $8,715?

A. The reason why some residential customers are receiving small rate decreases is due to RUCO's rate design structure that moves more revenues into the commodity charges and less in the monthly minimum charge. However, as soon as a customer exceeds the average gallon consumption point, the customer will see an increase in their bill under RUCO's recommended rate design over the Company's present rate design because RUCO's commodity rates are higher than the Company's present commodity rates. Thus, a customer is awarded in lower monthly bills if he/she practices conservation whenever more revenues are moved to the commodity charges versus the monthly minimum charge. But

again, once the customer exceeds the average consumption point, the reverse is true.

**OTHER ISSUES**

Q. What other issue(s) would RUCO want to address?

A. One of the two other issues is RUCO's proposed HUF, which was fully discussed on pages 6 thru 8.

The second issue was RUCO's proposal for the Commission to grant GWC a deferred accounting order that would allow the Company to recover any foregone depreciation expense from RUCO's excess capacity adjustment in a future rate case. This was more fully discussed earlier on page 8.

Q. Does your silence on any issue constitute RUCO's acceptance.

A. No.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

RUCO EXHIBIT 1

ORIGINAL

**BEFORE THE ARIZONA CORPORATION COMMISSION**

MIKE GLEASON
Chairman

WILLIAM A. MUNDELL
Commissioner

JEFF HATCH-MILLER
Commissioner

KRISTIN K. MAYES
Commissioner

GARY PIERCE
Commissioner

Arizona Corporation Commission
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DOCKET CONTROL

IN THE MATTER OF THE APPLICATION OF GOODMAN WATER COMPANY FOR REVIEW AND APPROVAL OF PROPOSED HOOK-UP FEE TARIFF

DOCKET NO. W-02500A-07-0281

APPLICATION

In compliance with Decision No. 69404, dated April 16, 2007, Goodman Water Company ("Goodman") submits for Staff's review this proposed Hook-Up Fee Tariff. The proposed Hook-Up Fee Tariff and related hook-up fees would be applicable to new customer connections to Goodman's system. The capital expenditures related to the proposed hook-up fees pertain to Goodman's construction requirements for the 2008-2011 time period. The anticipated new customer growth during this period is 724 new customer connections. The off-site facilities in question include a well #3 and related equipment and engineering. The proportion of anticipated construction costs proposed to be funded by the proposed hook-up fees is 40%.

Attached to this Application as Exhibit "A" is a schedule setting forth the assumptions and estimated future capital expenditures upon which the proposed hook-up fees are based. Exhibit

RUCO EXHIBIT 2

Goodman Water Company
Utility Plant Per Customer



| Line No. | Acct. No. | Description | 2002 Original Cost | 2002 Per Customer Cost Per Average Year Customer Count | 2002 Per Customer Cost Per Year End Customer Count | 2003 Original Cost | 2003 Per Customer Cost Per Average Year Customer Count | 2003 Per Customer Cost Per Year End Customer Count | 2004 Original Cost | 2004 Per Customer Cost Per Average Year Customer Count | 2004 Per Customer Cost Per Year End Customer Count |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 301 | Organization | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ |
| 2 | 302 | Franchises | - | - | - | - | - | - | - | - | |
| 3 | 303 | Land & Land Rights | - | - | - | - | - | - | - | - | |
| 4 | 304 | Structures and Improvements | - | - | - | - | - | - | 1,343 | 5 | 4 |
| 5 | 307 | Wells and Springs | - | - | - | 233,767 | 1,527 | 1,157 | 233,767 | 786 | 632 |
| 6 | 311 | Pumping Equipment | - | - | - | 542,915 | 3,547 | 2,688 | 582,420 | 1,959 | 1,574 |
| 7 | 320 | Water Treatment Equipment | - | - | - | - | - | - | 2,161 | 7 | 6 |
| 8 | 330 | Distribution Reservoirs & Standpipes | - | - | - | 251,477 | 1,643 | 1,245 | 251,476 | 846 | 680 |
| 9 | 331 | Transmission and Distribution Mains | - | - | - | 402,268 | 2,628 | 1,991 | 675,939 | 2,274 | 1,827 |
| 10 | 333 | Services | 94,596 | 4,487 | 1,332 | 160,177 | 1,046 | 793 | 212,697 | 716 | 575 |
| 11 | 334 | Meter and Meter Installations | 7,757 | 368 | 109 | 23,735 | 155 | 118 | 40,660 | 137 | 110 |
| 12 | 335 | Hydrants | - | - | - | 24,975 | 163 | 124 | 43,565 | 147 | 118 |
| 13 | 336 | Backflow Prevention Devices | - | - | - | - | - | - | - | - | |
| 14 | 339 | Other Plant and Misc. Equipment | - | - | - | - | - | - | - | - | |
| 15 | 340 | Office Furniture and Equipment | - | - | - | - | - | - | - | - | |
| 16 | 341 | Transportation Equipment | - | - | - | - | - | - | - | - | |
| 17 | 343 | Tools, Shop and Garage Equipment | - | - | - | - | - | - | - | - | |
| 18 | 344 | Laboratory Equipment | - | - | - | - | - | - | - | - | |
| 19 | 345 | Power Operated Equipment | - | - | - | - | - | - | - | - | |
| 20 | 346 | Communication Equipment | - | - | - | - | - | - | - | - | |
| 21 | 347 | Miscellaneous Equipment | - | - | - | - | - | - | - | - | |
| 22 | 348 | Other Tangible Plant | - | - | - | - | - | - | - | - | |
| 23 | | **Totals** | $ 102,353 | $ 4,855 | $ 1,442 | $ 1,639,314 | $ 10,709 | $ 8,115 | $ 2,044,028 | $ 6,876 | $ 5,524 |
| 24 | | Average and Year End Number of Customers | | 21 | 71 | | 153 | 202 | | 297 | 370 |
| 25 | | *$ increase for* Average and Year End Number of Customers from Previous Yr. | | | | | 5,854 | 6,674 | | (3,832) | (2,591) |
| 26 | | % Increase for Average and Year End Number of Customers from Previous Yr. | | | | | 626% | 185% | | 94% | 83% |
| 27 | | Increase in Number of Year End Customers thru 2012 | | | 71 | | | 131 | | | 168 |

Goodman Water Company
Utility Plant Per Customer



| Line No. | Acct. No. | Description | 2005 Original Cost | 2005 Per Customer Cost Per Average Year Customer Count | 2005 Per Customer Cost Per Year End Customer Count | 2006 Original Cost | 2006 Per Customer Cost Per Average Year Customer Count | 2006 Per Customer Cost Per Year End Customer Count | 2007 Original Cost | 2007 Per Customer Cost Per Average Year Customer Count | 2007 Per Customer Cost Per Year End Customer Count |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 301 | Organization | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 2 | 302 | Franchises | 106,028 | 236 | 221 | 110,948 | 230 | 229 | 117,487 | 214 | 203 |
| 3 | 303 | Land & Land Rights | - | - | - | - | - | - | - | - | - |
| 4 | 304 | Structures and Improvements | 11,064 | 25 | 23 | 11,064 | 23 | 23 | 11,064 | 20 | 19 |
| 5 | 307 | Wells and Springs | 386,591 | 862 | 807 | 386,591 | 802 | 799 | 386,591 | 704 | 668 |
| 6 | 311 | Pumping Equipment | 686,993 | 1,532 | 1,434 | 686,993 | 1,426 | 1,419 | 689,955 | 1,256 | 1,192 |
| 7 | 320 | Water Treatment Equipment | 11,054 | 25 | 23 | 11,319 | 23 | 23 | 15,947 | 29 | 28 |
| 8 | 330 | Distribution Reservoirs & Standpipes | 294,460 | 657 | 615 | 294,460 | 611 | 608 | 366,810 | 668 | 634 |
| 9 | 331 | Transmission and Distribution Mains | 751,451 | 1,676 | 1,569 | 751,451 | 1,560 | 1,553 | 1,436,546 | 2,615 | 2,481 |
| 10 | 333 | Services | 146,540 | 327 | 306 | 146,543 | 304 | 303 | 289,895 | 528 | 501 |
| 11 | 334 | Meter and Meter Installations | 67,767 | 151 | 141 | 68,037 | 141 | 141 | 79,816 | 145 | 138 |
| 12 | 335 | Hydrants | 83,174 | 186 | 174 | 83,180 | 173 | 172 | 126,384 | 230 | 218 |
| 13 | 336 | Backflow Prevention Devices | - | - | - | - | - | - | - | - | - |
| 14 | 339 | Other Plant and Misc. Equipment | 152,473 | 340 | 318 | 165,718 | 344 | 342 | 166,477 | 303 | 288 |
| 15 | 340 | Office Furniture and Equipment | - | - | - | - | - | - | - | - | - |
| 16 | 341 | Transportation Equipment | - | - | - | - | - | - | - | - | - |
| 17 | 343 | Tools, Shop and Garage Equipment | - | - | - | - | - | - | - | - | - |
| 18 | 344 | Laboratory Equipment | - | - | - | - | - | - | - | - | - |
| 19 | 345 | Power Operated Equipment | - | - | - | - | - | - | - | - | - |
| 20 | 346 | Communication Equipment | - | - | - | - | - | - | - | - | - |
| 21 | 347 | Miscellaneous Equipment | - | - | - | - | - | - | - | - | - |
| 22 | 348 | Other Tangible Plant | - | - | - | - | - | - | - | - | - |
| 23 | | **Totals** | $ 2,697,594 | $ 6,017 | $ 5,632 | $ 2,716,303 | $ 5,637 | $ 5,612 | $ 3,686,972 | $ 6,713 | $ 6,368 |
| 24 | | Average and Year End Number of Customers | | 448 | 479 | | 482 | 484 | | 549 | 579 |
| 25 | | $ Increase for Average and Year End Number of Customers from Previous Yr. | | (860) | 107 | | (380) | (20) | | 1,075 | 756 |
| 26 | | % Increase for Average and Year End Number of Customers from Previous Yr. | | 51% | 29% | | 7% | 1% | | 14% | 20% |
| 27 | | Increase in Number of Year End Customers thru 2012 | | | 109 | | | 5 | | | 95 |

Goodman Water Company
Utility Plant Per Customer



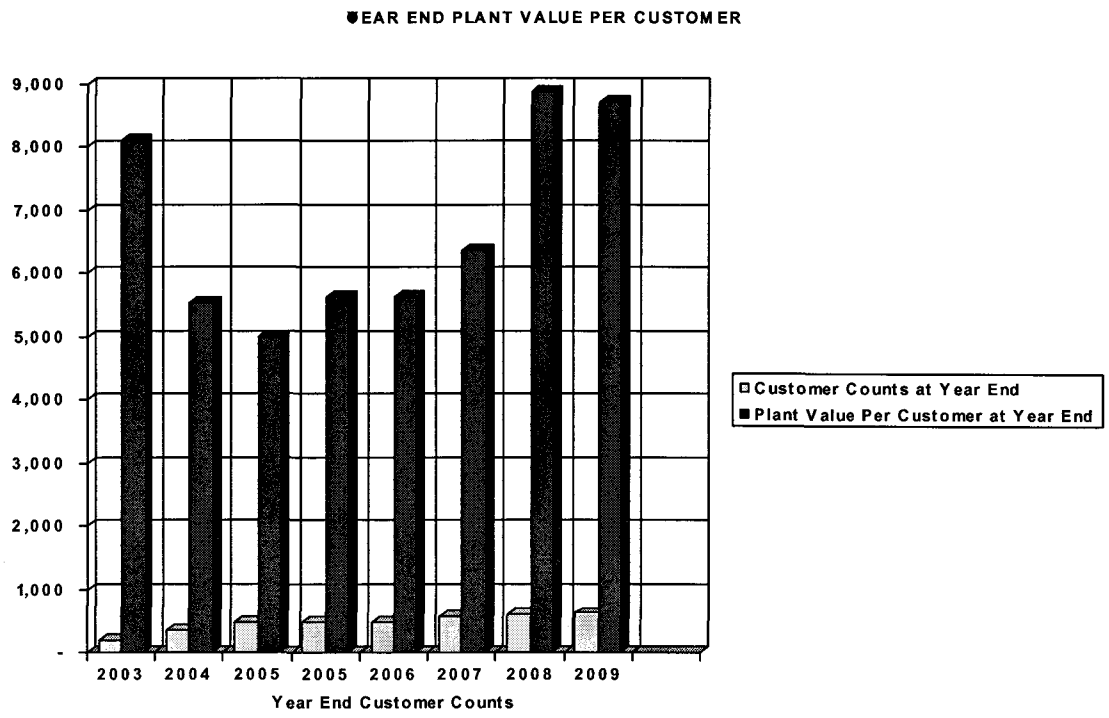
| Line No. | Acct. No. | Description | 2008 Original Cost | 2008 Per Customer Cost Per Average Year Customer Count | 2008 Per Customer Cost Per Year End Customer Count | 2009 Original Cost | 2009 Per Customer Cost Per Average Year Customer Count | 2009 Per Customer Cost Per Year End Customer Count | 2010 Original Cost | 2010 Per Customer Cost Per Average Year Customer Count | 2010 Per Customer Cost Per Year End Customer Count |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 301 | Organization | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 2 | 302 | Franchises | 127,103 | 210 | 208 | 127,103 | 203 | 203 | 127,103 | 196 | 191 |
| 3 | 303 | Land & Land Rights | 494,159 | 817 | 807 | 494,159 | 791 | 789 | 494,159 | 762 | 742 |
| 4 | 304 | Structures and Improvements | 182,570 | 302 | 298 | 182,570 | 292 | 292 | 182,570 | 281 | 274 |
| 5 | 307 | Wells and Springs | 386,591 | 639 | 632 | 386,591 | 619 | 618 | 386,591 | 596 | 580 |
| 6 | 311 | Pumping Equipment | 965,496 | 1,595 | 1,578 | 968,652 | 1,550 | 1,547 | 968,652 | 1,493 | 1,454 |
| 7 | 320 | Water Treatment Equipment | 15,947 | 26 | 26 | 15,947 | 26 | 25 | 15,947 | 25 | 24 |
| 8 | 330 | Distribution Reservoirs & Standpipes | 836,890 | 1,383 | 1,367 | 836,890 | 1,339 | 1,337 | 836,890 | 1,290 | 1,257 |
| 9 | 331 | Transmission and Distribution Mains | 1,611,302 | 2,663 | 2,633 | 1,611,321 | 2,579 | 2,574 | 1,611,321 | 2,484 | 2,419 |
| 10 | 333 | Services | 386,947 | 639 | 632 | 386,947 | 619 | 618 | 386,947 | 596 | 581 |
| 11 | 334 | Meter and Meter Installations | 89,115 | 147 | 146 | 94,263 | 151 | 151 | 99,763 | 154 | 150 |
| 12 | 335 | Hydrants | 161,737 | 267 | 264 | 161,737 | 259 | 258 | 161,737 | 249 | 243 |
| 13 | 336 | Backflow Prevention Devices | - | - | - | - | - | - | - | - | - |
| 14 | 339 | Other Plant and Misc. Equipment | 166,477 | 275 | 272 | 187,582 | 300 | 300 | 187,582 | 289 | 282 |
| 15 | 340 | Office Furniture and Equipment | - | - | - | - | - | - | - | - | - |
| 16 | 341 | Transportation Equipment | - | - | - | - | - | - | - | - | - |
| 17 | 343 | Tools, Shop and Garage Equipment | - | - | - | - | - | - | - | - | - |
| 18 | 344 | Laboratory Equipment | - | - | - | - | - | - | - | - | - |
| 19 | 345 | Power Operated Equipment | - | - | - | - | - | - | - | - | - |
| 20 | 346 | Communication Equipment | - | - | - | - | - | - | - | - | - |
| 21 | 347 | Miscellaneous Equipment | - | - | - | - | - | - | - | - | - |
| 22 | 348 | Other Tangible Plant | - | - | - | - | - | - | - | - | - |
| 23 | | **Totals** | $ 5,424,334 | $ 8,963 | $ 8,863 | $ 5,453,761 | $ 8,728 | $ 8,712 | $ 5,459,261 | $ 8,415 | $ 8,197 |
| 24 | | Average and Year End Number of Customers | | 605 | 612 | | 625 | 626 | | 649 | 666 |
| 25 | | $ Increase for Average and Year End Number of Customers from Previous Yr. | | 2,251 | 2,495 | | (235) | (151) | | (313) | (515) |
| 26 | | % Increase for Average and Year End Number of Customers from Previous Yr. | | 10% | 6% | | 3% | 2% | | 4% | 6% |
| 27 | | Increase in Number of Year End Customers thru 2012 | | | 33 | | | 14 | | | 40 |

Goodman Water Company
Utility Plant Per Customer



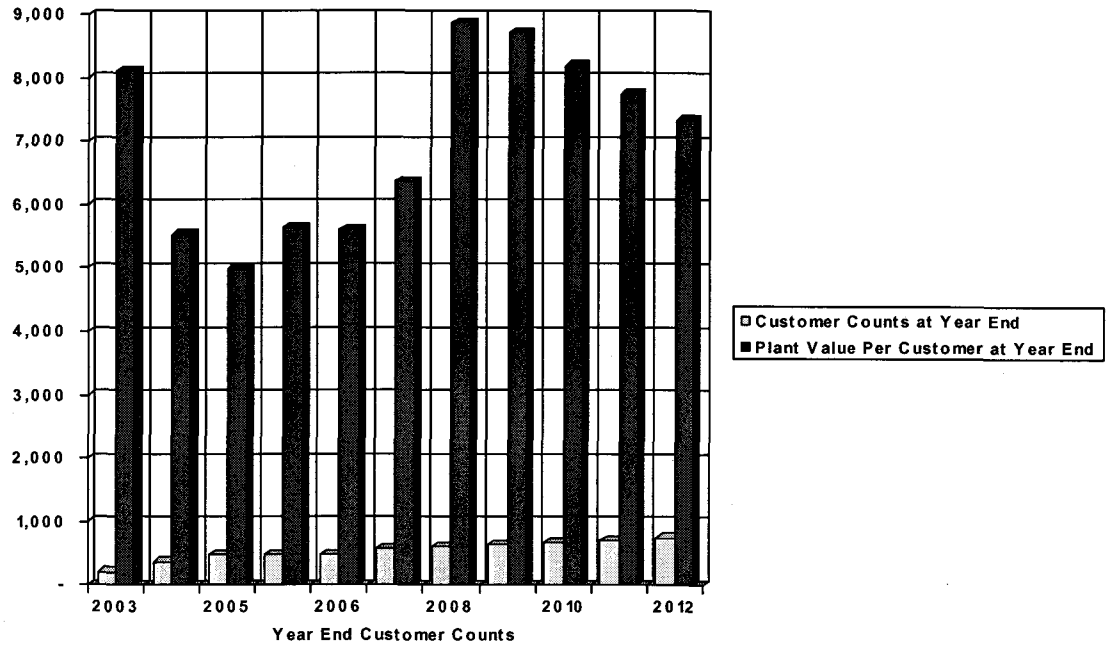
| Line No. | Acct. No. | Description | Projected 2011 Original Cost | Projected 2011 Per Customer Cost Per Average Year Customer Count | Projected 2011 Per Customer Cost Per Year End Customer Count | Projected 2011 Original Cost | Projected 2012 Per Customer Cost Per Average Year Customer Count | Projected 2012 Per Customer Cost Per Year End Customer Count |
|---|---|---|---|---|---|---|---|---|
| 1 | 301 | Organization | $ - | $ - | $ - | $ - | $ - | $ - |
| 2 | 302 | Franchises | 127,103 | 185 | 180 | 127,103 | 175 | 170 |
| 3 | 303 | Land & Land Rights | 494,159 | 719 | 700 | 494,159 | 679 | 662 |
| 4 | 304 | Structures and Improvements | 182,570 | 266 | 259 | 182,570 | 251 | 245 |
| 5 | 307 | Wells and Springs | 386,591 | 562 | 548 | 386,591 | 531 | 518 |
| 6 | 311 | Pumping Equipment | 968,652 | 1,409 | 1,372 | 968,652 | 1,331 | 1,299 |
| 7 | 320 | Water Treatment Equipment | 15,947 | 23 | 23 | 15,947 | 22 | 21 |
| 8 | 330 | Distribution Reservoirs & Standpipes | 836,890 | 1,217 | 1,185 | 836,890 | 1,150 | 1,122 |
| 9 | 331 | Transmission and Distribution Mains | 1,611,321 | 2,343 | 2,282 | 1,611,321 | 2,215 | 2,160 |
| 10 | 333 | Services | 386,947 | 563 | 548 | 386,947 | 532 | 519 |
| 11 | 334 | Meter and Meter Installations | 105,263 | 153 | 149 | 110,763 | 152 | 148 |
| 12 | 335 | Hydrants | 161,737 | 235 | 229 | 161,737 | 222 | 217 |
| 13 | 336 | Backflow Prevention Devices | - | - | - | - | - | - |
| 14 | 339 | Other Plant and Misc. Equipment | 187,582 | 273 | 266 | 187,582 | 258 | 251 |
| 15 | 340 | Office Furniture and Equipment | - | - | - | - | - | - |
| 16 | 341 | Transportation Equipment | - | - | - | - | - | - |
| 17 | 343 | Tools, Shop and Garage Equipment | - | - | - | - | - | - |
| 18 | 344 | Laboratory Equipment | - | - | - | - | - | - |
| 19 | 345 | Power Operated Equipment | - | - | - | - | - | - |
| 20 | 346 | Communication Equipment | - | - | - | - | - | - |
| 21 | 347 | Miscellaneous Equipment | - | - | - | - | - | - |
| 22 | 348 | Other Tangible Plant | - | - | - | - | - | - |
| 23 | | **Totals** | $5,464,761 | $ 7,947 | $ 7,741 | $5,470,261 | $ 7,518 | $ 7,334 |
| 24 | | Average and Year End Number of Customers | | 688 | 706 | | 728 | 746 |
| 25 | | $ Increase for Average and Year End Number of Customers from Previous Yr. | | (468) | (456) | | (429) | (407) |
| 26 | | % Increase for Average and Year End Number of Customers from Previous Yr. | | 6% | 6% | | 6% | 6% |
| 27 | | Increase in Number of Year End Customers thru 2012 | | | 40 | | | 40 |

RUCO EXHIBIT 3


YEAR END PLANT VALUE PER CUSTOMER
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
-
2003
2004
2005
2005
2006
2007
2008
2009
Year End Customer Counts
Customer Counts at Year End
Plant Value Per Customer at Year End

RUCO EXHIBIT 4

YEAR END PLANT VALUE PER CUSTOMER



GOODMAN WATER COMPANY –
TJC SURREBUTTAL RESIDENTIAL RATE DESIGN SCHEDULES

DOCKET NO. W-02500A-10-0382

GOODMAN WATER COMPANY - SURREBUTTAL RESIDENTIAL RATE DESIGN
TEST YEAR ENDED DECEMBER 31, 2009
SUMMARY OF PRESENT, COMPANY PROPOSED & RUCO RECOMMENDED RATES

DOCKET NO. W-02500A-10-0382
SCHEDULE TJC RD-1

## RATE SUMMARY

**Present Rates**

| A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Meter Size | Number of Bills | Total Gallons Consumed (Midrange) | Minimum Gallons | Monthly Minimum Charge | Metered Minimum Revenue B X E | Tier One Gallons Subject to Comodity Charge (Midrange) | Tier One Commodity Revenue per 1,000 Gal. | Tier Two Gallons Subject to Comodity Charge (Midrange) | Tier Two Commodity Revenue per 1,000 Gal. | Tier Three Gallons Subject to Comodity Charge (Midrange) | Tier Three Commodity Revenue per 1,000 Gal. | Total Metered Revenue F + H + J + L |
| 5/8 - INCH | 6,373 | 386,941,940 | 0 | $42.20 | $268,941 | 21,253,000 | $83,949 | 10,466,540 | $61,857 | 3,457,000 | $24,579 | $439,326 |
| 3/4 - INCH | 1,032 | 68,421,848 | 0 | 63.30 | 65,326 | 3,330,500 | 13,155 | 1,988,168 | 11,750 | 901,500 | 6,410 | 96,641 |
| 1 - INCH | 30 | 3,630,000 | 0 | 105.50 | 3,165 | 314,000 | 1,856 | 109,000 | 775 | 0 | 0 | 5,796 |
| 1 1/2 - INCH | 0 | 0 | 0 | 211.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 - INCH | 0 | 0 | 0 | 339.68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 - INCH | 0 | 0 | 0 | 675.20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 - INCH | 0 | 0 | 0 | 1,055.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 - INCH | 0 | 0 | 0 | 2,110.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 - INCH | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 - INCH | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7,435 | 458,993,788 | 0 | | $337,431 | 24,897,500 | $98,961 | 12,563,708 | $74,382 | 4,358,500 | $30,989 | $541,763 |

**Company Proposed Rates**

| A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Meter Size | Number of Bills | Total Gallons Consumed (Midrange) | Minimum Gallons | Monthly Minimum Charge | Metered Minimum Revenue B X E | Tier One Gallons Subject to Comodity Charge (Midrange) | Tier One Commodity Revenue per 1,000 Gal. | Tier Two Gallons Subject to Comodity Charge (Midrange) | Tier Two Commodity Revenue per 1,000 Gal. | Tier Three Gallons Subject to Comodity Charge (Midrange) | Tier Three Commodity Revenue per 1,000 Gal. | Total Metered Revenue F + H + J + L |
| 5/8 - INCH | 6,373 | 386,941,940 | 0 | $52.20 | $332,680 | 21,253,000 | $133,490 | 10,466,540 | $117,956 | 3,457,000 | $46,344 | $630,469 |
| 3/4 - INCH | 1,032 | 68,421,848 | 0 | 78.30 | 80,808 | 3,330,500 | 20,919 | 1,988,168 | 22,406 | 901,500 | 12,085 | 136,218 |
| 1 - INCH | 30 | 3,630,000 | 0 | 130.50 | 3,915 | 314,000 | 3,539 | 109,000 | 1,461 | 0 | 0 | 8,915 |
| 1 1/2 - INCH | 0 | 0 | 0 | 261.01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 - INCH | 0 | 0 | 0 | 417.61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 - INCH | 0 | 0 | 0 | 835.22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 - INCH | 0 | 0 | 0 | 1,305.04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 - INCH | 0 | 0 | 0 | 2,610.07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 - INCH | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 - INCH | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7,435 | 458,993,788 | 0 | | $417,402 | 24,897,500 | $157,948 | 12,563,708 | $141,823 | 4,358,500 | $58,429 | $775,603 |

**RUCO Recommended Rates**

| A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Meter Size | Number of Bills | Total Gallons Consumed (Midrange) | Minimum Gallons | Monthly Minimum Charge | Metered Minimum Revenue B X E | Tier One Gallons Subject to Comodity Charge (Midrange) | Tier One Commodity Revenue per 1,000 Gal. | Tier Two Gallons Subject to Comodity Charge (Midrange) | Tier Two Commodity Revenue per 1,000 Gal. | Tier Three Gallons Subject to Comodity Charge (Midrange) | Tier Three Commodity Revenue per 1,000 Gal. | Total Metered Revenue F + H + J + L |
| 5/8 - INCH | 6,373 | 386,941,940 | 0 | $38.00 | $242,174 | 21,253,000 | $96,701 | 10,466,540 | $73,266 | 3,457,000 | $30,439 | $442,579 |
| 3/4 - INCH | 1,032 | 68,421,848 | 0 | 57.00 | 58,824 | 3,330,500 | 15,154 | 1,988,168 | 13,917 | 901,500 | 7,938 | 95,833 |
| 1 - INCH | 30 | 3,630,000 | 0 | 95.00 | 2,850 | 314,000 | 2,198 | 109,000 | 960 | 0 | 0 | 6,008 |
| 1 1/2 - INCH | 0 | 0 | 0 | 190.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 - INCH | 0 | 0 | 0 | 304.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 - INCH | 0 | 0 | 0 | 570.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 - INCH | 0 | 0 | 0 | 950.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 - INCH | 0 | 0 | 0 | 1,900.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 - INCH | 0 | 0 | 0 | 3,800.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 - INCH | 0 | 0 | 0 | 7,600.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7,435 | 458,993,788 | 0 | | $303,848 | 24,897,500 | $114,053 | 12,563,708 | $88,143 | 4,358,500 | $38,376 | $544,420 |

GOODMAN WATER COMPANY - SURREBUTTAL RESIDENTIAL RATE DESIGN
TEST YEAR ENDED DECEMBER 31, 2009
REVENUE COMPARISON

DOCKET NO. W-02500A-10-0382
SCHEDULE TJC RD-2

| LINE NO. | METER SIZE | PERESENT RATES MONTHLY MINIMUM | PERESENT RATES COMMODITY CHARGE | PERESENT RATES TOTAL REVENUE | COMPANY PROPOSED RATES MONTHLY MINIMUM | COMPANY PROPOSED RATES COMMODITY CHARGE | COMPANY PROPOSED RATES TOTAL REVENUE | RUCO RECOMMENDED RATES MONTHLY MINIMUM | RUCO RECOMMENDED RATES COMMODITY CHARGE | RUCO RECOMMENDED RATES TOTAL REVENUE |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/8 - INCH | $ 268,941 | $ 170,386 | $ 439,326 | $ 332,680 | $ 297,790 | $ 630,469 | $ 242,174 | $ 200,405 | $ 442,579 |
| 2 | 3/4 - INCH | 65,326 | 31,315 | 96,641 | 80,808 | 55,410 | 136,218 | 58,824 | 37,009 | 95,833 |
| 3 | 1 - INCH | 3,165 | 2,631 | 5,796 | 3,915 | 5,000 | 8,915 | 2,850 | 3,158 | 6,008 |
| 4 | 1 1/2 - INCH | - | - | - | - | - | - | - | - | - |
| 5 | 2 - INCH | - | - | - | - | - | - | - | - | - |
| 6 | 3 - INCH | - | - | - | - | - | - | - | - | - |
| 7 | 4 - INCH | - | - | - | - | - | - | - | - | - |
| 8 | 6 - INCH | - | - | - | - | - | - | - | - | - |
| 9 | 8 - INCH | - | - | - | - | - | - | - | - | - |
| 10 | 10 - INCH | - | - | - | - | - | - | - | - | - |
| 11 | **TOTALS** | **$ 337,431** | **$ 204,332** | **$ 541,763** | **$ 417,402** | **$ 358,200** | **$ 775,603** | **$ 303,848** | **$ 240,572** | **$ 544,420** |
| 12 | **PERCENTAGE** | **62.28%** | **37.72%** | **100.00%** | **53.82%** | **46.18%** | **100.00%** | **55.81%** | **44.19%** | **100.00%** |

**GOODMAN WATER COMPANY - SURREBUTTAL RESIDENTIAL RATE DESIGN**
**TEST YEAR ENDED DECEMBER 31, 2009**
**RECOMMENDED RATES**

**DOCKET NO. W-02500A-10-0382**
**SCHEDULE TJC RD-3**

| LINE NO. | DESCRIPTION | | | | | PRESENT RATES | COMPANY PROPOSED | RUCO PROPOSED |
|---|---|---|---|---|---|---|---|---|
| 1 | **RECOMMENDED MONTHLY MINIMUM USAGE CHARGE:** | | | | | | | |
| 2 | | | | | | | | |
| 3 | (RESIDENTIAL, COMMERCIAL AND MISC. CUSTOMERS) | | | | | | | |
| 4 | 5/8 - INCH | | | | | $42.20 | $52.20 | $38.00 |
| 5 | 3/4 - INCH | | | | | 63.30 | 78.30 | 57.00 |
| 6 | 1 - INCH | | | | | 105.50 | 130.50 | 95.00 |
| 7 | 1 1/2 - INCH | | | | | 211.50 | 261.01 | 190.00 |
| 8 | 2 - INCH | | | | | 339.68 | 417.61 | 304.00 |
| 9 | 3 - INCH | | | | | 675.20 | 835.22 | 570.00 |
| 10 | 4 - INCH | | | | | 1,055.00 | 1,305.04 | 950.00 |
| 11 | 6 - INCH | | | | | 2,110.00 | 2,610.07 | 1,900.00 |
| 12 | 8 - INCH | | | | | 0.00 | 0.00 | 3,800.00 |
| 13 | 10 - INCH | | | | | 0.00 | 0.00 | 7,600.00 |
| 14 | | | | | | | | |
| 15 | **GALLONS INCLUDED IN MONTHLY MINIMUM USAGE CHARGE:** | | | | | | | |
| 16 | | | | | | | | |
| 17 | RESIDENTIAL, COMMERCIAL AND MISC. CUSTOMERS | | | | | 0 | 0 | 0 |
| 18 | | | | | | | | |
| 19 | **RECOMMENDED COMMODITY RATES BY METER SIZE** | | | | | | | |
| 20 | | | | | | | | |
| 21 | 5/8 - INCH | | | | | | | |
| 22 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 4,000 | GALLONS: | $ 3.95 | $ 6.28 | $ 4.55 |
| 23 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | 4,001 | TO | 9,000 | GALLONS: | $ 5.91 | $ 11.27 | $ 7.00 |
| 24 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 9,000 | GALLONS: | $ 7.11 | $ 13.41 | $ 8.80 |
| 25 | | | | | | | | |
| 26 | 3/4 - INCH | | | | | | | |
| 27 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 4,000 | GALLONS: | $ 3.95 | $ 6.28 | $ 4.55 |
| 28 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 9,000 | GALLONS: | $ 5.91 | $ 11.27 | $ 7.00 |
| 29 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 9,000 | GALLONS: | $ 7.11 | $ 13.41 | $ 8.80 |
| 30 | | | | | | | | |
| 31 | 1 - INCH | | | | | | | |
| 32 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 22,500 | GALLONS: | $ 5.91 | $ 11.27 | $ 7.00 |
| 33 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ 7.11 | $ 13.41 | $ 8.80 |
| 34 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ - | $ 13.41 | $ - |
| 35 | | | | | | | | |
| 36 | 1 1/2 - INCH | | | | | | | |
| 37 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 34,000 | GALLONS: | $ 5.91 | $ 11.27 | $ 7.00 |
| 38 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ 7.11 | $ 13.41 | $ 8.80 |
| 39 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ - | $ - | $ - |
| 40 | | | | | | | | |
| 41 | 2 - INCH | | | | | | | |
| 42 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 45,000 | GALLONS: | $ 5.91 | $ 11.27 | $ 7.00 |
| 43 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | 45,001 | TO | 999,999,999,999,999,000 | GALLONS: | $ 7.11 | $ 13.41 | $ 8.80 |
| 44 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ - | $ - | $ - |
| 45 | | | | | | | | |
| 46 | 3 - INCH | | | | | | | |
| 47 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 68,000 | GALLONS: | $ 5.91 | $ 11.27 | $ 7.00 |
| 48 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | 68,001 | TO | 999,999,999,999,999,000 | GALLONS: | $ 7.11 | $ 13.41 | $ 8.80 |
| 49 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ - | $ - | $ - |
| 50 | | | | | | | | |
| 51 | 4 - INCH | | | | | | | |
| 52 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 90,000 | GALLONS: | $ 5.91 | $ 11.27 | $ 7.00 |
| 53 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | 90,001 | TO | 999,999,999,999,999,000 | GALLONS: | $ 7.11 | $ 13.41 | $ 8.80 |
| 54 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ - | $ - | $ - |
| 55 | | | | | | | | |
| 56 | 6 - INCH | | | | | | | |
| 57 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 135,000 | GALLONS: | $ 5.91 | $ 11.27 | $ 7.00 |
| 58 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | 135,001 | TO | 999,999,999,999,999,000 | GALLONS: | $ 7.11 | $ 13.41 | $ 8.80 |
| 59 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ - | $ - | $ - |
| 60 | | | | | | | | |
| 61 | 8 - INCH | | | | | | | |
| 62 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 0 | GALLONS: | $ 5.91 | $ 10.92 | $ 7.00 |
| 63 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ 7.11 | $ 13.13 | $ 8.80 |
| 64 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ - | $ - | $ - |
| 65 | | | | | | | | |
| 66 | 10 - INCH | | | | | | | |
| 67 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 0 | GALLONS: | $ 5.91 | $ 10.92 | $ 7.00 |
| 68 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ 7.11 | $ 13.13 | $ 8.80 |
| 69 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | $ - | $ - | $ - |

**GOODMAN WATER COMPANY - SURREBUTTAL RESIDENTIAL RATE DESIGN**
**TEST YEAR ENDED DECEMBER 31, 2009**
**MONTHLY MINIMUM CHARGES**

**DOCKET NO. W-02500A-10-0382**
**SCHEDULE TJC RD-4**

| LINE NO. | METER SIZE | (A) COMPANY PRESENT RATES | (B) COMPANY PROPOSED RATES | (C) COMPANY DOLLAR INCREASE | (D) COMPANY PERCENT. INCREASE | (E) RUCO RECOMMENDED RATES | (F) RUCO DOLLAR INCREASE | (G) RUCO PERCENT. INCREASE |
|---|---|---|---|---|---|---|---|---|
| 1 | 5/8 - INCH | $ 42.20 | $ 52.20 | $ 10.00 | 23.70% | $ 38.00 | $ (4.20) | -9.95% |
| 2 | 3/4 - INCH | 63.30 | 78.30 | 15.00 | 23.70% | 57.00 | (6.30) | -9.95% |
| 3 | 1 - INCH | 105.50 | 130.50 | 25.00 | 23.70% | 95.00 | (10.50) | -9.95% |
| 4 | 1 1/2 - INCH | 211.50 | 261.01 | 49.51 | 23.41% | 190.00 | (21.50) | -10.17% |
| 5 | 2 - INCH | 339.68 | 417.61 | 77.93 | 22.94% | 304.00 | (35.68) | -10.50% |
| 6 | 3 - INCH | 675.20 | 835.22 | 160.02 | 23.70% | 570.00 | (105.20) | -15.58% |
| 7 | 4 - INCH | 1,055.00 | 1,305.04 | 250.04 | 23.70% | 950.00 | (105.00) | -9.95% |
| 8 | 6 - INCH | 2,110.00 | 2,610.07 | 500.07 | 23.70% | 1,900.00 | (210.00) | -9.95% |
| 9 | GALLONS INCLUDED IN MONHTLY MINIMUM CHARGE | 0 | 0 | | | 0 | | |

REFERENCES
COLUMN (A) THRU COLUMN (D): COMPANY SCHEDULE H-3, PAGE 1 OF 3
COLUMN (E): TESTIMONY TJC
COLUMN (F): COLUMN (E) - COLUMN (A)
COLUMN (G): COLUMN (F) ÷ COLUMN (A)

GOODMAN WATER COMPANY - SURREBUTTAL RESIDENTIAL RATE DESIGN
TEST YEAR ENDED DECEMBER 31, 2009
BILLING ANALYSIS

DOCKET NO. W-02500A-10-0382
SCHEDULE TJC RD-5

**RUCO RECOMMENDED RATES**

| LINE NO. | CONSUMPTION IN GALLONS | (A) 5/8 - INCH | (B) 3/4 - INCH | (C) 1 - INCH | (D) 1.5 - INCH | (E) 2 - INCH | (F) 3 - INCH | (G) 4 - INCH | (H) 6 - INCH | (G) 8 - INCH | (H) 10 - INCH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | $38.00 | $57.00 | $95.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 2 | 1,000 | 42.55 | 61.55 | 102.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 3 | 2,000 | 47.10 | 66.10 | 109.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 4 | 3,000 | 51.65 | 70.65 | 116.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 5 | 4,000 | 56.20 | 75.20 | 123.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 6 | 5,000 | 63.20 | 82.20 | 130.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 7 | 6,000 | 70.20 | 89.20 | 137.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 8 | 7,000 | 77.20 | 96.20 | 144.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 9 | 8,000 | 84.20 | 103.20 | 151.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 10 | 9,000 | 91.20 | 110.20 | 158.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 11 | 10,000 | 100.00 | 119.00 | 165.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 12 | 15,000 | 144.03 | 163.03 | 200.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 13 | 20,000 | 188.05 | 207.05 | 235.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 14 | 25,000 | 232.08 | 251.08 | 274.51 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 15 | 50,000 | 452.20 | 471.20 | 494.63 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 16 | 75,000 | 672.32 | 691.32 | 714.76 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 17 | 100,000 | 892.45 | 911.45 | 934.88 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 18 | 125,000 | 1,112.57 | 1,131.57 | 1,155.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 19 | 150,000 | 1,332.69 | 1,351.69 | 1,375.12 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 20 | 175,000 | 1,552.81 | 1,571.81 | 1,595.25 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 21 | 200,000 | 1,772.94 | 1,791.94 | 1,815.37 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 22 | 250,000 | 2,213.18 | 2,232.18 | 2,255.61 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 23 | 500,000 | 4,414.41 | 4,433.41 | 4,456.84 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 24 | 1,000,000 | 8,816.86 | 8,835.86 | 8,859.29 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 25 | 2,000,000 | 17,621.76 | 17,640.76 | 17,664.19 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 26 | 3,000,000 | 26,426.66 | 26,445.66 | 26,469.09 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 27 | 4,000,000 | 35,231.56 | 35,250.56 | 35,273.99 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 28 | 5,000,000 | 44,036.46 | 44,055.46 | 44,078.89 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 29 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 31 | AVG. NO. OF CUST: | 531 | 86 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 32 | | | | | | | | | | | |
| 33 | AVG. USE (GAL.): | 5,520 | 6,027 | 11,000 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 34 | MONTHLY BILL: | $66.84 | $89.39 | $172.00 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 35 | | | | | | | | | | | |
| 36 | MEDIAN USE (GAL.) : | 4,787 | 5,767 | 5,800 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 37 | MONTHLY BILL: | $61.71 | $87.57 | $135.60 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

GOODMAN WATER COMPANY - SURREBUTTAL RESIDENTIAL RATE DESIGN
TEST YEAR ENDED DECEMBER 31, 2009
BILLING ANALYSIS

DOCKET NO. W-02500A-10-0382
SCHEDULE TJC RD-6

RUCO RECOMMENDED CHANGES EXPRESSED IN DOLLARS

| LINE NO. | CONSUMPTION IN GALLONS | (A) 5/8 - INCH | (B) 3/4 - INCH | (C) 1 - INCH | (D) 1.5 - INCH | (E) 2 - INCH | (F) 3 - INCH | (G) 4 - INCH | (H) 6 - INCH | (G) 8 - INCH | (H) 10 - INCH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | ($4.20) | ($6.30) | ($10.50) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 2 | 1,000 | (3.60) | (5.70) | (9.41) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 3 | 2,000 | (3.00) | (5.10) | (8.32) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 4 | 3,000 | (2.40) | (4.50) | (7.23) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 5 | 4,000 | (1.80) | (3.90) | (6.14) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 6 | 5,000 | (0.71) | (2.81) | (5.05) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 7 | 6,000 | 0.38 | (1.72) | (3.96) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 8 | 7,000 | 1.47 | (0.63) | (2.87) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 9 | 8,000 | 2.56 | 0.46 | (1.78) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 10 | 9,000 | 3.65 | 1.55 | (0.69) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 11 | 10,000 | 5.34 | 3.24 | 0.40 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 12 | 15,000 | 13.82 | 11.72 | 5.85 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 13 | 20,000 | 22.29 | 20.19 | 11.30 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 14 | 25,000 | 30.77 | 28.67 | 18.26 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 15 | 50,000 | 73.14 | 71.04 | 60.63 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 16 | 75,000 | 115.51 | 113.41 | 103.01 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 17 | 100,000 | 157.89 | 155.79 | 145.38 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 18 | 125,000 | 200.26 | 198.16 | 187.75 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 19 | 150,000 | 242.63 | 240.53 | 230.12 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 20 | 175,000 | 285.00 | 282.90 | 272.50 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 21 | 200,000 | 327.38 | 325.28 | 314.87 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 22 | 250,000 | 412.12 | 410.02 | 399.61 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 23 | 500,000 | 835.85 | 833.75 | 823.34 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 24 | 1,000,000 | 1,683.30 | 1,681.20 | 1,670.79 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 25 | 2,000,000 | 3,378.20 | 3,376.10 | 3,365.69 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 26 | 3,000,000 | 5,073.10 | 5,071.00 | 5,060.59 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 27 | 4,000,000 | 6,768.00 | 6,765.90 | 6,755.49 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 28 | 5,000,000 | 8,462.90 | 8,460.80 | 8,450.39 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 29 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 31 | AVG. NO. OF CUST: | 531 | 86 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 32 | | | | | | | | | | | |
| 33 | AVG. USE (GAL.): | 5,520 | 6,027 | 11,000 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 34 | MONTHLY BILL: | ($0.14) | ($1.69) | $1.49 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 35 | | | | | | | | | | | |
| 36 | MEDIAN USE (GAL.) : | 4,787 | 5,767 | 5,800 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 37 | MONTHLY BILL: | ($0.94) | ($1.97) | ($4.18) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

GOODMAN WATER COMPANY - SURREBUTTAL RESIDENTIAL RATE DESIGN
TEST YEAR ENDED DECEMBER 31, 2009
BILLING ANALYSIS

DOCKET NO. W-02500A-10-0382
SCHEDULE TJC RD-7

RUCO RECOMMENDED CHANGES EXPRESSED AS A PERCENTAGE

| LINE NO. | CONSUMPTION IN GALLONS | (A) 5/8 - INCH | (B) 3/4 - INCH | (C) 1 - INCH | (D) 1.5 - INCH | (E) 2 - INCH | (F) 3 - INCH | (G) 4 - INCH | (H) 6 - INCH | (G) 8 - INCH | (H) 10 - INCH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | -10.0% | -10.0% | -10.0% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 2 | 1,000 | -7.8% | -8.5% | -8.4% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 3 | 2,000 | -6.0% | -7.2% | -7.1% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 4 | 3,000 | -4.4% | -6.0% | -5.9% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 5 | 4,000 | -3.1% | -4.9% | -4.8% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 6 | 5,000 | -1.1% | -3.3% | -3.7% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 7 | 6,000 | 0.5% | -1.9% | -2.8% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 8 | 7,000 | 1.9% | -0.7% | -2.0% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 9 | 8,000 | 3.1% | 0.4% | -1.2% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 10 | 9,000 | 4.2% | 1.4% | -0.4% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 11 | 10,000 | 5.6% | 2.8% | 0.2% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 12 | 15,000 | 10.6% | 7.7% | 3.0% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 13 | 20,000 | 13.4% | 10.8% | 5.1% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 14 | 25,000 | 15.3% | 12.9% | 7.1% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 15 | 50,000 | 19.3% | 17.8% | 14.0% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 16 | 75,000 | 20.7% | 19.6% | 16.8% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 17 | 100,000 | 21.5% | 20.6% | 18.4% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 18 | 125,000 | 22.0% | 21.2% | 19.4% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 19 | 150,000 | 22.3% | 21.6% | 20.1% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 20 | 175,000 | 22.5% | 21.9% | 20.6% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 21 | 200,000 | 22.6% | 22.2% | 21.0% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 22 | 250,000 | 22.9% | 22.5% | 21.5% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 23 | 500,000 | 23.4% | 23.2% | 22.7% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 24 | 1,000,000 | 23.6% | 23.5% | 23.2% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 25 | 2,000,000 | 23.7% | 23.7% | 23.5% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 26 | 3,000,000 | 23.8% | 23.7% | 23.6% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 27 | 4,000,000 | 23.8% | 23.8% | 23.7% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 28 | 5,000,000 | 23.8% | 23.8% | 23.7% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 29 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 31 | AVG. NO. OF CUST: | 531 | 86 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 32 | | | | | | | | | | | |
| 33 | AVG. USE (GAL.): | 5,520 | 6,027 | 11,000 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 34 | MONTHLY BILL: | -0.2% | -1.9% | 0.9% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 35 | | | | | | | | | | | |
| 36 | MEDIAN USE (GAL.) : | 4,787 | 5,767 | 5,800 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 37 | MONTHLY BILL: | -1.5% | -2.2% | -3.0% | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

GOODMAN WATER COMPANY –
TJC SURREBUTTAL COMMERCIAL RATE DESIGN SCHEDULES

DOCKET NO. W-02500A-10-0382

GOODMAN WATER COMPANY - SURREBUTTAL COMMERCIAL RATE DESIGN
TEST YEAR ENDED DECEMBER 31, 2009
SUMMARY OF PRESENT, COMPANY PROPOSED & RUCO RECOMMENDED RATES

DOCKET NO. W-02500A-10-0382
SCHEDULE TJC RD-1

## RATE SUMMARY

**Present Rates**

| A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Meter Size | Number of Bills | Total Gallons Consumed (Midrange) | Minimum Gallons | Monthly Minimum Charge | Metered Minimum Revenue B X E | Tier One Gallons Subject to Comodity Charge (Midrange) | Tier One Commodity Revenue per 1,000 Gal. | Tier Two Gallons Subject to Comodity Charge (Midrange) | Tier Two Commodity Revenue per 1,000 Gal. | Tier Three Gallons Subject to Comodity Charge (Midrange) | Tier Three Commodity Revenue per 1,000 Gal. | Total Metered Revenue F + H + J + L |
| 5/8 - INCH | 0 | 0 | 0 | $42.20 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | $0 |
| 3/4 - INCH | 0 | 0 | 0 | 63.30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 - INCH | 36 | 27,835,236 | 0 | 105.50 | 3,798 | 615,000 | 3,635 | 1,915,476 | 13,619 | 0 | 0 | 21,052 |
| 1 1/2 - INCH | 12 | 66,000 | 0 | 211.50 | 2,538 | 6,000 | 35 | 0 | 0 | 0 | 0 | 2,573 |
| 2 - INCH | 24 | 14,997,400 | 0 | 339.68 | 8,152 | 661,500 | 3,909 | 701,900 | 4,991 | 0 | 0 | 17,052 |
| 3 - INCH | 0 | 0 | 0 | 675.20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 - INCH | 0 | 0 | 0 | 1,055.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 - INCH | 0 | 0 | 0 | 2,110.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 - INCH | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 - INCH | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 72 | 42,898,636 | 0 | | $14,488 | 1,282,500 | $7,580 | 2,617,376 | $18,610 | 0 | $0 | $40,677 |

**Company Proposed Rates**

| A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Meter Size | Number of Bills | Total Gallons Consumed (Midrange) | Minimum Gallons | Monthly Minimum Charge | Metered Minimum Revenue B X E | Tier One Gallons Subject to Comodity Charge (Midrange) | Tier One Commodity Revenue per 1,000 Gal. | Tier Two Gallons Subject to Comodity Charge (Midrange) | Tier Two Commodity Revenue per 1,000 Gal. | Tier Three Gallons Subject to Comodity Charge (Midrange) | Tier Three Commodity Revenue per 1,000 Gal. | Total Metered Revenue F + H + J + L |
| 5/8 - INCH | 0 | 0 | 0 | $52.20 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | $0 |
| 3/4 - INCH | 0 | 0 | 0 | 78.30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 - INCH | 36 | 27,835,236 | 0 | 130.50 | 4,698 | 615,000 | 6,931 | 1,915,476 | 25,678 | 0 | 0 | 37,308 |
| 1 1/2 - INCH | 12 | 66,000 | 0 | 261.01 | 3,132 | 6,000 | 68 | 0 | 0 | 0 | 0 | 3,200 |
| 2 - INCH | 24 | 14,997,400 | 0 | 417.61 | 10,023 | 661,500 | 7,455 | 701,900 | 9,410 | 0 | 0 | 26,887 |
| 3 - INCH | 0 | 0 | 0 | 835.22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 - INCH | 0 | 0 | 0 | 1,305.04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 - INCH | 0 | 0 | 0 | 2,610.07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 - INCH | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 - INCH | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 72 | 42,898,636 | 0 | | $17,853 | 1,282,500 | $14,454 | 2,617,376 | $35,088 | 0 | $0 | $67,394 |

**RUCO Recommended Rates**

| A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Meter Size | Number of Bills | Total Gallons Consumed (Midrange) | Minimum Gallons | Monthly Minimum Charge | Metered Minimum Revenue B X E | Tier One Gallons Subject to Comodity Charge (Midrange) | Tier One Commodity Revenue per 1,000 Gal. | Tier Two Gallons Subject to Comodity Charge (Midrange) | Tier Two Commodity Revenue per 1,000 Gal. | Tier Three Gallons Subject to Comodity Charge (Midrange) | Tier Three Commodity Revenue per 1,000 Gal. | Total Metered Revenue F + H + J + L |
| 5/8 - INCH | 0 | 0 | 0 | $38.00 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | $0 |
| 3/4 - INCH | 0 | 0 | 0 | 57.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 - INCH | 36 | 27,835,236 | 0 | 95.00 | 3,420 | 615,000 | 4,305 | 1,915,476 | 16,866 | 0 | 0 | 24,591 |
| 1 1/2 - INCH | 12 | 66,000 | 0 | 190.00 | 2,280 | 6,000 | 42 | 0 | 0 | 0 | 0 | 2,322 |
| 2 - INCH | 24 | 14,997,400 | 0 | 304.00 | 7,296 | 661,500 | 4,631 | 661,500 | 6,180 | 0 | 0 | 18,107 |
| 3 - INCH | 0 | 0 | 0 | 570.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 - INCH | 0 | 0 | 0 | 950.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 - INCH | 0 | 0 | 0 | 1,900.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 - INCH | 0 | 0 | 0 | 3,800.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 - INCH | 0 | 0 | 0 | 7,600.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 72 | 42,898,636 | 0 | | $12,996 | 1,282,500 | $8,978 | 2,576,976 | $23,046 | 0 | $0 | $45,019 |

GOODMAN WATER COMPANY - SURREBUTTAL COMMERCIAL RATE DESIGN
TEST YEAR ENDED DECEMBER 31, 2009
REVENUE COMPARISON

DOCKET NO. W-02500A-10-0382
SCHEDULE TJC RD-2

| LINE NO. | METER SIZE | PERESENT RATES MONTHLY MINIMUM | PERESENT RATES COMMODITY CHARGE | PERESENT RATES TOTAL REVENUE | COMPANY PROPOSED RATES MONTHLY MINIMUM | COMPANY PROPOSED RATES COMMODITY CHARGE | COMPANY PROPOSED RATES TOTAL REVENUE | RUCO RECOMMENDED RATES MONTHLY MINIMUM | RUCO RECOMMENDED RATES COMMODITY CHARGE | RUCO RECOMMENDED RATES TOTAL REVENUE |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/8 - INCH | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 2 | 3/4 - INCH | - | - | - | - | - | - | - | - | - |
| 3 | 1 - INCH | 3,798 | 17,254 | 21,052 | 4,698 | 32,609 | 37,308 | 3,420 | 21,171 | 24,591 |
| 4 | 1 1/2 - INCH | 2,538 | 35 | 2,573 | 3,132 | 68 | 3,200 | 2,280 | 42 | 2,322 |
| 5 | 2 - INCH | 8,152 | 8,900 | 17,052 | 10,023 | 16,865 | 26,887 | 7,296 | 10,811 | 18,107 |
| 6 | 3 - INCH | - | - | - | - | - | - | - | - | - |
| 7 | 4 - INCH | - | - | - | - | - | - | - | - | - |
| 8 | 6 - INCH | - | - | - | - | - | - | - | - | - |
| 9 | 8 - INCH | - | - | - | - | - | - | - | - | - |
| 10 | 10 - INCH | - | - | - | - | - | - | - | - | - |
| 11 | **TOTALS** | **$ 14,488** | **$ 26,189** | **$ 40,677** | **$ 17,853** | **$ 49,542** | **$ 67,394** | **$ 12,996** | **$ 32,023** | **$ 45,019** |
| 12 | **PERCENTAGE** | **35.62%** | **64.38%** | **100.00%** | **26.49%** | **73.51%** | **100.00%** | **28.87%** | **71.13%** | **100.00%** |

**GOODMAN WATER COMPANY - SURREBUTTAL COMMERCIAL RATE DESIGN**
**TEST YEAR ENDED DECEMBER 31, 2009**
**RECOMMENDED RATES**

**DOCKET NO. W-02500A-10-0382**
**SCHEDULE TJC RD-3**

| LINE NO. | DESCRIPTION | | | | | | PRESENT RATES | COMPANY PROPOSED | RUCO PROPOSED |
|---|---|---|---|---|---|---|---|---|---|
| 1 | **RECOMMENDED MONTHLY MINIMUM USAGE CHARGE:** | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | (RESIDENTIAL, COMMERCIAL AND MISC. CUSTOMERS) | | | | | | | | |
| 4 | 5/8 - INCH | | | | | | $42.20 | $52.20 | $38.00 |
| 5 | 3/4 - INCH | | | | | | 63.30 | 78.30 | 57.00 |
| 6 | 1 - INCH | | | | | | 105.50 | 130.50 | 95.00 |
| 7 | 1 1/2 - INCH | | | | | | 211.50 | 261.01 | 190.00 |
| 8 | 2 - INCH | | | | | | 339.68 | 417.61 | 304.00 |
| 9 | 3 - INCH | | | | | | 675.20 | 835.22 | 570.00 |
| 10 | 4 - INCH | | | | | | 1,055.00 | 1,305.04 | 950.00 |
| 11 | 6 - INCH | | | | | | 2,110.00 | 2,610.07 | 1,900.00 |
| 12 | 8 - INCH | | | | | | 0.00 | 0.00 | 3,800.00 |
| 13 | 10 - INCH | | | | | | 0.00 | 0.00 | 7,600.00 |
| 14 | | | | | | | | | |
| 15 | **GALLONS INCLUDED IN MONTHLY MINIMUM USAGE CHARGE:** | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | RESIDENTIAL, COMMERCIAL AND MISC. CUSTOMERS | | | | | | 0 | 0 | 0 |
| 18 | | | | | | | | | |
| 19 | **RECOMMENDED COMMODITY RATES BY METER SIZE** | | | | | | | | |
| 20 | | | | | | | | | |
| 21 | 5/8 - INCH | | | | | | | | |
| 22 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 4,000 | GALLONS: | | $ 3.95 | $ 6.28 | $ 4.55 |
| 23 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | 4,001 | TO | 9,000 | GALLONS: | | $ 5.91 | $ 11.27 | $ 7.00 |
| 24 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 9,000 | GALLONS: | | $ 7.11 | $ 13.41 | $ 8.80 |
| 25 | | | | | | | | | |
| 26 | 3/4 - INCH | | | | | | | | |
| 27 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 4,000 | GALLONS: | | $ 3.95 | $ 6.28 | $ 4.55 |
| 28 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 9,000 | GALLONS: | | $ 5.91 | $ 11.27 | $ 7.00 |
| 29 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 9,000 | GALLONS: | | $ 7.11 | $ 13.41 | $ 8.80 |
| 30 | | | | | | | | | |
| 31 | 1 - INCH | | | | | | | | |
| 32 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 22,500 | GALLONS: | | $ 5.91 | $ 11.27 | $ 7.00 |
| 33 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ 7.11 | $ 13.41 | $ 8.80 |
| 34 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ - | $ 13.41 | $ - |
| 35 | | | | | | | | | |
| 36 | 1 1/2 - INCH | | | | | | | | |
| 37 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 34,000 | GALLONS: | | $ 5.91 | $ 11.27 | $ 7.00 |
| 38 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ 7.11 | $ 13.41 | $ 8.80 |
| 39 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ - | $ - | $ - |
| 40 | | | | | | | | | |
| 41 | 2 - INCH | | | | | | | | |
| 42 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 45,000 | GALLONS: | | $ 5.91 | $ 11.27 | $ 7.00 |
| 43 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | 45,001 | TO | 999,999,999,999,999,000 | GALLONS: | | $ 7.11 | $ 13.41 | $ 8.80 |
| 44 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ - | $ - | $ - |
| 45 | | | | | | | | | |
| 46 | 3 - INCH | | | | | | | | |
| 47 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 68,000 | GALLONS: | | $ 5.91 | $ 11.27 | $ 7.00 |
| 48 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | 68,001 | TO | 999,999,999,999,999,000 | GALLONS: | | $ 7.11 | $ 13.41 | $ 8.80 |
| 49 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ - | $ - | $ - |
| 50 | | | | | | | | | |
| 51 | 4 - INCH | | | | | | | | |
| 52 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 90,000 | GALLONS: | | $ 5.91 | $ 11.27 | $ 7.00 |
| 53 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | 90,001 | TO | 999,999,999,999,999,000 | GALLONS: | | $ 7.11 | $ 13.41 | $ 8.80 |
| 54 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ - | $ - | $ - |
| 55 | | | | | | | | | |
| 56 | 6 - INCH | | | | | | | | |
| 57 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 135,000 | GALLONS: | | $ 5.91 | $ 11.27 | $ 7.00 |
| 58 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | 135,001 | TO | 999,999,999,999,999,000 | GALLONS: | | $ 7.11 | $ 13.41 | $ 8.80 |
| 59 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ - | $ - | $ - |
| 60 | | | | | | | | | |
| 61 | 8 - INCH | | | | | | | | |
| 62 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 0 | GALLONS: | | $ 5.91 | $ 11.27 | $ 7.00 |
| 63 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ 7.11 | $ 13.41 | $ 8.80 |
| 64 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ - | $ - | $ - |
| 65 | | | | | | | | | |
| 66 | 10 - INCH | | | | | | | | |
| 67 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | ZERO | TO | 0 | GALLONS: | | $ 5.91 | $ 11.27 | $ 7.00 |
| 68 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ 7.11 | $ 13.41 | $ 8.80 |
| 69 | COMMODITY RATE (PER 1,000 GAL. OVER MINIMUM) - | OVER | | 999,999,999,999,999,000 | GALLONS: | | $ - | $ - | $ - |

**GOODMAN WATER COMPANY - SURREBUTTAL COMMERCIAL RATE DESIGN**
**TEST YEAR ENDED DECEMBER 31, 2009**
**MONTHLY MINIMUM CHARGES**

**DOCKET NO. W-02500A-10-0382**
**SCHEDULE TJC RD-4**

| LINE NO. | METER SIZE | (A) COMPANY PRESENT RATES | (B) COMPANY PROPOSED RATES | (C) COMPANY DOLLAR INCREASE | (D) COMPANY PERCENT. INCREASE | (E) RUCO RECOMMENDED RATES | (F) RUCO DOLLAR INCREASE | (G) RUCO PERCENT. INCREASE |
|---|---|---|---|---|---|---|---|---|
| 1 | 5/8 - INCH | $ 42.20 | $ 52.20 | $ 10.00 | 23.70% | $ 38.00 | $ (4.20) | -9.95% |
| 2 | 3/4 - INCH | 63.30 | 78.30 | 15.00 | 23.70% | 57.00 | (6.30) | -9.95% |
| 3 | 1 - INCH | 105.50 | 130.50 | 25.00 | 23.70% | 95.00 | (10.50) | -9.95% |
| 4 | 1 1/2 - INCH | 211.50 | 261.01 | 49.51 | 23.41% | 190.00 | (21.50) | -10.17% |
| 5 | 2 - INCH | 339.68 | 417.61 | 77.93 | 22.94% | 304.00 | (35.68) | -10.50% |
| 6 | 3 - INCH | 675.20 | 835.22 | 160.02 | 23.70% | 570.00 | (105.20) | -15.58% |
| 7 | 4 - INCH | 1,055.00 | 1,305.04 | 250.04 | 23.70% | 950.00 | (105.00) | -9.95% |
| 8 | 6 - INCH | 2,110.00 | 2,610.07 | 500.07 | 23.70% | 1,900.00 | (210.00) | -9.95% |
| 9 | 8 - INCH | 0.00 | 0.00 | 0.00 | #DIV/0! | 3,800.00 | 3,800.00 | #DIV/0! |
| 10 | 10 - INCH | 0.00 | 0.00 | 0.00 | #DIV/0! | 7,600.00 | 7,600.00 | #DIV/0! |
| 11 | GALLONS INCLUDED IN MONHTLY MINIMUM CHARGE | 0 | 0 | | | 0 | | |

REFERENCES
COLUMN (A) THRU COLUMN (D): COMPANY SCHEDULE H-3, PAGE 1 OF 3
COLUMN (E): TESTIMONY XXX
COLUMN (F): COLUMN (E) - COLUMN (A)
COLUMN (G): COLUMN (F) ÷ COLUMN (A)

**GOODMAN WATER COMPANY - SURREBUTTAL COMMERCIAL RATE DESIGN**
**TEST YEAR ENDED DECEMBER 31, 2009**
**BILLING ANALYSIS**

**DOCKET NO. W-02500A-10-0382**
**SCHEDULE XXX-XX**


**PRESENT RATES**

| LINE NO. | CONSUMPTION IN GALLONS | (A) 5/8 - INCH | (B) 3/4 - INCH | (C) 1 - INCH | (D) 1.5 - INCH | (E) 2 - INCH | (F) 3 - INCH | (G) 4 - INCH | (H) 6 - INCH | (G) 8 - INCH | (H) 10 - INCH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | $42.20 | $63.30 | $105.50 | $211.50 | $339.68 | $675.20 | $1,055.00 | $2,110.00 | $0.00 | $0.00 |
| 2 | 1,000 | 46.15 | 67.25 | 111.41 | 217.41 | 345.59 | 681.11 | 1,060.91 | 2,115.91 | 7.11 | 7.11 |
| 3 | 2,000 | 50.10 | 71.20 | 117.32 | 223.32 | 351.50 | 687.02 | 1,066.82 | 2,121.82 | 14.22 | 14.22 |
| 4 | 3,000 | 54.05 | 75.15 | 123.23 | 229.23 | 357.41 | 692.93 | 1,072.73 | 2,127.73 | 21.33 | 21.33 |
| 5 | 4,000 | 58.00 | 79.10 | 129.14 | 235.14 | 363.32 | 698.84 | 1,078.64 | 2,133.64 | 28.44 | 28.44 |
| 6 | 5,000 | 63.91 | 85.01 | 135.05 | 241.05 | 369.23 | 704.75 | 1,084.55 | 2,139.55 | 35.55 | 35.55 |
| 7 | 6,000 | 69.82 | 90.92 | 140.96 | 246.96 | 375.14 | 710.66 | 1,090.46 | 2,145.46 | 42.66 | 42.66 |
| 8 | 7,000 | 75.73 | 96.83 | 146.87 | 252.87 | 381.05 | 716.57 | 1,096.37 | 2,151.37 | 49.77 | 49.77 |
| 9 | 8,000 | 81.64 | 102.74 | 152.78 | 258.78 | 386.96 | 722.48 | 1,102.28 | 2,157.28 | 56.88 | 56.88 |
| 10 | 9,000 | 87.55 | 108.65 | 158.69 | 264.69 | 392.87 | 728.39 | 1,108.19 | 2,163.19 | 63.99 | 63.99 |
| 11 | 10,000 | 94.66 | 115.76 | 164.60 | 270.60 | 398.78 | 734.30 | 1,114.10 | 2,169.10 | 71.10 | 71.10 |
| 12 | 15,000 | 130.21 | 151.31 | 194.15 | 300.15 | 428.33 | 763.85 | 1,143.65 | 2,198.65 | 106.65 | 106.65 |
| 13 | 20,000 | 165.76 | 186.86 | 223.70 | 329.70 | 457.88 | 793.40 | 1,173.20 | 2,228.20 | 142.20 | 142.20 |
| 14 | 25,000 | 201.31 | 222.41 | 256.25 | 359.25 | 487.43 | 822.95 | 1,202.75 | 2,257.75 | 177.75 | 177.75 |
| 15 | 50,000 | 379.06 | 400.16 | 434.00 | 526.20 | 641.18 | 970.70 | 1,350.50 | 2,405.50 | 355.50 | 355.50 |
| 16 | 75,000 | 556.81 | 577.91 | 611.75 | 703.95 | 818.93 | 1,126.85 | 1,498.25 | 2,553.25 | 533.25 | 533.25 |
| 17 | 100,000 | 734.56 | 755.66 | 789.50 | 881.70 | 996.68 | 1,304.60 | 1,658.00 | 2,701.00 | 711.00 | 711.00 |
| 18 | 125,000 | 912.31 | 933.41 | 967.25 | 1,059.45 | 1,174.43 | 1,482.35 | 1,835.75 | 2,848.75 | 888.75 | 888.75 |
| 19 | 150,000 | 1,090.06 | 1,111.16 | 1,145.00 | 1,237.20 | 1,352.18 | 1,660.10 | 2,013.50 | 3,014.50 | 1,066.50 | 1,066.50 |
| 20 | 175,000 | 1,267.81 | 1,288.91 | 1,322.75 | 1,414.95 | 1,529.93 | 1,837.85 | 2,191.25 | 3,192.25 | 1,244.25 | 1,244.25 |
| 21 | 200,000 | 1,445.56 | 1,466.66 | 1,500.50 | 1,592.70 | 1,707.68 | 2,015.60 | 2,369.00 | 3,370.00 | 1,422.00 | 1,422.00 |
| 22 | 250,000 | 1,801.06 | 1,822.16 | 1,856.00 | 1,948.20 | 2,063.18 | 2,371.10 | 2,724.50 | 3,725.50 | 1,777.50 | 1,777.50 |
| 23 | 500,000 | 3,578.56 | 3,599.66 | 3,633.50 | 3,725.70 | 3,840.68 | 4,148.60 | 4,502.00 | 5,503.00 | 3,555.00 | 3,555.00 |
| 24 | 1,000,000 | 7,133.56 | 7,154.66 | 7,188.50 | 7,280.70 | 7,395.68 | 7,703.60 | 8,057.00 | 9,058.00 | 7,110.00 | 7,110.00 |
| 25 | 2,000,000 | 14,243.56 | 14,264.66 | 14,298.50 | 14,390.70 | 14,505.68 | 14,813.60 | 15,167.00 | 16,168.00 | 14,220.00 | 14,220.00 |
| 26 | 3,000,000 | 21,353.56 | 21,374.66 | 21,408.50 | 21,500.70 | 21,615.68 | 21,923.60 | 22,277.00 | 23,278.00 | 21,330.00 | 21,330.00 |
| 27 | 4,000,000 | 28,463.56 | 28,484.66 | 28,518.50 | 28,610.70 | 28,725.68 | 29,033.60 | 29,387.00 | 30,388.00 | 28,440.00 | 28,440.00 |
| 28 | 5,000,000 | 35,573.56 | 35,594.66 | 35,628.50 | 35,720.70 | 35,835.68 | 36,143.60 | 36,497.00 | 37,498.00 | 35,550.00 | 35,550.00 |
| 29 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 31 | AVG. NO. OF CUST: | 0 | 0 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| 32 | | | | | | | | | | | |
| 33 | AVG. USE (GAL.): | N/A | N/A | 70,291 | 500 | 56,808 | N/A | N/A | N/A | N/A | N/A |
| 34 | MONTHLY BILL: | N/A | N/A | $578.27 | $214.46 | $689.59 | N/A | N/A | N/A | N/A | N/A |
| 35 | | | | | | | | | | | |
| 36 | MEDIAN USE (GAL.) : | N/A | N/A | 100,714 | N/A | 100,286 | N/A | N/A | N/A | N/A | N/A |
| 37 | MONTHLY BILL: | N/A | N/A | $794.58 | N/A | $998.71 | N/A | N/A | N/A | N/A | N/A |

GOODMAN WATER COMPANY - SURREBUTTAL COMMERCIAL RATE DESIGN
TEST YEAR ENDED DECEMBER 31, 2009
BILLING ANALYSIS

DOCKET NO. W-02500A-10-0382
SCHEDULE TJC RD-6

**RUCO RECOMMENDED CHANGES EXPRESSED IN DOLLARS**

| LINE NO. | CONSUMPTION IN GALLONS | (A) 5/8 - INCH | (B) 3/4 - INCH | (C) 1 - INCH | (D) 1.5 - INCH | (E) 2 - INCH | (F) 3 - INCH | (G) 4 - INCH | (H) 6 - INCH | (G) 8 - INCH | (H) 10 - INCH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | ($4.20) | ($6.30) | ($10.50) | ($21.50) | ($35.68) | ($105.20) | ($105.00) | ($210.00) | $3,800.00 | $7,600.00 |
| 2 | 1,000 | (3.60) | (5.70) | (9.41) | (20.41) | (34.59) | (104.11) | (103.91) | (208.91) | 3,801.69 | 7,601.69 |
| 3 | 2,000 | (3.00) | (5.10) | (8.32) | (19.32) | (33.50) | (103.02) | (102.82) | (207.82) | 3,803.39 | 7,603.39 |
| 4 | 3,000 | (2.40) | (4.50) | (7.23) | (18.23) | (32.41) | (101.93) | (101.73) | (206.73) | 3,805.08 | 7,605.08 |
| 5 | 4,000 | (1.80) | (3.90) | (6.14) | (17.14) | (31.32) | (100.84) | (100.64) | (205.64) | 3,806.78 | 7,606.78 |
| 6 | 5,000 | (0.71) | (2.81) | (5.05) | (16.05) | (30.23) | (99.75) | (99.55) | (204.55) | 3,808.47 | 7,608.47 |
| 7 | 6,000 | 0.38 | (1.72) | (3.96) | (14.96) | (29.14) | (98.66) | (98.46) | (203.46) | 3,810.17 | 7,610.17 |
| 8 | 7,000 | 1.47 | (0.63) | (2.87) | (13.87) | (28.05) | (97.57) | (97.37) | (202.37) | 3,811.86 | 7,611.86 |
| 9 | 8,000 | 2.56 | 0.46 | (1.78) | (12.78) | (26.96) | (96.48) | (96.28) | (201.28) | 3,813.56 | 7,613.56 |
| 10 | 9,000 | 3.65 | 1.55 | (0.69) | (11.69) | (25.87) | (95.39) | (95.19) | (200.19) | 3,815.25 | 7,615.25 |
| 11 | 10,000 | 5.34 | 3.24 | 0.40 | (10.60) | (24.78) | (94.30) | (94.10) | (199.10) | 3,816.95 | 7,616.95 |
| 12 | 15,000 | 13.82 | 11.72 | 5.85 | (5.15) | (19.33) | (88.85) | (88.65) | (193.65) | 3,825.42 | 7,625.42 |
| 13 | 20,000 | 22.29 | 20.19 | 11.30 | 0.30 | (13.88) | (83.40) | (83.20) | (188.20) | 3,833.90 | 7,633.90 |
| 14 | 25,000 | 30.77 | 28.67 | 18.26 | 5.75 | (8.43) | (77.95) | (77.75) | (182.75) | 3,842.37 | 7,642.37 |
| 15 | 50,000 | 73.14 | 71.04 | 60.63 | 42.68 | 21.84 | (50.70) | (50.50) | (155.50) | 3,884.75 | 7,684.75 |
| 16 | 75,000 | 115.51 | 113.41 | 103.01 | 85.05 | 64.22 | (19.22) | (23.25) | (128.25) | 3,927.12 | 7,727.12 |
| 17 | 100,000 | 157.89 | 155.79 | 145.38 | 127.42 | 106.59 | 23.16 | 10.05 | (101.00) | 3,969.49 | 7,769.49 |
| 18 | 125,000 | 200.26 | 198.16 | 187.75 | 169.80 | 148.96 | 65.53 | 52.42 | (73.75) | 4,011.86 | 7,811.86 |
| 19 | 150,000 | 242.63 | 240.53 | 230.12 | 212.17 | 191.33 | 107.90 | 94.79 | (37.43) | 4,054.24 | 7,854.24 |
| 20 | 175,000 | 285.00 | 282.90 | 272.50 | 254.54 | 233.71 | 150.27 | 137.17 | 4.95 | 4,096.61 | 7,896.61 |
| 21 | 200,000 | 327.38 | 325.28 | 314.87 | 296.91 | 276.08 | 192.65 | 179.54 | 47.32 | 4,138.98 | 7,938.98 |
| 22 | 250,000 | 412.12 | 410.02 | 399.61 | 381.66 | 360.82 | 277.39 | 264.28 | 132.06 | 4,223.73 | 8,023.73 |
| 23 | 500,000 | 835.85 | 833.75 | 823.34 | 805.38 | 784.55 | 701.12 | 688.01 | 555.79 | 4,647.45 | 8,447.45 |
| 24 | 1,000,000 | 1,683.30 | 1,681.20 | 1,670.79 | 1,652.83 | 1,632.00 | 1,548.57 | 1,535.46 | 1,403.24 | 5,494.90 | 9,294.90 |
| 25 | 2,000,000 | 3,378.20 | 3,376.10 | 3,365.69 | 3,347.73 | 3,326.90 | 3,243.47 | 3,230.36 | 3,098.14 | 7,189.80 | 10,989.80 |
| 26 | 3,000,000 | 5,073.10 | 5,071.00 | 5,060.59 | 5,042.63 | 5,021.80 | 4,938.37 | 4,925.26 | 4,793.04 | 8,884.70 | 12,684.70 |
| 27 | 4,000,000 | 6,768.00 | 6,765.90 | 6,755.49 | 6,737.53 | 6,716.70 | 6,633.27 | 6,620.16 | 6,487.94 | 10,579.60 | 14,379.60 |
| 28 | 5,000,000 | 8,462.90 | 8,460.80 | 8,450.39 | 8,432.43 | 8,411.60 | 8,328.17 | 8,315.06 | 8,182.84 | 12,274.50 | 16,074.50 |
| 29 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 31 | AVG. NO. OF CUST: | 0 | 0 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| 32 | | | | | | | | | | | |
| 33 | AVG. USE (GAL.): | N/A | N/A | 70,291 | 500 | 56,808 | N/A | N/A | N/A | N/A | N/A |
| 34 | MONTHLY BILL: | N/A | N/A | $95.02 | ($20.96) | $33.38 | N/A | N/A | N/A | N/A | N/A |
| 35 | | | | | | | | | | | |
| 36 | MEDIAN USE (GAL.) : | N/A | N/A | 100,714 | N/A | 100,286 | N/A | N/A | N/A | N/A | N/A |
| 37 | MONTHLY BILL: | N/A | N/A | $146.59 | N/A | $107.08 | N/A | N/A | N/A | N/A | N/A |

GOODMAN WATER COMPANY - SURREBUTTAL COMMERCIAL RATE DESIGN
TEST YEAR ENDED DECEMBER 31, 2009
BILLING ANALYSIS

DOCKET NO. W-02500A-10-0382
SCHEDULE TJC RD-7

**RUCO RECOMMENDED CHANGES EXPRESSED AS A PERCENTAGE**

| LINE NO. | CONSUMPTION IN GALLONS | (A) 5/8 - INCH | (B) 3/4 - INCH | (C) 1 - INCH | (D) 1.5 - INCH | (E) 2 - INCH | (F) 3 - INCH | (G) 4 - INCH | (H) 6 - INCH | (G) 8 - INCH | (H) 10 - INCH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | -10.0% | -10.0% | -10.0% | -10.2% | -10.5% | -15.6% | -10.0% | -10.0% | #DIV/0! | #DIV/0! |
| 2 | 1,000 | -7.8% | -8.5% | -8.4% | -9.4% | -10.0% | -15.3% | -9.8% | -9.9% | 53469.6% | 106915.5% |
| 3 | 2,000 | -6.0% | -7.2% | -7.1% | -8.7% | -9.5% | -15.0% | -9.6% | -9.8% | 26746.8% | 53469.7% |
| 4 | 3,000 | -4.4% | -6.0% | -5.9% | -8.0% | -9.1% | -14.7% | -9.5% | -9.7% | 17839.1% | 35654.4% |
| 5 | 4,000 | -3.1% | -4.9% | -4.8% | -7.3% | -8.6% | -14.4% | -9.3% | -9.6% | 13385.3% | 26746.8% |
| 6 | 5,000 | -1.1% | -3.3% | -3.7% | -6.7% | -8.2% | -14.2% | -9.2% | -9.6% | 10713.0% | 21402.2% |
| 7 | 6,000 | 0.5% | -1.9% | -2.8% | -6.1% | -7.8% | -13.9% | -9.0% | -9.5% | 8931.5% | 17839.1% |
| 8 | 7,000 | 1.9% | -0.7% | -2.0% | -5.5% | -7.4% | -13.6% | -8.9% | -9.4% | 7659.0% | 15294.1% |
| 9 | 8,000 | 3.1% | 0.4% | -1.2% | -4.9% | -7.0% | -13.4% | -8.7% | -9.3% | 6704.6% | 13385.3% |
| 10 | 9,000 | 4.2% | 1.4% | -0.4% | -4.4% | -6.6% | -13.1% | -8.6% | -9.3% | 5962.3% | 11900.7% |
| 11 | 10,000 | 5.6% | 2.8% | 0.2% | -3.9% | -6.2% | -12.8% | -8.4% | -9.2% | 5368.4% | 10713.0% |
| 12 | 15,000 | 10.6% | 7.7% | 3.0% | -1.7% | -4.5% | -11.6% | -7.8% | -8.8% | 3586.9% | 7149.9% |
| 13 | 20,000 | 13.4% | 10.8% | 5.1% | 0.1% | -3.0% | -10.5% | -7.1% | -8.4% | 2696.1% | 5368.4% |
| 14 | 25,000 | 15.3% | 12.9% | 7.1% | 1.6% | -1.7% | -9.5% | -6.5% | -8.1% | 2161.7% | 4299.5% |
| 15 | 50,000 | 19.3% | 17.8% | 14.0% | 8.1% | 3.4% | -5.2% | -3.7% | -6.5% | 1092.8% | 2161.7% |
| 16 | 75,000 | 20.7% | 19.6% | 16.8% | 12.1% | 7.8% | -1.7% | -1.6% | -5.0% | 736.5% | 1449.1% |
| 17 | 100,000 | 21.5% | 20.6% | 18.4% | 14.5% | 10.7% | 1.8% | 0.6% | -3.7% | 558.3% | 1092.8% |
| 18 | 125,000 | 22.0% | 21.2% | 19.4% | 16.0% | 12.7% | 4.4% | 2.9% | -2.6% | 451.4% | 879.0% |
| 19 | 150,000 | 22.3% | 21.6% | 20.1% | 17.1% | 14.1% | 6.5% | 4.7% | -1.2% | 380.1% | 736.5% |
| 20 | 175,000 | 22.5% | 21.9% | 20.6% | 18.0% | 15.3% | 8.2% | 6.3% | 0.2% | 329.2% | 634.6% |
| 21 | 200,000 | 22.6% | 22.2% | 21.0% | 18.6% | 16.2% | 9.6% | 7.6% | 1.4% | 291.1% | 558.3% |
| 22 | 250,000 | 22.9% | 22.5% | 21.5% | 19.6% | 17.5% | 11.7% | 9.7% | 3.5% | 237.6% | 451.4% |
| 23 | 500,000 | 23.4% | 23.2% | 22.7% | 21.6% | 20.4% | 16.9% | 15.3% | 10.1% | 130.7% | 237.6% |
| 24 | 1,000,000 | 23.6% | 23.5% | 23.2% | 22.7% | 22.1% | 20.1% | 19.1% | 15.5% | 77.3% | 130.7% |
| 25 | 2,000,000 | 23.7% | 23.7% | 23.5% | 23.3% | 22.9% | 21.9% | 21.3% | 19.2% | 50.6% | 77.3% |
| 26 | 3,000,000 | 23.8% | 23.7% | 23.6% | 23.5% | 23.2% | 22.5% | 22.1% | 20.6% | 41.7% | 59.5% |
| 27 | 4,000,000 | 23.8% | 23.8% | 23.7% | 23.5% | 23.4% | 22.8% | 22.5% | 21.4% | 37.2% | 50.6% |
| 28 | 5,000,000 | 23.8% | 23.8% | 23.7% | 23.6% | 23.5% | 23.0% | 22.8% | 21.8% | 34.5% | 45.2% |
| 29 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 31 | AVG. NO. OF CUST: | 0 | 0 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| 32 | | | | | | | | | | | |
| 33 | AVG. USE (GAL.): | N/A | N/A | 70,291 | 500 | 56,808 | N/A | N/A | N/A | N/A | N/A |
| 34 | MONTHLY BILL: | N/A | N/A | 16.4% | -9.8% | 4.8% | N/A | N/A | N/A | N/A | N/A |
| 35 | | | | | | | | | | | |
| 36 | MEDIAN USE (GAL.) : | N/A | N/A | 100,714 | N/A | 100,286 | N/A | N/A | N/A | N/A | N/A |
| 37 | MONTHLY BILL: | N/A | N/A | 18.4% | N/A | 10.7% | N/A | N/A | N/A | N/A | N/A |

GOODMAN WATER COMPANY –
TJC SURREBUTTAL CONSTRUCTION-STANDPIPE RATE DESIGN SCHEDULE

DOCKET NO. W-02500A-10-0382

GOODMAN WATER COMPANY - SURREBUTTAL CONSTRUCTION / STANDPIPE RATE DESIGN
TEST YEAR ENDED DECEMBER 31, 2009
RATE DATA INPUT

DOCKET NO. W-02500A-10-0382
SCHEDULE TJC RD-1

| PRESENT RATES | [1] GENERAL SERVICE 5/8- INCH | [2] GENERAL SERVICE 3/4 - INCH | [3] GENERAL SERVICE 1 - INCH | [4] GENERAL SERVICE 1 1/2 - INCH | [5] GENERAL SERVICE 2 - INCH | [6] GENERAL SERVICE 3 - INCH | [7] GENERAL SERVICE 4 - INCH | [8] GENERAL SERVICE 6 - INCH | [9] GENERAL SERVICE 8 - INCH | [10] GENERAL SERVICE 10 - INCH |
|---|---|---|---|---|---|---|---|---|---|---|
| Basic Charge: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tier One Rate: | 7.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tier Two Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tier Three Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tier Four Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tier Five Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tier Six Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Gallons in Minimum: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier One Upper Limit: | 999,999,999,999,999,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Two Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Three Upper Limit: | 0 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 |
| Tier Four Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Five Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Six Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Number of Tiers: | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| COMPANY PROPOSED RATES | [1] GENERAL SERVICE 5/8- INCH | [2] GENERAL SERVICE 3/4 - INCH | [3] GENERAL SERVICE 1 - INCH | [4] GENERAL SERVICE 1 1/2 - INCH | [5] GENERAL SERVICE 2 - INCH | [6] GENERAL SERVICE 3 - INCH | [7] GENERAL SERVICE 4 - INCH | [8] GENERAL SERVICE 6 - INCH | [9] GENERAL SERVICE 8 - INCH | [10] GENERAL SERVICE 10 - INCH |
|---|---|---|---|---|---|---|---|---|---|---|
| Basic Charge: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tier One Rate: | 13.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Incremental Tier Two Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Incremental Tier Three Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Incremental Tier Four Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Incremental Tier Five Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Incremental Tier Six Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Gallons in Minimum: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier One Upper Limit: | 999,999,999,999,999,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Two Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Three Upper Limit: | 0 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 |
| Tier Four Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Five Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Six Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Number of Tiers: | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| RUCO RECOMMENDED RATES | [1] GENERAL SERVICE 5/8- INCH | [2] GENERAL SERVICE 3/4 - INCH | [3] GENERAL SERVICE 1 - INCH | [4] GENERAL SERVICE 1 1/2 - INCH | [5] GENERAL SERVICE 2 - INCH | [6] GENERAL SERVICE 3 - INCH | [7] GENERAL SERVICE 4 - INCH | [8] GENERAL SERVICE 6 - INCH | [9] GENERAL SERVICE 8 - INCH | [10] GENERAL SERVICE 10 - INCH |
|---|---|---|---|---|---|---|---|---|---|---|
| Basic Charge: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tier One Rate: | 8.80 | 8.80 | 8.80 | 8.80 | 8.80 | 8.80 | 8.80 | 8.80 | 8.80 | 8.80 |
| Incremental Tier Two Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Incremental Tier Three Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Incremental Tier Four Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Incremental Tier Five Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Incremental Tier Six Rate: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Gallons in Minimum: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier One Upper Limit: | 999,999,999,999,999,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Two Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Three Upper Limit: | 0 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 | 999,999,999,999,999,000 |
| Tier Four Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Five Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tier Six Upper Limit: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Number of Tiers: | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

**TABLE OF CONTENTS TO TJC SURREBUTTAL SCHEDULES**


| SCH. NO. | PAGE NO. | TITLE |
|---|---|---|
| TJC-1 | 1 & 2 | REVENUE REQUIREMENT |
| TJC-2 | 1 | SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS |
| TJC-3 | 1 | ORIGINAL COST RATE BASE ADJUSTMENTS |
| TJC-4 | 1 - 5 | RATE BASE ADJUSTMENT NO. 1 - TEST YEAR END PLANT AND ACCUMULATED DEPRECIATION |
| TJC-5 | 1 | RATE BASE ADJUSTMENT NO. 2 - EXCESS CAPACITY |
| TJC-6 | 1 & 2 | RATE BASE ADJUSTMENT NO. 3 - ADVANCES IN AID OF CONSTRUCTION ("AIAC") |
| TJC-7 | 1 & 2 | RATE BASE ADJUSTMENT NO. 4 - ACCUMULATED DEFERRED INCOME TAXES |
| TJC-8 | 1 | SUMMARY OF OPERATING INCOME |
| TJC-9 | 1 | OPERATING INCOME ADJUSTMENTS |
| TJC-10 | 1 | OPERATING INCOME ADJUSTMENT NO. 1 - TEST YEAR DEPRECIATION EXPENSE |
| TJC-11 | 1 | OPERATING INCOME ADJUSTMENT NO. 2 - PROPERTY TAX EXPENSE |
| TESTIMONY | | OPERATING INCOME ADJUSTMENT NO. 3 - REVENUE & EXPENSE ANNUALIZATION |
| TJC-12 | 1 | OPERATING INCOME ADJUSTMENT NO. 4 - SALARIES & WAGE EXPENSE |
| TJC-13 | 1 | OPERATING INCOME ADJUSTMENT NO. 5 - CONTRACTUAL SERVICES EXPENSE |
| TESTIMONY | 1 | OPERATING INCOME ADJUSTMENT NO. 6 - WATER TESTING EXPENSE |
| TJC-14 | 1 | OPERATING INCOME ADJUSTMENT NO. 7 - INCOME TAX EXPENSE |
| TJC-15 | 1 | COST OF CAPITAL |

**REVENUE REQUIREMENT**

| LINE NO. | DESCRIPTION | (A) COMPANY OCRB/FVRB COST | (B) RUCO OCRB/FVRB COST |
|---|---|---|---|
| 1 | Fair Value Rate Base | $ 2,402,221 | $ 1,755,118 |
| 2 | Adjusted Operating Income (Loss) | 73,883 | 131,842 |
| 3 | Current Rate Of Return (L2 / L1) | 3.08% | 7.51% |
| 4 | Required Operating Income (L5 X L1) | $ 253,194 | $ 137,790 |
| 5 | Required Rate Of Return On Fair Value Rate Base | 10.54% | 7.85% |
| 6 | Operating Income Deficiency (L4 - L2) | $ 179,311 | $ 5,948 |
| 7 | Gross Revenue Conversion Factor (RLM-1, Pg 2) | 1.6254 | 1.4653 |
| 8 | Increase In Gross Revenue Requirement (L7 X L6) | $ 291,454 | $ 8,715 |
| 9 | Adjusted Test Year Revenue | 572,751 | 594,459 |
| 10 | Proposed Annual Revenue (L8 + L9) | 864,204 | 603,174 |
| 11 | Required Percentage Increase In Revenue (L8 / L9) | 50.89% | 1.47% |
| 12 | Rate Of Return On Common Equity | 11.00% | 9.00% |

References:
Column (A): Company Schedules A-1, B-1, and C-1
Column (B): RUCO Schedule TJC-1, page 2, TJC-2, TJC-8, and TJC-19

**REVENUE REQUIREMENT - CONT'D**
**GROSS REVENUE CONVERSION FACTOR**

| LINE NO. | DESCRIPTION | (A) | (B) | (C) | (D) |
|---|---|---|---|---|---|
| | CALCULATION OF GROSS REVENUE CONVERSION FACTOR: | | | | |
| 1 | Revenue | 1.0000 | | | |
| 2 | Proposed Bad Debt Expense (Per Co. Workpapers) | - | | | |
| 4 | Subtotal (L1 thru L2) | 1.0000 | | | |
| 5 | Combined Federal And State Tax Rate (L13) | 0.3175 | | | |
| 6 | Subtotal (L4 - L5) | 0.6825 | | | |
| 7 | **Revenue Conversion Factor** (L1 / L6) | **1.4653** | | | |
| | CALCULATION OF EFFECTIVE TAX RATE: | | | | |
| 8 | Operating Income Before Taxes (Arizona Taxable Income) | 100.0000% | | | |
| 9 | Arizona State Income Tax Rate | 6.9680% | | | |
| 10 | Federal Taxable Income (Col. (D), L37) | 93.0320% | | | |
| 11 | Applicable Federal Income Tax Rate (Col. (D), L34) | 25.9051% | | | |
| 12 | Effective Federal Income Tax Rate (L10 X L11) | 24.1000% | | | |
| 13 | Combined Federal And State Income Tax Rate (L9 + L12) | 31.0680% | | | |
| | CALCULATION OF EFFECTIVE PRPERTY TAX FACTOR: | | | | |
| | Unity | 100.0000% | | | |
| | Combined Federal and State Tax Rate | 31.0680% | | | |
| | 1 Minus Combined Income Tax Rate | 68.9320% | | | |
| | Property Tax Factor | 0.009941067 | | | |
| | Effective Property Tax Factor | 0.006852576 | | | |
| | Combined Federal, State and Property Tax RateTax Rate | 31.7533% | | | |
| 14 | RUCO Required Operating Income (Sch. TJC-1, Col. (B), L4) | $ 137,790 | | | |
| 15 | RUCO Adj'd T.Y. Oper'g Inc. (Loss) (Sch. TJC-1, Col. (B), L2) | 131,842 | | | |
| 16 | Required Increase In Operating Income (L14 - L15) | | $ 5,948 | | |
| 17 | Income Taxes On Recommended Revenue (Col. (D), L34) | $ 42,716 | | | |
| 18 | Income Taxes On Test Year Revenue (Col. (D), L35) | 40,035 | | | |
| 19 | Required Increase In Revenue To Provide For Income Taxes (L17 - L18) | | 2,681 | | |
| | Property Tax with Recommended Revenue | $ 17,815 | | | |
| | Propertry Tax on TestYear Revenue | 17,729 | | | |
| | Increase in Property Tax Due to Increase in Revenue | | $ 87 | | |
| 20 | Total Required Increase In Revenue (L16 + L19) | | $ 8,715 | | |
| | RUCO's CALCULATION OF INCOME TAX | | | RUCO Recommended | |
| 21 | RUCO Proposed Revenue (Sch. TJC-1, Col. (B), L10) | | | $ 603,174 | |
| | **Less:** | | | | |
| 22 | Operating Expense Excluding Income Tax (TJC-8, Col. (E), L23 - L22) | | | 422,668 | |
| 23 | Synchronized Interest (Col. (C), L40) | | | 43,013 | |
| 24 | Arizona Taxable Income (L21 - L22 - L23) | | | $ 137,493 | |
| 25 | Arizona State Income Tax Rate | | | 6.9680% | |
| 26 | Arizona Income Tax (L24 X L25) | | | | $ 9,580 |
| 27 | Fed. Taxable Income (L24 - L26) | | | $ 127,912 | |
| 28 | Fed. Tax On 1st Inc. Bracket ($1 - $50,000) @ 15% | | | $ 7,500 | |
| 29 | Fed. Tax On 2nd Inc. Bracket ($50,001 - $75,000) @ 25% | | | 6,250 | |
| 30 | Fed. Tax On 3rd Inc. Bracket ($75,001 - $100,000) @ 34% | | | 8,500 | |
| 31 | Fed. Tax On 4th Inc. Bracket ($100,001 - $335,000) @ 39% | | | 10,886 | |
| 32 | Fed. Tax On 5th Inc. Bracket ($335,001 - $10M) @ 34% | | | - | |
| 33 | Total Federal Income Tax (L28 + L29 + L30 + L31 + L32) | | | | $ 33,136 |
| 34 | Combined Federal And State Income Tax (L26 + L33) | | | | $ 42,716 |
| 35 | RUCO Adj'd Test Year Combined Federal and State Income Tax (TJC-8, Col. (C), L22) | | | | $ 40,035 |
| 36 | RUCO Proposed Income Tax Adjustment (L34 - L35) (See TJC-8, Col. (D), L22) | | | | $ 2,681 |
| 37 | Applicable Federal Income Tax Rate (Col. (D), L33 / Col. (C), L27) | | | | 25.91% |
| | CALCULATION OF INTEREST SYNCHRONIZATION: | | | | |
| 38 | Rate Base (Sch. TJC-1, Col. (B), L1) | | | $ 1,755,118 | |
| 39 | Weighted Avg. Cost Of Debt (Sch. TJC-17, Col. (C), L1) | | | 2.45% | |
| 40 | Synchronized Interest (L38 X L39) | | | $ 43,013 | |

**SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS**

| LINE NO. | DESCRIPTION | (A) COMPANY AS FILED OCRB/FVRB | (B) RUCO ADJUSTMENTS | (C) RUCO AS ADJUSTED OCRB/FVRB |
|---|---|---|---|---|
| 1 | Gross Utility Plant In Service | $ 5,453,761 | $ (1,360,580) | $ 4,093,181 |
| 2 | Accumulated Depreciation | (731,205) | 266,039 | (465,165) |
| 3 | Rounding | (1) | - | (1) |
| 4 | Net Utility Plant In Service (L1 + L2 + L3) | $ 4,722,556 | $ (1,094,541) | $ 3,628,015 |
| | Less: | | | |
| 5 | Advances In Aid Of Const. | $ (2,101,905) | $ 497,983 | $ (1,603,922) |
| 6 | Contribution In Aid Of Const. | $ - | $ - | $ - |
| 7 | Accumulated Amortization Of CIAC | - | - | - |
| 8 | NET CIAC (L6 + L7) | $ - | $ - | $ - |
| 9 | Customer Meter Deposits | $ (83,087) | $ - | $ (83,087) |
| 10 | Customer Hydrant Meter Deposits | $ - | $ - | $ - |
| 11 | Accumulated Deferred Income Taxes | $ (135,342) | $ (50,545) | $ (185,888) |
| 12 | Unamortized Finance Charges | $ - | $ - | $ - |
| 13 | Deferred Regulatory Assets | $ - | $ - | $ - |
| 14 | Allowance For Working Capital | $ - | $ - | $ - |
| 15 | TOTAL RATE BASE (Sum L's 4, 5, 8, 9 Thru 14) | $ 2,402,221 | $ (647,103) | $ 1,755,118 |

References:

Column (A): Company Schedule B-1, Page 1 And Workpapers Schedule E-1
Column (B): TJC-3, Columns (B) Thru (G)
Column (C): Column (A) + Column (B)

Goodman Water Company
Docket No. W-02500A-10-0382
Test Year Ended December 31, 2009

Schedule TJC-3
Surrebuttal Schedules


**ORIGINAL COST RATE BASE ADJUSTMENTS**

| LINE NO. | DESCRIPTION | (A) COMPANY AS FILED OCRB/FVRB | (B) ADJ # 1 TEST YR PLT & ACC DEP | (C) ADJ # 2 EXCESS CAPACITY | (D) ADJ # 3 AIAC | (E) ADJ # 4 DEFERRED INCOME TAX | (F) INTENT'NLY LEFT BLANK | (G) INTENT'NLY LEFT BLANK | (H) RUCO ADJ'TED OCRB/FVRB |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Gross Utility Plant In Service | $ 5,453,761 | $ - | $ (1,360,580) | $ - | $ - | $ - | $ - | $ 4,093,181 |
| 2 | Accumulated Depreciation | (731,205) | (3,268) | 269,307 | - | - | - | - | (465,165) |
| 3 | Rounding | (1) | | | | | | | (1) |
| 4 | Net Utility Plant In Service (L1 + L2 + L3) | $ 4,722,556 | $ (3,268) | $ (1,091,273) | $ - | $ - | $ - | $ - | $ 3,628,015 |
| | Less: | | | | | | | | |
| 5 | Advances In Aid Of Const. | $ (2,101,905) | $ - | $ - | $ 497,983 | $ - | $ - | $ - | $ (1,603,922) |
| 6 | Contribution In Aid Of Const. | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 7 | Accumulated Amortization Of CIAC | - | - | - | - | - | - | - | - |
| 8 | NET CIAC (L6 + L7) | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 9 | Customer Meter Deposits | $ (83,087) | $ - | $ - | $ - | $ - | $ - | $ - | $ (83,087) |
| 10 | Customer Hydrant Meter Deposits | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 11 | Accumulated Deferred Income Taxes | $ (135,342) | $ - | $ - | $ - | $ (50,545) | $ - | $ - | $ (185,888) |
| 12 | Unamortized Finance Charges | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 13 | Deferred Regulatory Assets | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 14 | Allowance For Working Capital | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 15 | TOTAL RATE BASE (Sum L's 4, 5, 8, 9 Thru 14) | $ 2,402,221 | $ (3,268) | $ (1,091,273) | $ 497,983 | $ (50,545) | $ - | $ - | $ 1,755,118 |

References:

Column (A): Company Schedule B-1, Page 1 And Workpapers Schedule E-1
Column (B): Adjustment No. 1 - RUCO Adjustment To Test-Year GPIS And Acc. Dep. (See Testimony and Schedule TJC-4(2009))
Column (C): Adjustment No. 2 - RUCO Adjustment for Excess Capacity (See Testimony)
Column (D): Adjustment No. 3 - RUCO Adjustment to AIAC for Excess Capacity (See Testimony)
Column (E): Adjustment No. 4 - RUCO Adjustment To Deferred Income Taxes for Excess Capacity (See Testimony and Schedule TJC-7)
Column (F): Intentionally Left Blank
Column (G): Intentionally Left Blank
Column (H): Sum Of Columns (A), (B), (C), (D), (E), (F), & (G)

**TEST YEAR PLANT SCHEDULES**
**PRIOR TEST YEAR ENDED SEPTEMBER 30, 2005**

| LINE NO. | ACCT. NO. | ACCOUNT NAME | (A) Deprec. Rate 10/1/2005 Thru 4/30/2007 | (B) Deprec. Rate After 4/30/2007 | (C) PER PRIOR DECISION NO. 69404 GROSS PLANT | (D) PER PRIOR DECISION NO. 69404 ACCUMULATED DEPRECIATION | (E) OCT - DEC 2005 PLANT ADDITIONS | (F) OCT - DEC 2005 PLANT ADJUSTMENTS | (G) OCT - DEC 2005 PLANT RETIREMENTS | (H) 2005 GROSS PLANT | (I) OCT - DEC 2005 DEPRE. EXPENSE | (J) DECEMBER 31 2005 ACCUMULATED DEPRECIATION BALANCE | (K) DECEMBER 31 2005 NET PLANT VALUE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 301 | Organization Cost | 0.00% | 0.00% | $ 104,528 | $ - | $ 1,500 | $ - | $ - | $ 106,028 | $ - | $ - | $ 106,028 |
| 2 | 302 | Franchise Cost | 0.00% | 0.00% | - | - | - | - | - | - | - | - | |
| 3 | 303 | Land and Land Rights | 0.00% | 0.00% | - | - | - | - | - | - | - | - | |
| 4 | 304 | Structures and Improvements | 2.50% | 3.33% | 9,788 | (306) | 1,276 | - | - | 11,064 | 65 | (372) | 10,692 |
| 5 | 305 | Collecting and Impounding Res. | 2.50% | 2.50% | - | - | - | - | - | - | - | - | |
| 6 | 306 | Lakes, Rivers, and Other Intakes | 2.50% | 2.50% | - | - | - | - | - | - | - | - | |
| 7 | 307 | Wells & Springs | 2.50% | 3.33% | 386,591 | (17,925) | - | - | - | 386,591 | 2,416 | (20,342) | 366,249 |
| 8 | 308 | Infiltration Galleries and Tunnels | 2.50% | 6.67% | - | - | - | - | - | - | - | - | |
| 9 | 309 | Supply Mains | 2.50% | 2.00% | - | - | - | - | - | - | - | - | |
| 10 | 310 | Power Generation Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - | - | |
| 11 | 311 | Electric Pumping Equipment | 2.50% | 12.50% | 686,993 | (35,041) | - | - | - | 686,993 | 4,294 | (39,335) | 647,657 |
| 12 | 320 | Water Treatment Equipment | 2.50% | 3.33% | 11,054 | (345) | - | - | - | 11,054 | 69 | (415) | 10,639 |
| 13 | 320.1 | Water Treatment Plant | 2.50% | 3.33% | | - | - | - | - | - | - | - | |
| 14 | 320.2 | Chemical Solution Feeders | 2.50% | 20.00% | - | - | - | - | - | - | - | - | |
| 15 | 330 | Dist. Reservoirs & Standpipe | 2.50% | 2.22% | 294,460 | (15,489) | - | - | - | 294,460 | 1,840 | (17,329) | 277,131 |
| 16 | 330.1 | Storage Tanks | 2.50% | 2.22% | - | - | - | - | - | - | - | - | |
| 17 | 330.2 | Pressure Tanks | 2.50% | 5.00% | - | - | - | - | - | - | - | - | |
| 18 | 331 | Trans. and Dist. Mains | 2.50% | 2.00% | 628,673 | (29,324) | 122,779 | - | - | 751,452 | 4,313 | (33,637) | 717,815 |
| 19 | 333 | Services | 2.50% | 3.33% | 129,274 | (5,679) | 17,266 | - | - | 146,540 | 862 | (6,541) | 139,999 |
| 20 | 334 | Meters | 2.50% | 8.33% | 67,497 | (2,310) | 270 | - | - | 67,767 | 423 | (2,733) | 65,034 |
| 21 | 335 | Hydrants | 2.50% | 2.00% | 46,955 | (2,090) | 36,220 | - | - | 83,175 | 407 | (2,497) | 80,678 |
| 22 | 336 | Backflow Prevention Devices | 2.50% | 6.67% | - | - | - | - | - | - | - | - | |
| 23 | 339 | Other Plant and Misc. Equip. | 2.50% | 6.67% | - | - | 152,473 | - | - | 152,473 | 476 | (476) | 151,997 |
| 24 | 340 | Office Furniture and Fixtures | 2.50% | 6.67% | - | - | - | - | - | - | - | - | |
| 25 | 340.1 | Computers and Software | 2.50% | 20.00% | - | - | - | - | - | - | - | - | |
| 26 | 341 | Transportation Equipment | 2.50% | 20.00% | - | - | - | - | - | - | - | - | |
| 27 | 342 | Stores Equipment | 2.50% | 4.00% | - | - | - | - | - | - | - | - | |
| 28 | 343 | Tools and Work Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - | - | |
| 29 | 344 | Laboratory Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - | - | |
| 30 | 345 | Power Operated Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - | - | |
| 31 | 346 | Communications Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - | - | |
| 32 | 347 | Miscellaneous Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - | - | |
| 33 | 348 | Other Tangible Plant | 2.50% | 10.00% | - | - | - | - | - | - | - | - | |
| 34 | | Rounding | | | 2 | - | - | - | - | 2 | - | - | |
| 35 | **RUCO TOTAL WATER PLANT** | | | | $ 2,365,813 | $ (108,511) | $ 331,783 | $ - | $ - | $ 2,697,596 | $ 15,165 | $ (123,676) | $ 2,573,918 |
| 37 | Per Company Work Papers | | | | $ 2,365,813 | $ (108,509) | $ 331,783 | $ - | $ - | $ 2,697,594 | $ 15,165 | $ (123,674) | $ 2,573,920 |
| 38 | RUCO Increase/Decrease to GUPIS & Accum. Depre. | | | | $ - | $ (2) | $ - | $ - | $ - | $ 2 | $ 0 | $ (2) | $ (2) |

References:

Columns (A), (B), (C), & (D): Per Decision No. 69404
Columns (E), (F), & (G): Company B-2 Schedules and Plant Additions' Workpapers
Column (H): Column (C) + Column (E), (F), & (G)
Column (I): RUCO's Depreciation Expense Formula
Column (J): Column (D) + Column (I)
Column (K): Column (H) + Column (J)

**TEST YEAR PLANT SCHEDULES - CONT'D**
**YEAR ENDED DECEMBER 31, 2006**

| LINE NO. | ACCT. NO. | ACCOUNT NAME | (A) Deprec. Rate 10/1/2005 Thru 4/30/2007 | (B) Deprec. Rate After 4/30/2007 | (C) 2006 PLANT ADDITIONS | (D) 2006 PLANT ADJUSTMENTS | (E) 2006 PLANT RETIREMENTS | (F) 2006 GROSS PLANT | (G) 2006 RUCO CALCULATED ANNUAL DEP. | (H) DECEMBER 31 2006 ACCUMULATED DEPRECIATION BALANCE | (I) DECEMBER 31 2006 NET PLANT VALUE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 301 | Organization Cost | 0.00% | 0.00% | $ 4,920 | $ - | $ - | $ 110,948 | $ - | $ - | $ 110,948 |
| 2 | 302 | Franchise Cost | 0.00% | 0.00% | - | - | - | - | - | - | - |
| 3 | 303 | Land and Land Rights | 0.00% | 0.00% | - | - | - | - | - | - | - |
| 4 | 304 | Structures and Improvements | 2.50% | 3.33% | - | - | - | 11,064 | 277 | (648) | 10,415 |
| 5 | 305 | Collecting and Impounding Res. | 2.50% | 2.50% | - | - | - | - | - | - | - |
| 6 | 306 | Lakes, Rivers, and Other Intakes | 2.50% | 2.50% | - | - | - | - | - | - | - |
| 7 | 307 | Wells & Springs | 2.50% | 3.33% | - | - | - | 386,591 | 9,665 | (30,006) | 356,584 |
| 8 | 308 | Infiltration Galleries and Tunnels | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 9 | 309 | Supply Mains | 2.50% | 2.00% | - | - | - | - | - | - | - |
| 10 | 310 | Power Generation Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 11 | 311 | Electric Pumping Equipmemt | 2.50% | 12.50% | - | - | - | 686,993 | 17,175 | (56,510) | 630,482 |
| 12 | 320 | Water Treatment Equipment | 2.50% | 3.33% | 266 | - | - | 11,320 | 280 | (694) | 10,626 |
| 13 | 320.1 | Water Treatment Plant | 2.50% | 3.33% | - | - | - | - | - | - | - |
| 14 | 320.2 | Chemical Solution Feeders | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 15 | 330 | Dist. Reservoirs & Standpipe | 2.50% | 2.22% | - | - | - | 294,460 | 7,362 | (24,691) | 269,769 |
| 16 | 330.1 | Storage Tanks | 2.50% | 2.22% | - | - | - | - | - | - | - |
| 17 | 330.2 | Pressure Tanks | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 18 | 331 | Trans. and Dist. Mains | 2.50% | 2.00% | - | - | - | 751,452 | 18,786 | (52,423) | 699,028 |
| 19 | 333 | Services | 2.50% | 3.33% | 3 | - | - | 146,543 | 3,664 | (10,204) | 136,338 |
| 20 | 334 | Meters | 2.50% | 8.33% | 270 | - | - | 68,037 | 1,698 | (4,430) | 63,607 |
| 21 | 335 | Hydrants | 2.50% | 2.00% | 5 | - | - | 83,180 | 2,079 | (4,576) | 78,604 |
| 22 | 336 | Backflow Prevention Devices | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 23 | 339 | Other Plant and Misc. Equip. | 2.50% | 6.67% | 13,245 | - | - | 165,718 | 3,977 | (4,454) | 161,264 |
| 24 | 340 | Office Furniture and Fixtures | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 25 | 340.1 | Computers and Software | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 26 | 341 | Transportation Equipment | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 27 | 342 | Stores Equipment | 2.50% | 4.00% | - | - | - | - | - | - | - |
| 28 | 343 | Tools and Work Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 29 | 344 | Laboratory Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 30 | 345 | Power Operated Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 31 | 346 | Communications Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 32 | 347 | Miscellaneous Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 33 | 348 | Other Tangible Plant | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 34 | | Rounding | | | - | - | - | 2 | - | - | - |
| 0 | | | | | | | | | | | |
| 35 | **RUCO TOTAL WATER PLANT** | | | | $ 18,709 | $ - | $ - | $ 2,716,305 | $ 64,962 | $ (188,638) | $ 2,527,665 |
| 37 | Per Company Work Papers | | | | $ 18,709 | $ - | $ - | $ 2,716,303 | $ 64,962 | $ (188,636) | $ 2,527,667 |
| 38 | RUCO Increase/Decrease to GUPIS & Accum. Depre. | | | | $ - | $ - | $ - | $ 2 | $ (0) | $ (2) | $ (2) |

**TEST YEAR PLANT SCHEDULES - CONT'D**
**YEAR ENDED DECEMBER 31, 2007**

| LINE NO. | ACCT. NO. | ACCOUNT NAME | (A) Deprec. Rate 10/1/2005 Thru 4/30/2007 | (B) Deprec. Rate After 4/30/2007 | (C) 2007 PLANT ADDITIONS | (D) 2007 PLANT ADJUSTMENTS | (E) 2007 PLANT RETIREMENTS | (F) 2007 GROSS PLANT | (G) 2007 RUCO CALCULATED ANNUAL DEP. | (H) DECEMBER 31 2007 ACCUMULATED DEPRECIATION BALANCE | (I) DECEMBER 31 2007 NET PLANT VALUE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 301 | Organization Cost | 0.00% | 0.00% | $ 6,539 | $ - | $ - | $ 117,487 | $ - | $ - | $ 117,487 |
| 2 | 302 | Franchise Cost | 0.00% | 0.00% | - | - | - | - | - | - | - |
| 3 | 303 | Land and Land Rights | 0.00% | 0.00% | - | - | - | - | - | - | - |
| 4 | 304 | Structures and Improvements | 2.50% | 3.33% | - | - | - | 11,064 | 338 | (986) | 10,077 |
| 5 | 305 | Collecting and Impounding Res. | 2.50% | 2.50% | - | - | - | - | - | - | - |
| 6 | 306 | Lakes, Rivers, and Other Intakes | 2.50% | 2.50% | - | - | - | - | - | - | - |
| 7 | 307 | Wells & Springs | 2.50% | 3.33% | - | - | - | 386,591 | 11,804 | (41,810) | 344,780 |
| 8 | 308 | Infiltration Galleries and Tunnels | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 9 | 309 | Supply Mains | 2.50% | 2.00% | - | - | - | - | - | - | - |
| 10 | 310 | Power Generation Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 11 | 311 | Electric Pumping Equipmemt | 2.50% | 12.50% | 2,963 | - | - | 689,956 | 63,110 | (119,620) | 570,335 |
| 12 | 320 | Water Treatment Equipment | 2.50% | 3.33% | 4,628 | - | - | 15,948 | 416 | (1,111) | 14,837 |
| 13 | 320.1 | Water Treatment Plant | 2.50% | 3.33% | - | - | - | - | - | - | - |
| 14 | 320.2 | Chemical Solution Feeders | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 15 | 330 | Dist. Reservoirs & Standpipe | 2.50% | 2.22% | 72,350 | - | - | 366,810 | 7,649 | (32,340) | 334,470 |
| 16 | 330.1 | Storage Tanks | 2.50% | 2.22% | - | - | - | - | - | - | - |
| 17 | 330.2 | Pressure Tanks | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 18 | 331 | Trans. and Dist. Mains | 2.50% | 2.00% | 685,094 | - | - | 1,436,546 | 23,703 | (76,126) | 1,360,419 |
| 19 | 333 | Services | 2.50% | 3.33% | 143,352 | - | - | 289,895 | 6,663 | (16,867) | 273,027 |
| 20 | 334 | Meters | 2.50% | 8.33% | 18,359 | - | (6,580) | 79,816 | 4,721 | (2,572) | 77,244 |
| 21 | 335 | Hydrants | 2.50% | 2.00% | 43,205 | - | - | 126,385 | 2,270 | (6,846) | 119,539 |
| 22 | 336 | Backflow Prevention Devices | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 23 | 339 | Other Plant and Misc. Equip. | 2.50% | 6.67% | 759 | - | - | 166,477 | 8,770 | (13,224) | 153,253 |
| 24 | 340 | Office Furniture and Fixtures | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 25 | 340.1 | Computers and Software | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 26 | 341 | Transportation Equipment | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 27 | 342 | Stores Equipment | 2.50% | 4.00% | - | - | - | - | - | - | - |
| 28 | 343 | Tools and Work Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 29 | 344 | Laboratory Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 30 | 345 | Power Operated Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 31 | 346 | Communications Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 32 | 347 | Miscellaneous Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 33 | 348 | Other Tangible Plant | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 34 | | Rounding | | | - | - | - | 2 | - | - | 2 |
| 0 | | | | | | | | | | | |
| 35 | **RUCO TOTAL WATER PLANT** | | | | $ 977,249 | $ - | $ (6,580) | $ 3,686,974 | $ 129,445 | $ (311,502) | $ 3,375,472 |
| 37 | Per Company Work Papers | | | | $ 977,249 | $ - | $ (6,580) | $ 3,686,972 | $ 126,179 | $ (308,235) | $ 3,378,737 |
| 38 | RUCO Increase/Decrease to GUPIS & Accum. Depre. | | | | $ - | $ - | $ - | $ 2 | $ 3,266 | $ (3,267) | $ (3,265) |

**TEST YEAR PLANT SCHEDULES - CONT'D**
**YEAR ENDED DECEMBER 31, 2008**

| LINE NO. | ACCT. NO. | ACCOUNT NAME | (A) Deprec. Rate 10/1/2005 Thru 4/30/2007 | (B) Deprec. Rate After 4/30/2007 | (C) 2008 PLANT ADDITIONS | (D) 2008 PLANT ADJUSTMENTS | (E) 2008 PLANT RETIREMENTS | (F) 2008 GROSS PLANT | (G) 2008 RUCO CALCULATED ANNUAL DEP. | (H) DECEMBER 31 2008 ACCUMULATED DEPRECIATION BALANCE | (I) DECEMBER 31 2008 NET PLANT VALUE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 301 | Organization Cost | 0.00% | 0.00% | $ 9,616 | $ - | $ - | $ 127,103 | $ - | $ - | $ 127,103 |
| 2 | 302 | Franchise Cost | 0.00% | 0.00% | - | - | - | - | - | - | - |
| 3 | 303 | Land and Land Rights | 0.00% | 0.00% | 494,159 | - | - | 494,159 | - | - | 494,159 |
| 4 | 304 | *Structures and Improvements* | 2.50% | 3.33% | 171,506 | - | - | 182,570 | 3,224 | (4,210) | 178,359 |
| 5 | 305 | Collecting and Impounding Res. | 2.50% | 2.50% | - | - | - | - | - | - | - |
| 6 | 306 | Lakes, Rivers, and Other Intakes | 2.50% | 2.50% | - | - | - | - | - | - | - |
| 7 | 307 | Wells & Springs | 2.50% | 3.33% | - | - | - | 386,591 | 12,873 | (54,684) | 331,907 |
| 8 | 308 | Infiltration Galleries and Tunnels | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 9 | 309 | Supply Mains | 2.50% | 2.00% | - | - | - | - | - | - | - |
| 10 | 310 | Power Generation Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 11 | 311 | Electric Pumping Equipmemt | 2.50% | 12.50% | 275,541 | - | - | 965,497 | 103,466 | (223,086) | 742,411 |
| 12 | 320 | Water Treatment Equipment | 2.50% | 3.33% | - | - | - | 15,948 | 531 | (1,642) | 14,306 |
| 13 | 320.1 | Water Treatment Plant | 2.50% | 3.33% | - | - | - | - | - | - | - |
| 14 | 320.2 | Chemical Solution Feeders | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 15 | 330 | Dist. Reservoirs & Standpipe | 2.50% | 2.22% | 470,081 | - | - | 836,891 | 13,361 | (45,701) | 791,190 |
| 16 | 330.1 | Storage Tanks | 2.50% | 2.22% | - | - | - | - | - | - | - |
| 17 | 330.2 | Pressure Tanks | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 18 | 331 | Trans. and Dist. Mains | 2.50% | 2.00% | 174,757 | - | - | 1,611,303 | 30,478 | (106,605) | 1,504,698 |
| 19 | 333 | Services | 2.50% | 3.33% | 97,051 | - | - | 386,946 | 11,269 | (28,137) | 358,809 |
| 20 | 334 | Meters | 2.50% | 8.33% | 9,299 | - | - | 89,115 | 7,036 | (9,608) | 79,507 |
| 21 | 335 | Hydrants | 2.50% | 2.00% | 35,352 | - | - | 161,737 | 2,881 | (9,728) | 152,009 |
| 22 | 336 | Backflow Prevention Devices | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 23 | 339 | Other Plant and Misc. Equip. | 2.50% | 6.67% | - | - | - | 166,477 | 11,104 | (24,328) | 142,149 |
| 24 | 340 | Office Furniture and Fixtures | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 25 | 340.1 | Computers and Software | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 26 | 341 | Transportation Equipment | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 27 | 342 | Stores Equipment | 2.50% | 4.00% | - | - | - | - | - | - | - |
| 28 | 343 | Tools and Work Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 29 | 344 | Laboratory Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 30 | 345 | Power Operated Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 31 | 346 | Communications Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 32 | 347 | Miscellaneous Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 33 | 348 | Other Tangible Plant | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 34 | | Rounding | | | - | - | - | 2 | - | - | - |
| 0 | | | | | | | | | | | |
| 35 | **RUCO TOTAL WATER PLANT** | | | | $ 1,737,362 | $ - | $ - | $5,424,336 | $ 196,224 | $ (507,727) | $ 4,916,607 |
| 37 | Per Company Work Papers | | | | $ 1,737,362 | $ - | $ - | $5,424,334 | $ 196,224 | $ (504,459) | $ 4,919,875 |
| 38 | RUCO Increase/Decrease to GUPIS & Accum. Depre. | | | | $ - | $ - | $ - | $ 2 | $ 0 | $ (3,268) | $ (3,268) |

**TEST YEAR PLANT SCHEDULES - CONT'D**
**TEST YEAR ENDED DECEMBER 31, 2009**

| LINE NO. | ACCT. NO. | ACCOUNT NAME | (A) Deprec. Rate 10/1/2005 Thru 4/30/2007 | (B) Deprec. Rate After 4/30/2007 | (C) 2009 PLANT ADDITIONS | (D) 2009 PLANT ADJUSTMENTS | (E) 2009 PLANT RETIREMENTS | (F) 2009 GROSS PLANT | (G) 2009 RUCO CALCULATED ANNUAL DEP. | (H) DECEMBER 31 2009 ACCUMULATED DEPRECIATION BALANCE | (I) DECEMBER 31 2009 NET PLANT VALUE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 301 | Organization Cost | 0.00% | 0.00% | $ - | $ - | $ - | $ 127,103 | $ - | $ - | $ 127,103 |
| 2 | 302 | Franchise Cost | 0.00% | 0.00% | - | - | - | - | - | - | - |
| 3 | 303 | Land and Land Rights | 0.00% | 0.00% | - | - | - | 494,159 | - | - | 494,159 |
| 4 | 304 | Structures and Improvements | 2.50% | 3.33% | - | - | - | 182,570 | 6,080 | (10,290) | 172,280 |
| 5 | 305 | Collecting and Impounding Res. | 2.50% | 2.50% | - | - | - | - | - | - | - |
| 6 | 306 | Lakes, Rivers, and Other Intakes | 2.50% | 2.50% | - | - | - | - | - | - | - |
| 7 | 307 | Wells & Springs | 2.50% | 3.33% | - | - | - | 386,591 | 12,873 | (67,557) | 319,033 |
| 8 | 308 | Infiltration Galleries and Tunnels | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 9 | 309 | Supply Mains | 2.50% | 2.00% | - | - | - | - | - | - | - |
| 10 | 310 | Power Generation Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 11 | 311 | Electric Pumping Equipmemt | 2.50% | 12.50% | 3,155 | - | - | 968,652 | 120,884 | (343,970) | 624,681 |
| 12 | 320 | Water Treatment Equipment | 2.50% | 3.33% | - | - | - | 15,948 | 531 | (2,173) | 13,775 |
| 13 | 320.1 | Water Treatment Plant | 2.50% | 3.33% | - | - | - | - | - | - | - |
| 14 | 320.2 | Chemical Solution Feeders | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 15 | 330 | Dist. Reservoirs & Standpipe | 2.50% | 2.22% | - | - | - | 836,891 | 18,579 | (64,280) | 772,611 |
| 16 | 330.1 | Storage Tanks | 2.50% | 2.22% | - | - | - | - | - | - | - |
| 17 | 330.2 | Pressure Tanks | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 18 | 331 | Trans. and Dist. Mains | 2.50% | 2.00% | 18 | - | - | 1,611,321 | 32,226 | (138,831) | 1,472,489 |
| 19 | 333 | Services | 2.50% | 3.33% | - | - | - | 386,946 | 12,885 | (41,022) | 345,923 |
| 20 | 334 | Meters | 2.50% | 8.33% | 5,148 | - | - | 94,263 | 7,638 | (17,245) | 77,018 |
| 21 | 335 | Hydrants | 2.50% | 2.00% | - | - | - | 161,737 | 3,235 | (12,962) | 148,775 |
| 22 | 336 | Backflow Prevention Devices | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 23 | 339 | Other Plant and Misc. Equip. | 2.50% | 6.67% | 21,105 | - | - | 187,582 | 11,808 | (36,136) | 151,446 |
| 24 | 340 | Office Furniture and Fixtures | 2.50% | 6.67% | - | - | - | - | - | - | - |
| 25 | 340.1 | Computers and Software | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 26 | 341 | Transportation Equipment | 2.50% | 20.00% | - | - | - | - | - | - | - |
| 27 | 342 | Stores Equipment | 2.50% | 4.00% | - | - | - | - | - | - | - |
| 28 | 343 | Tools and Work Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 29 | 344 | Laboratory Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 30 | 345 | Power Operated Equipment | 2.50% | 5.00% | - | - | - | - | - | - | - |
| 31 | 346 | Communications Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 32 | 347 | Miscellaneous Equipment | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 33 | 348 | Other Tangible Plant | 2.50% | 10.00% | - | - | - | - | - | - | - |
| 34 | | Rounding | | | - | 1 | - | 1 | - | - | - |
| 0 | | | | | | | | | | | |
| 35 | **RUCO TOTAL WATER PLANT** | | | | $ 29,426 | $ 1 | $ - | $ 5,453,761 | $ 226,739 | $ (734,466) | $ 4,719,294 |
| 37 | Per Company Work Papers | | | | $ 29,426 | $ - | $ - | $ 5,453,761 | $ 226,739 | $ (731,198) | $ 4,722,563 |
| 38 | RUCO Increase/Decrease to GUPIS & Accum. Depre. | | | | $ - | $ 1 | $ - | $ - | $ 0 | $ (3,268) | $ (3,269) |

References:
Columns (A) & (B): Per Decision No. 69404
Columns (C), (D), & (E): Company B-2 Schedules and Plant Additions' Workpapers
Column (F): Schedule TJC-4(2008), Column (F) + Column (C), (D), & (E)
Column (G): RUCO's Depreciation Expense Formula
Column (H): Schedule TJC-4(2008), Column (H) + Column (G)
Column (I): Column (F) + Column (H)

**RUCO's RATE BASE ADJUSTMENT NO. 2**
**WATER PLANT EXCESS CAPACITY ADJUSTMENT**

| LINE NO. | ACCT. NO. | ACCOUNT NAME | (A) PER PRIOR DECISION NO. 69404 COMPANY TOTAL PLANT BALANCE | (B) PER PRIOR DECISION NO. 69404 COMPANY ACCUM. DEPRE. BALANCE | (C) SINCE DECISION NO. 69404 COMPANY PLANT ADDITIONS | (D) SINCE DECISION NO. 69404 ADDITIONAL ACCUMULATED DEPRECIATION | (E) RUCO PLANT ADDITIONS USED & USEFUL FACTOR | TOTAL WATER PLANT PER RUCO | TOTAL ACCUM. DEPRE. PER RUCO |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 301 | Organization Cost | $ 104,528 | $ - | $ 22,575 | $ - | 45.67% | $ 114,837 | $ - |
| 2 | 302 | Franchise Cost | - | - | - | - | 100.00% | - | - |
| 3 | 303 | Land and Land Rights | - | - | 494,159 | - | 45.67% | 225,673 | - |
| 4 | 304 | Structures and Improvements | 9,788 | (306) | 172,782 | (9,979) | 45.67% | 88,694 | (4,864) |
| 5 | 305 | Collecting and Impounding Res. | - | - | - | - | 100.00% | - | - |
| 6 | 306 | Lakes, Rivers, and Other Intakes | - | - | - | - | 100.00% | - | - |
| 7 | 307 | Wells & Springs | 386,591 | (17,925) | - | (49,498) | 100.00% | 386,591 | (67,424) |
| 8 | 308 | Infiltration Galleries and Tunnels | - | - | - | - | 100.00% | - | - |
| 9 | 309 | Supply Mains | - | - | - | - | 100.00% | - | - |
| 10 | 310 | Power Generation Equipment | - | - | - | - | 100.00% | - | - |
| 11 | 311 | Electric Pumping Equipmemt | 686,993 | (35,041) | 281,659 | (306,060) | 45.67% | 815,621 | (174,814) |
| 12 | 320 | Water Treatment Equipment | 11,054 | (345) | 4,894 | (1,822) | 45.67% | 13,289 | (1,178) |
| 13 | 320.1 | Water Treatment Plant | - | - | - | - | 100.00% | - | - |
| 14 | 320.2 | Chemical Solution Feeders | - | - | - | - | 100.00% | - | - |
| 15 | 330 | Dist. Reservoirs & Standpipe | 294,460 | (15,489) | 542,431 | (48,829) | 64.15% | 642,435 | (46,813) |
| 16 | 330.1 | Storage Tanks | - | - | - | - | 100.00% | - | - |
| 17 | 330.2 | Pressure Tanks | - | - | - | - | 100.00% | - | - |
| 18 | 331 | Trans. and Dist. Mains | 628,673 | (29,324) | 982,648 | (109,735) | 45.67% | 1,077,430 | (79,438) |
| 19 | 333 | Services | 129,274 | (5,679) | 257,672 | (35,268) | 100.00% | 386,946 | (40,947) |
| 20 | 334 | Meters | 67,497 | (2,310) | 26,766 * | (14,756) | 100.00% | 94,263 | (17,066) |
| 21 | 335 | Hydrants | 46,955 | (2,090) | 114,782 | (10,894) | 100.00% | 161,737 | (12,984) |
| 22 | 336 | Backflow Prevention Devices | - | - | - | - | 100.00% | - | - |
| 23 | 339 | Other Plant and Misc. Equip. | - | - | 187,582 | (35,847) | 45.67% | 85,665 | (16,371) |
| 24 | 340 | Office Furniture and Fixtures | - | - | - | - | 100.00% | - | - |
| 25 | 340.1 | Computers and Software | - | - | - | - | 100.00% | - | - |
| 26 | 341 | Transportation Equipment | - | - | - | - | 100.00% | - | - |
| 27 | 342 | Stores Equipment | - | - | - | - | 100.00% | - | - |
| 28 | 343 | Tools and Work Equipment | - | - | - | - | 100.00% | - | - |
| 29 | 344 | Laboratory Equipment | - | - | - | - | 100.00% | - | - |
| 30 | 345 | *Power Operated Equipment* | - | - | - | - | 100.00% | - | - |
| 31 | 346 | Communications Equipment | - | - | - | - | 100.00% | - | - |
| 32 | 347 | Miscellaneous Equipment | - | - | - | - | 100.00% | - | - |
| 33 | 348 | Other Tangible Plant | - | - | - | - | 100.00% | - | - |
| 34 | | Rounding | 2 | 2 | (1) | - | | - | - |
| 35 | | **COMPANY TOTAL PLANT & ACCUM. DEPRE.** | $ 2,365,813 | $ (108,509) | $ 3,087,948 | $ (622,689) | | $ 4,093,181 | $ (461,898) |

| | | |
|---|---|---|
| 36 | RUCO Excess Capacity Plant Adjustment | $ (1,360,580) |
| 37 | RUCO Excess Capacity Accumulated Depreciation Adjustment | $ 269,307 |

**Note:**

| | | |
|---|---|---|
| 38 | RUCO's Used & Useful Factor (See RUCO Exhibit X) | 45.67% |
| 39 | RUCO's Used & Useful Factor for Distribution Reservoirs | 64.15% |

References:
Column (A): Company B-2 Schedule and RUCO Schedule TJC-4(2009)
Column (B): Company B-2 Schedule
Column (C): Company B-2 Schedules- Plant Additions less Retirements
Column (D): Company B-2 Schedule - Accumulated Depreciation
Column (C): RUCO's Excess Capacity Factor (L38) Above
Column(D): Column (A) x Column (N)
Column(E): Column (B) x Column (N)

**RUCO's RATE BASE ADJUSTMENT NO. 3**
**EXCESS CAPACITY ADJUSTMENT TO ADVANCES IN AID OF CONSTRUCTION ("AIAC")**

| LINE NO. | DESCRIPTION | (A) AMOUNT |
|---|---|---|
| 1 | AIAC Balance Per Prior Decision No. 69404 | $ 971,695 |
| 2 | AIAC Added Since Prior Decision No. 69404 | 1,130,210 |
| 3 | RUCO's Used and Useful AIAC Factor (See Sch. TJC-6, page 2 of 2) | 55.94% |
| 4 | AIAC Balance Per RUCO | $ 1,603,922 |
| 5 | RUCO's AIAC Adjustment | $ 497,983 |

**RUCO's RATE BASE ADJUSTMENT NO. 3**
**USED & USEFUL FACTOR FOR ADVANCES IN AID OF CONSTRUCTION ("AIAC")**

| Line No. | Plant Accounts | New Plant Additions | Percent to Total | RUCO Percentage Allowed | Weighted Average |
|---|---|---|---|---|---|
| | Organization Cost | $ 22,575 | 0.73% | 45.67% | 0.33% |
| | Franchise Cost | - | 0.00% | 45.67% | 0.00% |
| | Land and Land Rights | 494,159 | 16.00% | 45.67% | 7.31% |
| | Structures and Improvements | 172,782 | 5.60% | 45.67% | 2.56% |
| | Collecting and Impounding Res. | - | 0.00% | 45.67% | 0.00% |
| | Lakes, Rivers, and Other Intakes | - | 0.00% | 45.67% | 0.00% |
| | Wells & Springs | - | 0.00% | 45.67% | 0.00% |
| | Infiltration Galleries and Tunnels | - | 0.00% | 45.67% | 0.00% |
| | Supply Mains | - | 0.00% | 45.67% | 0.00% |
| | Power Generation Equipment | - | 0.00% | 45.67% | 0.00% |
| | Electric Pumping Equipmemt | 281,659 | 9.12% | 45.67% | 4.17% |
| | Water Treatment Equipment | 4,894 | 0.16% | 45.67% | 0.07% |
| | Water Treatment Plant | - | 0.00% | 45.67% | 0.00% |
| | Chemical Solution Feeders | - | 0.00% | 45.67% | 0.00% |
| | Dist. Reservoirs & Standpipe | 542,431 | 17.57% | 64.15% | 11.27% |
| | Storage Tanks | - | 0.00% | 45.67% | 0.00% |
| | Pressure Tanks | - | 0.00% | 45.67% | 0.00% |
| | Trans. and Dist. Mains | 982,648 | 31.82% | 45.67% | 14.53% |
| | Services | 257,672 | 8.34% | 100.00% | 8.34% |
| | Meters | 26,766 | 0.87% | 100.00% | 0.87% |
| | Hydrants | 114,782 | 3.72% | 100.00% | 3.72% |
| | Backflow Prevention Devices | - | 0.00% | 45.67% | 0.00% |
| | Other Plant and Misc. Equip. | 187,582 | 6.07% | 45.67% | 2.77% |
| | Office Furniture and Fixtures | - | 0.00% | 45.67% | 0.00% |
| | Computers and Software | - | 0.00% | 45.67% | 0.00% |
| | Transportation Equipment | - | 0.00% | 45.67% | 0.00% |
| | Stores Equipment | - | 0.00% | 45.67% | 0.00% |
| | Tools and Work Equipment | - | 0.00% | 45.67% | 0.00% |
| | Laboratory Equipment | - | 0.00% | 45.67% | 0.00% |
| | Power Operated Equipment | - | 0.00% | 45.67% | 0.00% |
| | Communications Equipment | - | 0.00% | 45.67% | 0.00% |
| | Miscellaneous Equipment | - | 0.00% | 45.67% | 0.00% |
| | Other Tangible Plant | - | 0.00% | 45.67% | 0.00% |
| | Total Plant Additions | $3,087,948 | 100.00% | | |
| | **RUCO Used and Useful AIAC Factor** | | | | **55.94%** |

**Accumulated Deferred Income Tax as of December 31, 2009**

| Line No. | | Adjusted Book Value | Tax Value | Probability of Realization of Future Tax Benefit | Deductible TD (Taxable TD) Expected to be Realized | Tax Rate[5] | Future Tax Asset Current | Future Tax Asset Non Current | Future Tax Liability Current | Future Tax Liability Non Current |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | Plant-in-Service | $ 4,093,181 [1] | | | | | | | | |
| 7 | Accum. Deprec. | (465,165) [1] | | | | | | | | |
| 8 | CIAC | (1,122,745) [3] | | | | | | | | |
| 9 | Fixed Assets | $ 2,505,271 | $ 1,438,680 [2] | 100.0% | $ (1,066,590) | 31.8% | | - | | (338,677) |
| 10 | AIAC | | 1,603,922 [4] | 30.0% | $ 481,177 [4] | 31.8% | | $ 152,789 | | |
| 11 | Tax Benefits from O.L. Carry Forward. | | | 100.0% | $ - | 31.8% | | $ - | | |
| 12 | | | | | | | $ - | $ 152,789 | $ - | $ (338,677) |
| 13 | | | | | | | | | | |
| 14 | ADIT Net Asset (Liability) per Surrebuttal | | | | Net Asset (Liability) | | $ (185,888) | | | |
| 15 | | | | | | | | | | |
| 16 | ADIT Asset (Liability) per Company | | | | | | $ (135,342) | | | |
| 17 | | | | | | | | | | |
| 18 | RUCO Adjustment to DIT | | | | | | $ 50,545 | | | |

Footnotes - See page 2 of 2

| Line No. | | | | |
|---|---|---|---|---|
| 1 | **1 Adjusted per B-2, page 2** | | | |
| 2 | **2 Computation of Net Tax Value at December 31, 2009** | | | |
| 3 | Based on 2009 Tax Depreciation report (December 31, 2009) | | | |
| 4 | Unadjusted Cost per 2009 Tax Depr. Report | $ 4,938,108 | | |
| 5 | Reconciling Items not on tax report: | | | |
| 6 | Land costs not on tax, on books (adjusted by RUCO 45.67% of $494,159) | 225,673 | | |
| 7 | Net Unadjusted Cost tax Basis | | | $ 5,163,781 |
| 8 | | | | |
| 9 | Basis Reduction/Additions | | | |
| 10 | Basis Reduction 2009 and Prior Years (from 2009 Tax Depr. Report) | $ (14,706) | | |
| 11 | Advanced or contributed plant with no depreciable basis listed on 2009 Tax Depr. Report (after RUCO AIAC adj) | (2,209,833) | | |
| 12 | Accumulated Depreciation 2008 and prior (2009 Tax Depr Report) | (339,352) | | |
| 13 | RUCO Adjustments to Plant-in-service (depreciatble only, net of RUCO land adjustment) | (1,261,570) | | |
| 14 | Tax Depr related to RUCO adjustment | 201,851 | | |
| 15 | 2009 Current Year Tax Depreciation | (101,491) | | - |
| 16 | Net Basis Reduction 2007 and Prior years | | | (3,725,101) |
| 17 | Net tax value of plant-in-service at December 31, 2008 | | | $ 1,438,680 |
| 18 | | | | |
| 19 | **3 CIAC (including impact of change to probability of realization)** | | | |
| 20 | | | | |
| 21 | Gross CIAC per B-2 | | $ - | |
| 22 | Less: Pre-1996 CIAC | | - | |
| 23 | A.A per B-2 | $ - | | |
| 24 | A.A on Pre-1996 CIAC | - | | |
| 25 | A.A. on Post 1996 CIAC | | - | |
| 26 | Net CIAC before unrealized AIAC | | | $ - |
| 27 | | | | |
| 28 | Unrealized AIAC Component | | | |
| 29 | Adjusted Net AIAC (see footnote 5 below) | | $ 1,603,922 | |
| 30 | Unrealized AIAC Component % (1-Realized AIAC Component) | | 70.0% | |
| 31 | | | | $ 1,122,745 |
| 32 | Total realizable CIAC | | | $ 1,122,745 |
| 33 | | | | |
| 34 | **4 AIAC (including impact of change in probability of realization)** | | | |
| 35 | AIAC per B-2 | | $ 1,603,922 | |
| 36 | Less: Pre-1996 AIAC included for book and tax purposes | | - | |
| 37 | Net AIAC before unrealized portion | | | $ 1,603,922 |
| 38 | Less: Unrealized AIAC (from Note 4, above) | | | $(1,122,745) |
| 39 | Net realizable AIAC | | | $ 481,177 |
| 40 | | | | |
| 41 | **5 Effective tax rates Per Schedule TJC-1, page 2 of 2** | | | 31.75% |

Goodman Water Company
Docket No. W-02500A-10-0382
Test Year Ended December 31, 2009

Schedule TJC-8
Surrebuttal Schedules


## SUMMARY OF OPERATING INCOME

| LINE NO. | DESCRIPTION | (A) COMPANY AS FILED | (B) RUCO TEST YEAR ADJM'TS | (C) RUCO TEST YEAR AS ADJ'TED | (D) RUCO PROP'D CHANGES | (E) RUCO AS RECOMM'D |
|---|---|---|---|---|---|---|
| | **Revenues:** | | | | | |
| 1 | Metered Water Revenues | $ 559,013 | $ 21,708 | $ 580,721 | $ 8,715 | $ 589,437 |
| 2 | Unmetered Water Revenues | - | - | - | - | - |
| 3 | Other Water Revenues | 13,738 | - | 13,738 | - | 13,738 |
| 4 | TOTAL WATER REVENUES | $ 572,751 | $ 21,708 | $ 594,459 | $ 8,715 | $ 603,174 |
| | **Operating Expenses:** | | | | | |
| 5 | Salaries and Wages | $ 40,000 | $ (4,986) | $ 35,014 | $ - | $ 35,014 |
| 6 | Purchased Water | - | - | - | - | - |
| 7 | Purchased Power | 27,066 | 577 | 27,642 | - | 27,642 |
| 8 | Chemicals | - | - | - | - | - |
| 9 | Repairs and Maintenance | 7,746 | - | 7,746 | - | 7,746 |
| 10 | Office Supplies and Expenses | 14,855 | - | 14,855 | - | 14,855 |
| 11 | Contractual Services | 102,925 | (2,493) | 100,432 | - | 100,432 |
| 12 | Water Testing | 1,215 | 1,568 | 2,783 | - | 2,783 |
| 13 | Rents | - | - | - | - | - |
| 14 | Transportation Expenses | - | - | - | - | - |
| 15 | Insurance - General Liability | 9,669 | - | 9,669 | - | 9,669 |
| 16 | Insurance - Health and Life | - | - | - | - | - |
| 17 | Reg. Comm. Exp. - Rate Case | 20,000 | - | 20,000 | - | 20,000 |
| 18 | Miscellaneous Expense | 378 | - | 378 | - | 378 |
| 19 | Depreciation Expense | 227,855 | (44,136) | 183,719 | - | 183,719 |
| 20 | Taxes Other Than Income | 2,988 | (372) | 2,615 | - | 2,615 |
| 21 | Property Taxes | 21,299 | (3,570) | 17,728 | 87 | 17,815 |
| 22 | Income Tax | 22,873 | 17,162 | 40,035 | 2,681 | 42,716 |
| 23 | TOTAL OPERATING EXPENSES | $ 498,868 | $ (36,250) | $ 462,617 | $ 2,767 | $ 465,384 |
| 24 | **OPERATING INCOME (LOSS)** | $ 73,883 | | $ 131,842 | | $ 137,790 |

References:

Column (A): Company Schedule C-1
Column (B): TJC-9, Columns (B) Thru (H)
Column (C): Column (A) + Column (B)
Column (D): Revenue From TJC-1, Column (B), Line 8 And Income Tax From TJC-1, Column (B), Line 8 - Line 6
Column (E): Column (C) + Column (D)

Goodman Water Company
Docket No. W-02500A-10-0382
Test Year Ended December 31, 2009

Schedule TJC-9
Surrebuttal Schedules


**OPERATING INCOME ADJUSTMENTS**
**TEST YEAR AS FILED AND ADJUSTMENTS**

| LINE NO. | DESCRIPTION | (A) COMPANY AS FILED | (B) ADJ # 1 DEP. EXPENSE | (C) ADJ # 2 PROPERTY TAX | (D) ADJ # 3 REV. & EXP. ANNUAL'N | (E) ADJ # 4 SALARIES & WAGES | (F) ADJ # 5 CONTRACTUAL SERVICES | (G) ADJ # 6 WATER TESTING | (H) ADJ # 7 INCOME TAX | (I) RUCO AS ADJT'D |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Revenues:** | | | | | | | | | |
| 1 | Metered Water Revenues | $ 559,013 | $ - | $ - | $ 21,708 | $ - | $ - | $ - | $ - | $ 580,721 |
| 2 | Unmetered Water Revenues | - | - | - | - | - | - | - | - | - |
| 3 | Other Water Revenues | 13,738 | - | - | - | - | - | - | - | 13,738 |
| 4 | TOTAL WATER REVENUES | $ 572,751 | $ - | $ - | $ 21,708 | $ - | $ - | $ - | $ - | $ 594,459 |
| | **Operating Expenses:** | | | | | | | | | |
| 5 | Salaries and Wages | $ 40,000 | $ - | $ - | $ - | $ (4,986) | $ - | $ - | $ - | $ 35,014 |
| 6 | Purchased Water | - | - | - | - | - | - | - | - | - |
| 7 | Purchased Power | 27,066 | - | - | 577 | - | - | - | - | 27,642 |
| 8 | Chemicals | - | - | - | - | - | - | - | - | - |
| 9 | Repairs and Maintenance | 7,746 | - | - | - | - | - | - | - | 7,746 |
| 10 | Office Supplies and Expenses | 14,855 | - | - | - | - | - | - | - | 14,855 |
| 11 | Contractual Services | 102,925 | - | - | - | - | (2,493) | - | - | 100,432 |
| 12 | Water Testing | 1,215 | - | - | - | - | - | 1,568 | - | 2,783 |
| 13 | Rents | - | - | - | - | - | - | - | - | - |
| 14 | Transportation Expenses | - | - | - | - | - | - | - | - | - |
| 15 | Insurance - General Liability | 9,669 | - | - | - | - | - | - | - | 9,669 |
| 16 | Insurance - Health and Life | - | - | - | - | - | - | - | - | - |
| 17 | Reg. Comm. Exp. - Rate Case | 20,000 | - | - | - | - | - | - | - | 20,000 |
| 18 | Miscellaneous Expense | 378 | - | - | - | - | - | - | - | 378 |
| 19 | Depreciation Expense | 227,855 | (44,136) | - | - | - | - | - | - | 183,719 |
| 20 | Taxes Other Than Income | 2,988 | - | - | - | (372) | - | - | - | 2,615 |
| 21 | Property Taxes | 21,299 | - | (3,570) | - | - | - | - | - | 17,728 |
| 22 | Income Tax | 22,873 | - | - | - | - | - | - | 17,162 | 40,035 |
| 23 | TOTAL OPERATING EXPENSES | $ 498,868 | $ (44,136) | $ (3,570) | $ 577 | $ (5,358) | $ (2,493) | $ 1,568 | $ 17,162 | $ 462,617 |
| 24 | **OPERATING INCOME (LOSS)** | $ 73,883 | | | | | | | | $ 131,842 |

References:
Column (A): Company Schedule C-1
Column (B): TJC Testimony and Schedule TJC-10
Column (C): TJC Testimony and Schedule TJC-11
Column (D): TJC Testimony and Schedule TJC-12
Column (E): TJC Testimony and Schedule TJC-13
Column (F): TJC Testimony and Schedule TJC-14
Column (G): TJC Testimony and Schedule TJC-15
Column (H): TJC Testimony and Schedule TJC-16
Column (I): Sum Of Columns (A) Thru (H)

**RUCO OPERATING INCOME ADJUSTMENT NO. 1**
**TEST YEAR DEPRECIATION EXPENSE**

| LINE NO. | ACCT. NO. | ACCOUNT NAME | (A) RUCO TOTAL PLANT VALUE | (B) APPROVED DEPRECIATION RATE DECISION NO. 69404 | (C) TEST YEAR DEPRECIATION EXPENSE |
|---|---|---|---|---|---|
| 1 | 301 | Organization Cost | $ 114,837 | 0.00% | $ - |
| 2 | 302 | Franchise Cost | - | 0.00% | - |
| 3 | 303 | Land and Land Rights | 225,673 | 0.00% | - |
| 4 | 304 | Structures and Improvements | 88,694 | 3.33% | 2,954 |
| 5 | 305 | Collecting and Impounding Res. | - | 2.50% | - |
| 6 | 306 | Lakes, Rivers, and Other Intakes | - | 2.50% | - |
| 7 | 307 | Wells & Springs | 386,591 | 3.33% | 12,873 |
| 8 | 308 | Infiltration Galleries and Tunnels | - | 6.67% | - |
| 9 | 309 | Supply Mains | - | 2.00% | - |
| 10 | 310 | Power Generation Equipment | - | 5.00% | - |
| 11 | 311 | Electric Pumping Equipmemt | 815,621 | 12.50% | 101,953 |
| 12 | 320 | Water Treatment Equipment | 13,289 | 3.33% | 443 |
| 13 | 320.1 | Water Treatment Plant | - | 3.33% | - |
| 14 | 320.2 | Chemical Solution Feeders | - | 20.00% | - |
| 15 | 330 | Dist. Reservoirs & Standpipe | 642,435 | 2.22% | 14,262 |
| 16 | 330.1 | Storage Tanks | - | 2.22% | - |
| 17 | 330.2 | Pressure Tanks | - | 5.00% | - |
| 18 | 331 | Trans. and Dist. Mains | 1,077,430 | 2.00% | 21,549 |
| 19 | 333 | Services | 386,946 | 3.33% | 12,885 |
| 20 | 334 | Meters | 94,263 | 8.33% | 7,852 |
| 21 | 335 | Hydrants | 161,737 | 2.00% | 3,235 |
| 22 | 336 | Backflow Prevention Devices | - | 6.67% | - |
| 23 | 339 | Other Plant and Misc. Equip. | 85,665 | 6.67% | 5,714 |
| 24 | 340 | Office Furniture and Fixtures | - | 6.67% | - |
| 25 | 340.1 | Computers and Software | - | 20.00% | - |
| 26 | 341 | Transportation Equipment | - | 20.00% | - |
| 27 | 342 | Stores Equipment | - | 4.00% | - |
| 28 | 343 | Tools and Work Equipment | - | 5.00% | - |
| 29 | 344 | Laboratory Equipment | - | 10.00% | - |
| 30 | 345 | Power Operated Equipment | - | 5.00% | - |
| 31 | 346 | Communications Equipment | - | 10.00% | - |
| 32 | 347 | Miscellaneous Equipment | - | 10.00% | - |
| 33 | 348 | Other Tangible Plant | - | 10.00% | - |
| 34 | | Rounding | - | | - |
| 35 | | **COMPANY TOTAL PLANT & ACCUM. DEPRE.** | $ 4,093,181 | | $ 183,719 |
| | | Less: | | | |
| 36 | | Amortizations Of CIAC (TJC-2, Col. (C), Line 8) | $ - | | - |
| 37 | | TOTAL DEPRECIATION EXPENSE (Line 35 + Line 36) | | | $ 183,719 |
| 38 | | Test Year Depreciation Expense As Filed (Co. Sch. C-1) | | | 227,855 |
| 39 | | Increase (Decrease) In Depreciation Expense (Line 37 - Line 37) | | | $ (44,136) |
| 40 | | RUCO Adjustment (Line 39) (See TJC-9, Column (B), Line 19) | | | $ (44,136) |

References: Column (A): TJC-5, Column (D)
Column (B): Per Decision No. 69404
Column (C): Column (A) X Column (B)

**RUCO OPERATING INCOME ADJUSTMENT NO. 2**
**PROPERTY TAXES**

| LINE NO. | Property Tax Calculation | (A) RUCO AS ADJUSTED | (B) RUCO RECOMMENDED |
|---|---|---|---|
| 1 | RUCO Adjusted Test Year Revenues - 2009 | $ 594,459 | $ 594,459 |
| 2 | Multiplied by 2 | 2 | 2 |
| 3 | Subtotal (Line 1 * Line 2) | $ 1,188,918 | $ 1,188,918 |
| 4a | RUCO Adjusted Test Year Revenues - 2009 | 594,459 | |
| 4b | RUCO Recommended Revenue, Per Schedule TJC-8 | | 603,174 |
| 5 | Subtotal (Line 4 + Line 5) | $ 1,783,376 | $ 1,792,092 |
| 6 | Number of Years | 3 | 3 |
| 7 | Three Year Average (Line 5 / Line 6) | $ 594,459 | $ 597,364 |
| 8 | Department of Revenue Mutilplier | 2 | 2 |
| 9 | Revenue Base Value (Line 7 * Line 8) | $ 1,188,918 | $ 1,194,728 |
| 10 | Plus: 10% of CWIP - | - | - |
| 11 | Less: Net Book Value of Licensed Vehicles | - | - |
| 12 | Full Cash Value (Line 9 + Line 10 - Line 11) | $ 1,188,918 | $ 1,194,728 |
| 13 | Assessment Ratio | 20.0% | 20.0% |
| 14 | Assessment Value (Line 12 * Line 13) | $ 237,784 | $ 238,946 |
| 15 | Composite Property Tax Rate (Per Company Schedule C-2, Page 3, Line 16) | 7.4558% | 7.4558% |
| 16 | RUCO Proposed Property Tax Expense (Line 14 * Line 15) | $ 17,729 | |
| 17 | Company Proposed Property Tax | 21,299 | |
| 18 | RUCO Test Year Adjustment (Line 16-Line 17) | $ (3,570) | |
| 19 | Property Tax - RUCO Recommended Revenue (Line 14 * Line 15) | | $ 17,815 |
| 20 | RUCO Test Year Adjusted Property Tax Expense (Line 16) | | 17,729 |
| 21 | Increase/(Decrease) to Property Tax Expense | | $ 87 |
| 22 | Increase/(Decrease) to Property Tax Expense | | $ 87 |
| 23 | Increase in Revenue Requirement | | 8,715 |
| 24 | Decrease to Property Tax per Dollar Increase in Revenue (Line19/Line 20) | | 0.994107% |

References:
Column (A): Company Schedule C-1 Page 3
Column (B): TJC Testimony

**RUCO OPERATING INCOME ADJUSTMENT NO. 4**
**SALARIES & WAGES**

| Line No. | | | |
|---|---|---|---|
| 1 | RUCO Adjustment to Salaries and Wages | | Amount |
| 2 | | | |
| 3 | | | |
| 4 | Company Request for Annual Salary of President/Manager | | $ 40,000 |
| 5 | Amount Recorded in Test Year | | 32,000 |
| 6 | Increase (decrease) in Salaries and Wages | | 8,000 |
| 7 | | | |
| 8 | | | |
| 9 | Company Adjustment to Test Year Book Amount | | $ 8,000 |
| 10 | | | |
| 11 | Inflation Factor Oct. 2005 thru June 2010 per InflationData.com | | **9.42%** |
| 12 | | | |
| 13 | RUCO Adjustment to Test Year Book Amount | | $ 3,014 |
| 14 | | | |
| 15 | RUCO Adjustment to Salaries & Wages | | $ (4,986) |
| 16 | | | |
| 17 | | | |
| 18 | Adjust Payroll Taxes to refelect RUCO Salaries and Wages | | |
| 19 | | | |
| 20 | FICA per Company | 6.02% | $ 2,408 |
| 21 | FICA per RUCO | 6.02% | 2,108 |
| 22 | | | |
| 23 | Medicare per Company | 1.45% | 580 |
| 24 | Medicare per RUCO | 1.45% | 508 |
| 25 | | | |
| 26 | FUTA per Company | 0.80% (first $7,000 of wages) | 56 |
| 27 | FUTA per RUCO | 0.80% (first $7,000 of wages) | 56 |
| 28 | | | |
| 29 | SUTA per Company | 2.70% (first $7,000 of wages) | 189 |
| 30 | SUTA per RUCO | 2.70% (first $7,000 of wages) | 189 |
| 31 | | | |
| 32 | | | |
| 33 | Total Payroll Taxes per Company | | $ 3,233 |
| 34 | Total Payroll Taxes per RUCO | | 2,861 |
| 35 | | | |
| 36 | Payroll Taxes Recorded in Test Year | | 2,693 |
| 37 | | | |
| 38 | Company Increase (decrease) in Payroll Taxes | | $ 540 |
| 39 | RUCO Increase (decrease) in Payroll Taxes | | 168 |
| 40 | | | |
| 41 | RUCO Adjustment to Payroll Taxes | | $ (372) |

**RUCO OPERATING INCOME ADJUSTMENT NO. 5**
**CONTRACTUAL SERVICES**

| Line No. | | |
|---|---|---|
| 1 | Contractual Services - Jim Shiner | |
| 2 | | |
| 3 | Company Request for Contractual Services 2010 | $ 20,000 |
| 4 | Contractual Services recorded during test year | 16,000 |
| 5 | | |
| 6 | Company Increase (decrease) in Contractual Services | $ 4,000 |
| 7 | | |
| 8 | | |
| 9 | Inflation Factor Oct. 2005 thru June 2010 per InflationData.com | **9.42%** |
| 10 | | |
| 11 | | |
| 12 | RUCO Adjustment to Test Year Book Amount | $ 1,507 |
| 13 | | |
| 14 | RUCO Recommended Contractual Services for J. Shiner | 17,507 |
| 15 | | |
| 16 | | |
| 17 | RUCO Adjustment to Contractual Services | $ (2,493) |
| 18 | | |
| 19 | | |
| 20 | | |

**RUCO OPERATING INCOME ADJUSTMENT NO. 7**
**INCOME TAX EXPENSE**

| LINE NO. | DESCRIPTION | (A) REFERENCE | (B) AMOUNT |
|---|---|---|---|
| | **FEDERAL INCOME TAXES:** | | |
| 1 | Operating Income Before Taxes | Sch. TJC-9, Column (H), L24 + L22 | $ 171,877 |
| | LESS: | | |
| 2 | Arizona State Tax | Line 11 | (8,979) |
| 3 | Interest Expense | Note (A) Line 20 | (43,013) |
| 4 | Federal Taxable Income | Sum Of Lines 1 Thru 3 | $ 119,885 |
| 5 | Federal Tax Rate | Sch. TJC-1, Pg 2, Col. (D), L34 | 25.91% |
| 6 | Federal Income Tax Expense | Line 4 X line 5 | $ 31,056 |
| | **STATE INCOME TAXES:** | | |
| 7 | Operating Income Before Taxes | Line 1 | $ 171,877 |
| | LESS: | | |
| 8 | Interest Expense | Note (A) Line 20 | (43,013) |
| 9 | State Taxable Income | Sum Of Lines 7 & 8 | $ 128,864 |
| 10 | State Tax Rate | Tax Rate | 6.97% |
| 11 | State Income Tax Expense | Line 9 X Line 10 | $ 8,979 |
| | **TOTAL INCOME TAX EXPENSE:** | | |
| 12 | Federal Income Tax Expense | Line 6 | $ 31,056 |
| 13 | State Income Tax Expense | Line 11 | 8,979 |
| 14 | Total Income Tax Expense Per RUCO | Line12 + Line 13 | $ 40,035 |
| 15 | Total Income Tax Expense Per Company (Per Company Sch. C-1) | | 22,873 |
| 16 | Total Income Tax Adjustment | Line 14 - Line 15 | $ 17,162 |
| 17 | RUCO Adjustment (See Sch. TJC-9, Column (H), L22) | Line16 | $ 17,162 |

NOTE (A):
Interest Synchronization:

| | | | |
|---|---|---|---|
| 18 | Adjusted Rate Base (Sch. RLM-2, Col. (E), L15) | $ | 1,755,118 |
| 19 | Weighted Cost Of Debt (Sch. RLM-14, Col. (F), L1) | | 2.45% |
| 20 | Interest Expense (L17 X L18) | $ | 43,013 |

Goodman Water Company
Docket No. W-02500A-10-0382
Test Year Ended December 31, 2009

Schedule TJC-15
Surrebuttal Schedules


**COST OF CAPITAL**

| LINE NO. | DESCRIPTION | (A) CAPITAL RATIO | (B) COST | (C) WEIGHTED COST RATE |
|---|---|---|---|---|
| 1 | Long-Term Debt | 40.00% | 6.13% | 2.45% |
| 2 | Common Equity | 60.00% | 9.00% | 5.40% |
| 3 | Total Capitalization | 100.00% | | |
| 4 | COST OF CAPITAL | | | 7.85% |

References:
Columns (A) Thru (F): See Testimony Of RUCO Witness William Rigsby