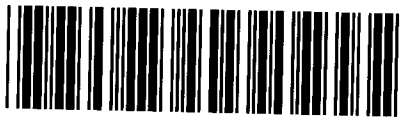
Control Number: 44809



Item Number: 128

Addendum StartPage: 0

SOAH DOCKET NO. 473-16-1848.WS

PUC DOCKET NO. 44809

APPLICATION OF QUADVEST L.P.	§	BEFORE THE STATE OFFICE OF
FOR A RATE/TARIFF CHANGE	§	ADMINISTRATIVE HEARINGS

REBUTTAL TESTIMONY

OF

CHARLES LOY

ON BEHALF OF

QUADVEST L.P.

MAY 18, 2016

128

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TABLE OF CONTENTS

I. Introduction 1

II. Rate Base 1

III. Revenue Requirement 9

IV. Update of QVLP'S Proposed Revenue Requirement 10

V. Rate Design 10

Attachments:

Exhibit QVLP CEL-1	(With Notations) – Relevant Pages from TCEQ Water/Tariff Rate Change Instructions
Exhibit QVLP CEL-2	Quadvest Rebuttal Position

REBUTTAL TESTIMONY OF CHARLES E. LOY, C.P.A.
ON BEHALF OF QUADVEST L.P.

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Charles E. Loy. I am employed by GDS Associates and my business address is 919 Congress Avenue, Suite 800, Austin, Texas 78701.

Q. DID YOU FILE DIRECT TESTIMONY IN THIS CASE?

A. Yes I did. I have been hired by Quadvest LP (QVLP) to assist them with their rate filing.

Q. PLEASE DESCRIBE THE PURPOSE OF YOUR REBUTTAL TESTIMONY.

A. I will address the issues brought forth by the Office of the Public Utility Council (OPUC) witness Mr. Chris Ekrut and the Public Utility Commission (PUC) witnesses, Ms. Debbie Lookerman and Mr. Sean Scaff.

Q. HOW IS YOUR REBUTTAL TESTIMONY ORGANIZED?

A. I will address the PUC Staff and OPUC's adjustments to rate base issues first, then revenue requirement and rate design.

II. RATE BASE

Q. WHAT ARE THE ISSUES WITH RATE BASE?

A. Both Staff and OPUC recommend 1) eliminating the Company's proposed adjustment for AMRs, 2) including accumulated deferred taxes in rate base and 3) including customer deposits in rate base. Also, Staff proposes to reduce the Company's cash working capital allowance by using a $1/12^{th}$ factor rather than the $1/8^{th}$ factor allowed in the PUC Rate Application form and instructions.

Q. DESCRIBE THE CONCERNS STAFF AND OPUC HAS WITH THE COMPANY'S PROPOSED INSTALLATION OF THE AUTOMATED METER READING (AMR) SYSTEMS?

A. Overall OPUC and the PUC have one or more of the following four concerns:

1) The AMRs adjustment as proposed by the Company do not comport with the "used and useful" and "known and measurable" rate making standards set forth in the Water Code
2) The QVLP proposed phase in of the AMR is not supported by any PUC rules or laws
3) QVLP did not identify and quantify all the "attendant" cost reductions as a result of the AMR installation
4) The Company's investment in AMRs is not in the public's best interest and should not be approved by this Commission.

Q. PLEASE ADDRESS THE FIRST CONCERN LISTED ABOVE.

A. The Company indicated in the Appendix I Executive Summary and in the Direct Testimony of Mr. Jeff Eastman that rate recovery for the AMRs or Phase II of the rate increase would not be implemented until installation is complete and approved by the PUC. The rate notice sent to QVLP customers indicated that the Phase II rate increase would occur "after certain facilities are placed into service, which is estimated to be January 1, 2016" which was the date the Company anticipated the case would be concluded and the AMR project complete. Further, QVLP's CEO proposes in his pre-filed Rebuttal Testimony the terms under which QVLP will implement Phase II rates. The terms he proposes adhere to both the "used and useful" and "known and measurable" rate making standards cited by OPUC and the PUC.

The Phase II rate computation as filed may seem "speculative" however, when it is finally implemented the AMRs will be used and useful. The rates will reflect a computations using actual known and measurable documented amounts that will be submitted for review and verification by this Commission.

Q. DOES THE COMPANY'S PROPOSED PHASE IN RATE TREATMENT OF THE AMRS COMPLY WITH PUC RULES?

A. Yes. PUC Subst. Rule 24.34 provides for alternative rate making procedures including phased and multi-step rate change as we have requested. In fact, Section X of the Rate Application form for Class B utilities approved at the time of this filing provides a section for alternative rate design.

Q. IN YOUR OPINION, HAS THE COMPANY MET THE REQUIREMENTS OF SECTION 24.34.

A. Yes. This is discussed more fully in the Direct Testimony of Simon Sequiera and Jeffery Eastman. I agree with those conclusions and adopt them herein.

Q. DID THE COMPANY IDENTIFY ALL THE DIRECT QUANTIFIABLE COST SAVINGS OR RATE OFFSETS ASSOCIATED WITH THE AMR IMPLEMENTATION?

A. Yes, again, this is discussed by Mr. Sequiera and Mr. Eastman. I agree with the assumptions and conclusions of these witnesses.

Q. DOES THIS REFLECT ALL THE IDENTIFIABLE DIRECT COST REDUCTIONS OR SAVINGS FOR THE AMR INVESTMENT?

A. Yes. I believe so. However, it is important to note that there are numerous other cost efficiencies identified by Mr. Eastman and Mr. Sequeira that are not easily quantifiable. The cost efficiencies are known but not easily measured. For instance, one of the cost

benefits cited is the elimination meter re-reads[1] which results in the avoidance of incurring vehicle related costs and frees the employee to focus on other utility operations. Intangible or non-quantifiable benefits are just as important as quantifiable ones.

Q. WHY DOES OPUC AND THE PUC BELIEVE THAT THE AMR INVESTMENT IS NOT IN THE PUBLIC'S BEST INTEREST?

A. It is my understanding that since the future cost savings (or revenue requirement reductions) do not offset the total AMR investment over a ten year period it does not make "economic sense" and thus the investment would be imprudent. Said another way, OPUC and Staff believes the AMR investment should be allowed only if it has a zero rate impact or lowers rates.

Q. DO YOU BELIEVE THE STAFF AND OPUC'S POSITION REGARDING AMRS IS REASONABLE?

A. No I do not. As I discussed above, there are a number of benefits, real and intangible that that are not easily quantified by Mr. Sequeira and Mr. Eastman. In fact, the installation of AMR devices is consider an industry best practice. As discussed by Mr. Sequeira and Mr. Eastman, AMR cost savings coupled with data analysis can help both QVLP and its customer's better control the production and consumption of water. Further, QVLP is not proposing to invest in untested "bleeding edge" technology. AMRs have been in operation for many years in a number of investor owned and publically owned water utilities. Many professional publications support and encourage the use of AMRs. Also, the PUC has rules for establishing smart meters (which are similar to AMRs) for electric utilities. There has never been a requirement at the PUC that benefits exceed costs of smart meters. In fact, in

[1] This occurs when the initial meter read by the contractor is not correct or missed and QVLP personnel must make a special trip to read the meters.

the electric dockets that I have reviewed, the costs far exceed the benefits, which recognizes the non-econcomic benefits to customers from AMRs. I am not aware of any PUC rule or precedent that requires a 100% savings offset on the cost of the meters as the PUC and OPUC have proposed, nor of any other investment. Also, it is my understanding that the PUC procedures allows utilities to recover any undepreciated investment relating to replaced meters which QVLP has made the decision to forfeit. It appears to me that the PUC recognizes the benefits of smart meters to customers and utilities.

Q. PLEASE ADDRESS THE PUC AND OPUC PROPOSALS TO REDUCE THE COMPANY'S RATE BASE BY ACCUMULATED DEFERRED FEDERAL INCOME TAXES (ADFIT) AND CUSTOMER DEPOSITS.

A. As I indicated in my Direct Testimony, it is important to understand that the Company's Application was filed in June of 2015 or before the new rules, regulations and rate filing packages for Water and Wastewater IOUs were effective. Accordingly, this Application was developed under the old or TCEQ based rules, guidance documents and forms that were temporarily adopted by the PUC until it approved a new set of rules and documents applicable to the PUC. Prior to water rate regulation moving from the TCEQ to the PUC, it has been my experience that the TCEQ did not require the inclusion of ADFIT and customer deposits liabilities in rate base. The TCEQ rate filing Application required form, specifically Table IV.E, does not list "customer deposits" and "accumulated deferred income taxes" as line item amounts to include in rate base or invested capital as well as the instructions for completing Table IV.E of the rate Application does not mention customer deposits or ADFIT. Finally, QVLP has never included ADFIT or customer deposits in previous rate filings and it was never an issue.

Q. IS IT APPROPRIATE TO EXCLUDE ADFIT FROM RATE BASE?

A. Yes, under the old rules it is required. It is my understanding that the practice of excluding ADFIT from rate base was due to TEX. ADMIN. CODE § 291.31(c) (3)(A)(i) (PUC Subst. Rule 24.31(C)(3)which expressly provided that "accumulated reserve for the deferred federal income taxes" must be excluded from rate base.

Q. DOES QVLP MAINTAIN AN ADFIT BALANCE?

A. Yes, there is an ADFIT balance on QVLPs balance sheet related to a change in tax status. This is the balance that OPUC proposes to place in Rate Base. However, QVLP is not a legal entity that is subject to income tax and has never needed to calculate income tax expense, either current or deferred, for purposes of its stand-alone income statement. As such, QVLP does not maintain another ADFIT balance. The ADFIT amount currently reflected on QVLP's balance sheet could be considered a contingent liability.

Q. HOW DID THE PUC STAFF DETERMINE THE ADFIT BALANCE IT IS RECOMMENDING BE INCLUDED IN RATE BASE?

A. PUC Staff estimated ADFIT by using the Company's return filed with the IRS. The difficulty with this approach is that the tax return does not provide a detailed breakdown between the water, sewer, non-utility and common plant. In addition the tax return amounts include items that have been excluded from this rate case such as acquisition adjustments and the affiliate's share of common plant. Consequently, the Staff's ADFIT amount reflects items that are not included for ratemaking in this case. There is problem with the Staff's method for estimating the Company's ADFIT balance as of the end of the test year. Staff computes a tax "percentage depreciated" using information from the tax return. This information includes all Company assets – water, sewer, non-utility, and common plant.

Q. DID THE STAFF REQUEST DATA FROM THE COMPANY REGARDING ACCUMULATED DEFERRED INCOME TAXES?

A. The Staff did not request any information related to tax and book depreciation for the water system until a few days before it filed its direct testimony. Regardless, depreciation information is only part of the ADFIT computation. Any ADFIT estimate computed by the Staff in this proceeding will not meet the "known and measurable" rate making standard

Q. WILL QVLP COMPUTE THE ADFIT REQUIRED UNDER THE NEW RULES PRIOR TO THE NEXT RATE CASE?

A. Yes. The next rate case QVLP files will be under the PUC new rules which require the inclusion of an ADFIT balance in rate bae. QVLP will calculate deferred taxes as described above and incorporate its ongoing calculations as part of its normal accounting process. QVLP did not compute and include an ADFIT balance for this case because it was not required under the old rule as cited above.

Q. WHAT WOULD BE YOUR ADFIT RECOMMENDATION SHOULD THIS COMMISSION DISREGARD THE OLD RULE THAT EXPRESSLY STATES THAT "ACCUMULATED RESERVE FOR THE DEFERRED FEDERAL INCOME TAXES" MUST BE EXCLUDED FROM RATE BASE?

A. I recommend that the Commission use the ADFIT that is currently reflected on QVLPs books and balance sheet rather than the flawed computation proposed by Staff. I believe the ADFIT currently on the Company's books as adjusted and proposed by OPUC represents a supportable calculation and is reasonable.

QQ. IS THERE A SPECIFIC RULE UNDER THE OLD RULES THAT REQUIRES THE EXCLUSION OF CUSTOMER DEPOSITS FROM RATE BASE?

A. No. In fact there is no mention of customer deposits in the rate base section of the old rules. It has been my understanding that exclusion of customer deposits applies to the former

version of PUC Subst. Rule 24.31 (formerly TCEQ Rule § 291.31(c) (3)(A) (v)) which expressly excludes "other sources of cost-free capital". However, Mr. Eastman explains why the Company does not consider customer deposits a source of "cost free" capital. Regardless, as I stated above, QVLP has never included customer deposits in rate base in previous rate filings and it was never an issue.

Q. STAFF PROPOSES TO COMPUTE CASH WORKING CAPITAL USING 1/12TH RATHER THAN 1/8TH AS DIRECTED BY THE FORM. PLEASE COMMENT.

A. Every Texas water case in which I have been involved has used a 1/8th cash working capital calculation without objection from the Staff. As with ADFIT and Customer Deposits, QVLP's last rate case used a 1/8th cash working capital amount and it was accepted by Staff. The 1/8th formula method is used in a number of state and federal commissions. I have never seen a 1/12th formula used. The 1/8th methodology represents 45 days or 15 days for the service period (the midpoint of a 30 day water service cycle) and 30 days to read meters, print and mail the bills and receive payments from customers. Staff's support for the change to 1/12th seems to be more opinion based rather than based on similar reasoning supporting the 1/8 method. The 1/12th methodology reflects only 15 days to read meters, prepare and mail bills and receive payment from customers while QVLP takes about 25 days to read meters, prepare, mail bills and receive payment. The 1/8th methodology seems to be a better match given QVLP billing process. I believe the Commission should be consistent under the old rules and maintain the 1/8th cash working capital methodology.

Q. DO YOU HAVE ANY MORE COMMENTS REGARDING RATE BASE BEFORE YOU ADDRESS THE OTHER ISSUES?

A. Yes. As previously stated, customer deposits, ADFIT, and the 1/8th working capital formula were not issues in QVLP's last case as well as the vast majority of cases in which I have been involved. In fact, this is the first time that I have been in a rate case in which the 1/8th cash working capital provision has been challenged by the Staff. This inconsistency makes it very difficult for Companies to plan rate cases and avoid being subject to the rate case expense rule that requires water and sewer Companies to be granted at least 51% of their requested rate increase or they are not eligible for rate case expense reimbursement. Given the special circumstances of this case, I think it would be reasonable for this Commission to continue to recognize the precedents practiced under the old rules. Exhibit QVLP CL-1 provides the relevant pages of the Rate Application Forms and Instructions.

III. REVENUE REQUIREMENT

Q. STAFF REMOVED LEGITIMATE O&M EXPENSES BECAUSE THEY CLAIM THAT THE EXPENSES ARE 'NON-RECURRING". IS THIS REASONABLE?

A. No it is not. Staff removed intermittent costs, not non-recurring costs. Intermittent O&M costs should be viewed from an overall operating perspective as part of the routine cost of doing business. Every year the company incurs O&M expenses but they are not always the same. For instance, a car owner's battery may fail one year and the alternator the next. Although these specific costs do not happen every year they are replaced with other costs. The same thing happens with a utility except on a much larger scale. Staff acknowledges that the so called "non-recurring" costs are really intermittent as evidenced by the following statement: "I also recommend that one third of these non-recurring expenses be allowed in the amount of $30,236 because it will be at least three years before these expenses are

repeated."[2] It is not reasonable to expect the Company to defer and amortize intermittent O&M costs. Mr. Eastman explains how this would result in very complex accounting procedures and significantly increase accounting entries and costs.

IV. UPDATE OF QVLP'S PROPOSED REVENUE REQUIREMENT

Q. HAVE YOU PREPARED AN EXHIBIT THAT SHOWS QVLP'S CURRENT PROPOSED REVENUE REQUIREMENT AFTER REVIEWING PUC AND OPUC DIRECT TESTIMONY AND EXHIBITS?

A. Yes I have. Exhibit QVLP CL-2 starts with QVLP's originally filed revenue requirement with the necessary adjustments needed to present an updated revenue requirement position. Exhibit QVLP CL-2 breaks down the updated revenue requirement into the two separate phases or revenue requirement without the AMR investment and the incremental revenue requirement with the AMR investment. The adjustments have been footnoted to explain how the numbers were derived.

V. RATE DESIGN

Q. PLEASE DISCUSS THE CONSOLIDATED RATE DESIGN THE COMPANY IS PROPOSING.

A. QVLP has proposed its currently approved rate structure for the consolidated system. The proposed fixed or base rates cover 67% of the revenue requirement with 33% covering the variable or volumetric rates. The volumetric rates consist of four rate blocks or tiers with inclining rates. That is, each tier's rates increase the more water is consumed. This rate structure helps to moderate or conserve water by giving water users incentives to reduce their usage. In other words, higher usage results in higher incremental rates and higher total

[2] Loockerman Redacted Direct, page 6 of 17, lines 12 through 14.

bills. Thus, ratepayers have a clear incentive to reduce usage at the higher tier levels. In some cases the usage reduction can be significant.

Q. WHY IS THE COMPANY PROPOSING A 67% FIXED RATIO?

A. Water and Sewer utilities have higher fixed or semi-fixed costs than variable costs or costs that fluctuate with water consumption. Examples of fixed costs would be debt service, payroll and related taxes and benefits, capital costs, depreciation, and taxes. These costs do not fluctuate with usage. There is a general rule of thumb that water and sewer utilities incur fixed costs that will represent anywhere from 65% to 70% of the total revenue requirement. Further, the PUC rate Application instructions allow for the assignment of 67% of costs to the fixed base charge. The instructions state in bold:

> ***"NOTE: You may also choose to use a single percentage ratio for your total revenue requirement. We will accept a simple ration of 67% for fixed expenses and 33% for variable costs. If you choose to use this ratio, then you can skip to Line [U]"***

This note can be found in Exhibit QVLP CL-1. The 67% fixed cost allowance permitted QVLP to propose that the entire increase be included in the fixed charges. This approach allowed QVLP to increase its current fixed revenue ratio from 62.5% to 66.7%.

Q. DID OPUC TAKE ISSUE WITH THE 67% FIXED RATIO USED BY THE COMPANY?

A. Yes. OPUC acknowledges that the 67% fixed ratio is allowable but recommends that the cost "fixed" percentage designations is Section VI of the Application (Exhibit QVLP CL-1) or the Revenue Requirement (QVLP Rate Application Bates 16) be applied because it results in a lower fixed cost ratio.

Q. WHAT ARE THE RESULTS OF OPUC'S RATE DESIGN RECOMMENDATIONS?

A. OPUC's recommendation lowers QVLP's existing approved fixed base charge and places about 66% of its recommended Phase I increase to fixed costs and the remaining 34% to variable costs. OPUC's recommendation lowers QVLP's *existing* or currently approved fixed cost rates as well as its fixed revenue ratio from 62.5% to about 60.6%. To make up for this significant shift from fixed revenue to volumetric, OPUC had to propose significantly higher volumetric rates.

Q. WHAT DID THE PUC STAFF PROPOSE?

A. Staff is proposing a slight decrease to the Phase I rates thus, very little if any change to QVLP's currently approved rates would be required. However, Staff significantly lowered QVLP *existing* fixed rates which lowered QVLPs current fixed revenue ratio down from 62.5% to 57.4%. Again, Staff's drastic lowering of QVLP's *existing* or currently approved fixed rates requires significantly higher volumetric rates.

Q. DID STAFF EXPLAIN WHY THEY MADE SUCH A DRASTIC SHIFT FROM FIXED RATES TO VOLUMETRIC?

A. No. The impact of PUC's proposal would result in the Company collecting about $300 thousand less fixed revenues assuming the rates were in effect during the test year.

Q. PLEASE COMMENT ON STAFF'S AND OPUC'S RATE DESIGN PROPOSALS?

A Lowering the Company's existing fixed revenue ratio leaves the Company vulnerable to significant changes in volumetric use. These changes are intensified when volumetric rates are significantly increased to make up for the reduction in fixed rates or revenues. This approach may be preferable to a non-regulated municipal utility or a utility that can

implement temporary surcharges to make up for lost revenue, however it is not practical for an Investor Owned Utility (IOU). QVLP cannot implement a surcharge to make up the difference, it must file a rate case at a significant cost and effort. Further, drought conditions will not necessarily provide a temporary lift or surplus in revenues. In most cases, droughts will require utilities to implement water restrictions that typically limits outdoor use which could result in lower revenues than what would be realized even in a normal year. As such, incremental increases to variable rates should be small to avoid significant demand responses.

Q. WHAT WOULD BE THE RESULT IF STAFF'S AND OPUC'S RATE DESIGN IS IMPLEMENTED?

A. I believe volumetric revenues will drop significantly, as much as 10% or more. This would result the Company not receiving a significant portion of its revenue increase approved by this Commission. The impact under Staff's proposal would be greater since QVLP would end up with significantly less fixed revenues than it is billing under current rates. Studies indicate that when volumetric rates are significantly increased there will be a corresponding response in demand or usage. The significant reductions in volumetric use are not isolated to weather or precipitation, it is a trend that utilities are experiencing nationwide.

Q. WHAT FACTORS ARE CONTRIBUTING TO DECLINING WATER CONSUMPTION THROUGH NORTH AMERICA?

A. The following excerpt from an article published by the University of North Carolina Environmental Finance Center clearly describes a number of reasons why water consumption is declining.

> "Conservation efforts are everywhere. Most cities collect recyclables. Children no longer leave the faucet running when brushing teeth. "Green" is viewed favorably by the majority of the population. This acceptance of conservation has evolved over the past 40 years.
>
> Federal legislation (the Energy Policy Act of 1992, the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007) have led to requirements that mandate more and more efficient fixtures and appliances. Most homes have reached build-out with respect to fixtures and appliances, so there are not additional fixtures or appliances coming into homes, just replacements, which are likely more efficient than the devices they are replacing.
>
> It is unlikely that the conservation ethos, particularly held by the younger generations, will dissipate. Appliances and fixtures will continue to become more efficient and rates will rise. While the economy has historically been cyclical and should rebound, with the other three factors continuing to depress per capita usage, we believe that utilities in the United States are in the midst of a "new normal." It is unlikely that consumption will return to the levels of five or ten years ago. Though there is a limit to how low per capita usage can go, it is unlikely that the lower limits have been reached, considering how low per capita usage is in certain areas of the United States and around the world."

Declining Water Consumption, Part Two: The Big Picture
By Erin Weeks
http://efc.web.unc.edu/2012/05/25/declining-water-consumption-part-two-the-big-picture/

As stated in the paper, the factors that are pushing down consumption are: acceptance of conservation; prevalence of more water efficient fixtures and appliances; elasticity impact of increasing water rates; and economic downturn.

Q. IS DECLINING WATER USAGE HAPPENING ACROSS THE COUNTRY?

A. Yes. Numerous studies have been conducted on this declining trend in residential water usage in North America with articles published in the American Water Works Association Journal and the Water Research Foundation to name a few. A Summit on Declining Water Sales and Utility Revenues convened by the Alliance for Water Efficiency was held in

Racine, Wisconsin in 2012 to explore the issues this declining water use is causing. In November 2014, the report Estimated Use of Water in the United States in 2010 from the United States Geological Survey (USGS) finds that total water withdrawals are at the lowest level since 1970 and 13% less than in 2005. Public withdrawals in that time frame (2005-2010) are 5% less even though the United States experienced a 4% growth in population.

Q. IS THIS TREND EXPECTED TO CONTINUE?

A. Most likely. Water using appliances are getting more and more efficient and there is more emphasis on water conservation measures to the general public. In addition, social trends to smaller households is having an effect on water usage. The passage of the Federal Plumbing Standards in 1992 have required toilets to use only 1.6 gallons a flush and today "high-efficiency" toilets use even less water. Over the years water efficiency standards have been applied to other household appliances. This century, "going green" has expanded to water efficiency with growing concerns over both the cost and supply of water. he Energy Policy Act of 2005 set new standards for plumbing fixtures and set efficiency standards for some commercial water using appliances such as commercial clothes washers while providing tax incentives for domestic dishwashers and washing machines. According to a May-June 2011 article in ECOHOME, Awash in Savings, "dishwashers and washing machines use 60% less water than they did 10 to 15 years ago." In 2012, the Department of Energy released new energy efficiency standards for residential dishwashers and clothes washers. These standards which went into effect in 2013 for dishwashers and 2015 for washers are expected to reduce water usage in home dishwashers by more than

20% and front-loading washers by 35%. The consensus today is the decline in water usage is expected to continue:

> "While local trends will impact utility-specific plans, this research investigation identified decreasing household size and penetration of water-conserving appliances as the primary causes of declining residential water usage. Although the rate of decline may slow, there is no indication that national household trends will reverse. Also, new and existing federal regulations will prompt further penetration of water-conserving appliances. Thus there is no indication that the decline in water usage will reverse."[3]

Q. IF THE COMMISSION DESREGARDS THE 67% ALLOWANCE PERMITTED IN THE APPLICATION INSTRUCTIONS WHAT GENERAL GUIDELINES WOULD YOU PROPOSE FOR RATE DESIGN?

A. If QVLP's proposed rate design is rejected, the rate design determined by this Commission should avoid significant volumetric increases in order to circumvent any significant reaction in consumption. Since we have consolidated five other systems (about 12% of the meter equivalences) with the existing QVLP rate structure, I recommend that all the consolidating system customer's rates be adjusted to reflect QVLPs currently approved rates. This would require about $310 thousand of the increase and result in a 64.5% fixed revenue ratio. Any remaining increase would then be applied. QVLP prefers that any remaining increase be applied 100% to fixed charges however, a distribution of the remaining increase of 64.5% to fixed charges and 35.5% to volumetric charges should maintain the fixed revenue ratio. At least 95% of the volumetric revenues should be distributed to the first three tiers (or blocks) on a proportional basis while the final tier or tail block should receive no more than 5% of the volumetric revenue allocation (about 2%

[3](Coomes et al. *North American Water Usage Trends Since 1992-Project #4031* (Water Research Foundation, 2010.)

of the remaining increase). This approach should limit the volumetric demand reductions due to higher volumetric rates as discussed above.

Q. DOES THIS COMPLETER YOUR REBUTTAL TESTIMONY?

A. Yes.

Exhibit QVLP CL-1 (with notations)

Relevant Pages from the TCEQ Water/Tariff Rate Change Instructions

EXHIBIT QVLP CL-1
PUC Docket 44809

INSTRUCTIONS

APPLICATION FOR A

RATE/TARIFF CHANGE

Table of Contents

GENERAL INFORMATION 2
DEFINITIONS 2
BEFORE YOU BEGIN 3
INSTRUCTIONS 5
SECTION IA - GENERAL INFORMATION 5
SECTION IB - MISCELLANEOUS INFORMATION 5
SECTION II: OPERATIONAL INFORMATION 6
SECTION III. PLANT & EQUIPMENT INFORMATION 7
SECTION IV. LONG TERM DEBT & EQUITY INFORMATION 11
SECTION V. INCOME TAX CALCULATION 13
SECTION VI. UTILITY INCOME & EXPENSE INFORMATION 13
SECTION IV. LONG TERM DEBT & EQUITY INFORMATION 14
SECTION V. INCOME TAX CALCULATION 14
SECTION VI. UTILITY INCOME & EXPENSE INFORMATION 14
SECTION VII - CUSTOMER INFORMATION 16
SECTION VIII - PRODUCTION & CONSUMPTION INFORMATION 17
TABLE VIII - SEWER 17
SECTION IX - RATE DESIGN 17
SECTION X - ALTERNATE METHOD OF RATE DESIGN 20
AFFIDAVIT 21
NOTICE OF PROPOSED RATE CHANGE 21
BILLING COMPARISON 22
SECTION 1.0 - RATE SCHEDULE 22
APPENDIX A RATE OF RETURN WORKSHEETRATE OF RETURN WORKSHEET 24
RATE OF RETURN WORKSHEET 25

EXHIBIT QVLP CL-1
PUC Docket 44809

- This is the Rate of Return that you will use in calculating the amount of return (interest) that you will include in the revenue requirement.
- Enter this amount in **Table IV. E., Line [G]**

No mention of ADFIT or Customer Deposits.

E. Invested Capital & Return - **Table IV. E.**
You will not complete the entire table at this time. The following instructions need to be completed now. Later instructions will indicate when you should return to this table.

- Line [A] - Enter the amount from **Table III. B., Box 2**
- Line [B] - Will be completed later
- Line [C] - If you have invested money to have extra supplies and parts on hand, you can enter the cost of those items in this table and earn return on them. Calculate the cost of any extra items that you have on hand and enter the amount on this line.
- Line D] - Will be completed later
- Line [E] - Enter the amount of Developer Contributions from **Table III. C., Box 1**
- Line [F] - Will be completed later
- Line [G] - Enter the Rate of Return from **Table IV. D., Box 8**
- Line [H] - Will be completed later

SECTION V. INCOME TAX CALCULATION

Table V. - This table will be completed after you have completed the next section.

SECTION VI. UTILITY INCOME & EXPENSE INFORMATION

A. Revenue requirement - Table VI - You should have already separated and totaled your test year expenses into the categories listed in this table.

- You will complete Columns **2, 3 and 4** at this time for all lines except Lines [P] - Federal Income Tax and [Q] - Return. Then, enter the subtotals from Line [L] in previous tables. Once the previous tables are completed, use information in those tables to complete Lines [P] and [Q] and the rest of this table.
  - Column **1** - Enter your test year expenses in this column for each of the lines/categories listed (except Lines [P] and [Q])
  - Column **2**- If you have any known and measurable changes for the test year expenses, enter the amount of the increase or decrease in this column. See the definition of "Known and Measurable" earlier in the instructions. Be sure that you are entering only the difference (just the amount of the increase or decrease) incurred in the test year.
  - Column **3** - For each line, add the amounts in Column **1** and Column **2** and put the total in Column **3** (except Lines [P] and [Q])
  - Line [L] - Subtotal
    - ~~Total Columns 1 and 2 and enter the total in this line.~~
    - Divide the amount in Column **3** Box **7** by **8** and enter the result in **Table IV. E., Line [B]**

Relates to Invested Capital form and 1/8 working capital formula

- Line [B] - Invested Capital - Enter the amount from **Table IV. E., Line [F]**
- Line [C] - Weighted Cost of Debt Capital - Enter the percentage from **Table IV. D., Box 6**
- Line [D] - Interest - Multiply the amount on Line [B] by the amount on Line [C] and enter the result on this line
- Line [E] - Taxable income
- Subtract Line [D] from Line [A]
- this is the amount taxable income that can be used to calculate income tax that you can include in the Revenue Requirement.
- Line [F] - Income Tax
- Just like an IRS Income Tax Table, the amount of income tax that you can include in your revenue requirement can be found in a Table attached to the application (Application Appendix A). Look up the amount of taxable income from Line [E] above in that table and then enter the tax from the table on this line.
- Now you can complete **Table VI. A.**

Go to:

SECTION VI. UTILITY INCOME & EXPENSE INFORMATION

A. Revenue Requirement - **Table VI. A. – Columns 1, 2 and 3**

- Line [P], Income Tax, Column **2**- Enter the amount from **Table V. Line [F]**
- Line [Q], Return, Column **2**- Enter the amount from **Table IV. E., Line [H]**
- Line [R], Add Lines [L] through [Q] in Columns **1, 2, and 3** and enter the totals

- Line [T], Subtract Line [S] from Line [R] and enter the amount here for Columns **1, 2, and 3**. Also enter these amounts in the same columns on Line [U]. The reason for this will be explained in the next section.
- Line [T], Box **8** - Enter this amount in **Table X. A., Line [D]**

B. Revenue Requirement - **Table VI. A. – 1, 2, and 3**

This portion of the table is designed to allow you to calculate the rates that you will charge to your customers in order to recover your proposed Revenue Requirement. Rate design is not an exact science so you may need to make an adjustment for the characteristics of your utility.

The expenses that you incurred during the test year are both fixed and variable in nature. Fixed expenses are those that will occur whether or not you pump any water. Some examples are office rent, accounting, and insurance. Variable expenses are those that change with the amount of water being pumped. Some examples are repairs and maintenance, pump electricity, and chemicals. There are some expenses that can have both fixed and variable components. Examples of these are salaries (some of the salaries are for office staff who work all year round and some are for operator salaries) and payroll taxes which are directly related to the salary expense.

- Column **5** - This column contains a suggested percentage for the fixed portion of each type of expense. They are percentages which may be representative of an average utility. However, note that they are only suggestions and that you may change the listed percentage to one that more realistically represents your utility's mix of fixed and variable expenses.

NOTE: You may also choose to use a single percentage ratio for your total revenue requirement. We will accept a simple ration of 67% for fixed expenses and 33% for variable costs. If you choose to use this ratio, then you can skip to Line [U] below

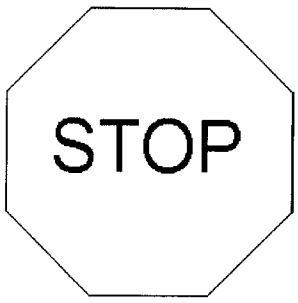
- Column **5** - Fixed Costs - Multiply the amount in Column **3** by the percentage in Column **4**, divide by 100, and enter the result in this Column
- Column **6**- Variable Costs - Subtract the amount in Column **3** from the amount in Column **5** and enter the result in this column
- Line [L] - enter the sum of Line [A] through Line [K] for Columns **5 and 6**
- Line [R] - enter the sum of Line [L] through Line [Q] for Columns **5 and 6**
- Line [T] - In Columns **5 and 6**, subtract the amount on Line [S] from the amount on Line [R] and enter the amount on this line
- Line [T] Box **9** - Enter the amount in this box in **Table IX. B., Line [A]**
- Line [T] Box **10**- Enter the amount in this box in **Table IX. A., Line [A]**
- Line [U] – Column **5** - Fixed Costs - Multiply the amount in Column **3** by 67% in Column **6**, divide by 100, and enter the result in this column.
- Line [U] – Column **6** - Variable Costs - Subtract the amount in Column **3** from the amount in Column **5** and enter the result in this column
- Line [U] Box **9** - Enter the amount in this box in **Table IX. B., Line [A]**
- Line [U] Box **10** - Enter the amount in this box in **Table IX. A., Line [A]**

EXHIBIT QVLP CL-1
PUC Docket 44809

APPLICATION FOR A

RATE/TARIFF CHANGE

EXHIBIT QVLP CL-1
PUC Docket 44809



When you are filling out this application, you cannot go from one line to the next and fill it out correctly. You will need to complete some tables partially and come back to them later in the process.

Therefore, it is important that you follow the instructions that accompany this application. They are designed to give you a step-by-step process for completing the application.

EXHIBIT QVLP CL-1
PUC Docket 44809

E. INVESTED CAPITAL & RETURN – WATER

No ADFIT or Customer Deposits listed

Table IV. E.

Net Book Value - From **Table III. B., Box ③**	[A]	$	
Working cash allowance -(Amount From **Table VI. A., Line [L] Column ③**, Box ⑦ (÷ 8)	[B]	$	
Materials and supplies	[C]	$	
Subtotal - Sum of [A] thru [C]	[D]	$	
Developer Contributions - From **Table III. C., Box ①**	[E]	$	
Total invested capital [D] - [E]	[F]	$	
Rate of return - From **Table IV. D., Box ⑧**	[G]		%
Return/Interest - If [F] is greater than -0-, then enter [F] * [G]. If [F] is less than -0-, enter -0-. Enter this amount in **Table V., Line [A] and Table VI. A., Line [Q], Column ②**	[H]	$	

Divides O&M Expenses from Revenue Requirement Schedule by 8.

SECTION V - INCOME TAX CALCULATION – WATER

Use the following table to determine the amount of income tax that can be included in your revenue requirement.

Table V.

Return - From **Table IV. E., Line [H]**	[A]	$	
Interest Calculation			
Total Invested Capital - From **Table IV. E., Line [F]**	[B]	$	
Weighted Cost of Debt Capital - Percentage From **Table IV. D., Box ⑥**	[C]		%
Interest [B]*[C]	[D]	$	
Taxable Income [A] - [D]	[E]	$	
Enter Income Tax from Tax Table **(Appendix A)**	[F]	$	①

①To Table VI. A., Line [P], Column ②

SECTION VI - UTILITY INCOME & EXPENSE INFORMATION – WATER

EXHIBIT QVLP CL-1
PUC Docket 44809

A REVENUE REQUIREMENT

Please provide the following information regarding the cost to the utility of providing water utility service over your selected twelve month "test year."
Note 1 - Instead of using the percentages listed, you may take the Total Cost and multiply it by 67% to determine the fixed portion and 33% for the variable portion.

TABLE VI. A.

Test Year _____ to_____	Line	12 Month "test year" per books	Known and Measurable Changes	Revenue Requirement for next yr	% of ③ that is fixed (Note 1) Rec.	Act	Fixed Expenses **(Note 1)**	Variable Expenses **(Note 1)**
		①	②	③=①+②	④		⑤=(③*④)/100	⑥=③-⑤
Salaries and Wages	[A]				50			
Contract Labor	[B]				90			
Purchased water	[C]				0			
Chemicals for treatment	[D]				0			
Utilities (electricity)	[E]				0			
Repairs/maintenance/supplies	[F]				50			
Office expenses	[G]				50			
Accounting & Legal fees	[H]				100			
Insurance	[I]				100			
Rate case expense	[J]				100			
Miscellaneous	[K]				50			
Subtotal - Sum of Line [A] thru Line [K]	[L]			⑦				
Payroll Taxes	[M]				50			
Property and other taxes	[N]				100			
Annual Depreciation and Amortization - From **Table III. B. Box ①**	[O]				100			
Income Taxes - From **Table V. Line [F]**	[P]				100			
Return - From **Table IV. E., Line [H]**	[Q]				100			
Subtotal - Sum of Line [L] thru Line [Q]	[R]							
Other Revenues	[S]				100			
Total Cost = Line [R] - Line [S]	[T]			⑧			⑨	⑩
Alternative Allocation between Fixed and Variable [Note 1]	[U]			⑧	67		⑨	⑩

Fixed rate allocations allowed

Exhibit QVLP CL-2

Quadvest Rebuttal Position

EXHIBIT QVLP CL-2
PUC DOCKET NO. 44809

QUADVEST LP REBUTTAL POSITION

		As Filed (a)	Updates (b)		As Updated (c)	Phase I Without AMRs (d)	Phase II With AMRs (e)	
	Rate Base							
1	Plant in Service	$23,247,933	($178,653)	a	$23,069,280	$23,317,357	($248,077)	a
2	Accumulated Depreciation	$5,402,333	($137,716)	a	$5,264,617	$5,402,333	$137,716	a
3	Net Book Value	$17,845,600			$17,804,663	$17,915,024	($110,361)	
4	Remove Affiliate Plant	($6,405)	$0		($6,405)	($6,405)		
5	AMR Meter Adjustment	$2,070,410	($51,643)	b	$2,018,767		$2,018,767	b
6	6/15 Capital Projects	$58,000	$0		$58,000	$58,000		
7	Working Cash	$605,923	$0		$578,078	$578,078		
8	Materials and Supplies	$137,070	($25,307)	c	$111,763	$111,763		
9	Advances	($1,062,401)	$0		($1,062,401)	($1,062,401)		
10	CIAC	($5,453,491)	$125,767	d	($5,327,724)	($5,327,724)		
11	**Total Rate Base**	**$14,194,706**			**$14,174,741**	**$12,266,335**	**$1,908,406**	
12	**Return**	**$1,209,509**			**$1,207,808**	**$1,045,195**	**$162,612**	
	O&M Expenses							
13	Salaries and Wages	$2,098,124	$0		$2,098,124	$2,098,124		
14	Contract Labor	$69,899	$0		$69,899	$69,899		
15	Purchased Treatment	$15,532	$0		$15,532	$15,532		
16	Chemicals	$164,858	$0		$164,858	$164,858		
17	Utilities	$529,931	$0		$529,931	$529,931		
18	Repairs/Maint./Supplies	$852,407	($182,967)	e	$669,440	$865,132	($195,692)	h
19	Office Expenses	$615,536	$0		$615,536	$615,536		
20	Accounting & Legal	$94,777	$0		$94,777	$94,777		
21	Insurance	$338,086	$0		$338,086	$338,086		
22	Rate Case Expense	$39,793	($39,793)	f	$0	$0		
23	Misc.	$28,441	$0		$28,441	$28,441		
24	Total O&M	$4,847,383			$4,624,623	$4,820,315	($195,692)	
26	Payroll Taxes	$138,279	$0		$138,279	$138,279		
27	Property Taxes	$179,526	$0		$179,526	$179,526		
28	Depreciation Expense	$981,764	($8,882)	g	$972,882	$781,666	$191,216.70	
30	Income Taxes	$471,937			$471,273	$407,824	$63,449	
31	Total Expenses After Tax	$6,618,888			$6,386,583	$6,327,608	$58,974	
32	**Total Return & Expenses**	**$7,828,397**			**$7,594,390**	**$7,372,804**	**$221,587**	
33	Other Revenues	$783,408	$0		$783,408	$783,408		
34	**Revenue Requirement**	**$7,044,989**	**($234,007)**		**$6,810,982**	**$6,589,396**	**$221,587**	
35	Requested Return on Equity	12.10%			12.10%	12.10%	12.10%	
36	Weighted Cost of Debt	2.35%			2.35%	2.35%	2.35%	
37	Weighted Return	6.17%			6.17%	6.17%	6.17%	
38	**Rate of Return**	**8.52%**			**8.52%**	**8.52%**	**8.52%**	

a Staff Adjustment W/P 2 $69,424 remove expenses to capitalize and removal of old meters $248,007 and AD $137,716
b As Requested AMR $2, 070,410 - Update $2,043,767 = $26,643 Reduction + 25,000 Salvage Revenue = $51,643 Reduction
c Remove ground water reduction fees booked to prepaids per Staff Adjustment
d Staff Adjustment Per Scaff
e Staff Adjustment W/P 2 Remove $69,424 of expenses to capitalize and $113,543 AMR Savings per QVLP Rebuttal
f Remove rate case Expense amortization to be surcharged
g AMR cost adjustment - $5,164 - $10,660 old meter removal + $6,942 depre on capitalized expenses per Staff Adjustment W/P 2
h Meter reading costs removal of -$82,149 - $113,543 additional savings estimate per Rebuttal