## PENNICHUCK*

# STATE OF NEW HAMPSHIRE <br> BEFORE THE PUBLIC UTILITIES COMMISSION 

Docket No. DW 19-084
Pennichuck Water Works Inc.
Request for a Change in Rates

## DIRECT TESTIMONY

OF

## GREGG H. THERRIEN

June 27, 2019

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I. INTRODUCTION
Q. Please state your name, address, and position.
A. My name is Gregg H. Therrien. I am an Assistant Vice President with Concentric Energy Advisors, Inc. ("Concentric"), 293 Boston Post Road West, Suite 500, Marlborough, Massachusetts. My professional qualifications and experience are provided in Attachment GHT-1 to this testimony.
Q. Have you testified previously before the New Hampshire Public Utilities Commission ("NHPUC" or the "Commission")?
A. Yes, I have. I previously provided written and oral testimony in Docket No. DG 17-048, Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities’ ("EnergyNorth") distribution service rate case. I have also filed direct testimony in Docket No. DE 19-064, Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities distribution service rate case.

## Q. Have you previously provided consulting service and rate support for water utilities?

A. Yes. I have provided rate reviews, power purchasing strategies, and regulatory consulting services for the Connecticut Water Company. Additionally, our firm is
currently engaged with San Jose Water and the Connecticut Water Company, supporting their proposed merger in regulatory proceedings in Connecticut and Maine.

## Q. What is your responsibility in this proceeding?

A. In this proceeding, I am responsible for conducting an Allocated Cost of Service Study ("ACOS") for Pennichuck Water Works, Inc. ("Pennichuck", "PWW" or "the Company").

## Q. Please describe Concentric.

A. Concentric is an economic advisory and management consulting firm, headquartered in Marlborough, Massachusetts, which provides consulting services related to energy industry transactions, energy market analysis, litigation, and regulatory support. Our regulatory economic and market analysis services include utility ratemaking, including allocated and marginal cost of service studies, rate design, revenue requirements, and other services in support of general rate cases. Our regulatory services also include energy market assessments, market entry and exit analysis, corporate and business unit strategy development, demand forecasting, resource planning, and energy contract negotiations. Our financial advisory activities include both buy and sell side merger, acquisition and divestiture assignments, due diligence and valuation assignments, project and corporate finance services, and transaction support services. In addition, we provide litigation support services on a wide range of financial and economic issues on behalf of clients throughout North America.
Q. What is the purpose of your testimony in this proceeding?
A. The purpose of my testimony is to explain the ACOS study prepared on behalf of Pennichuck. ACOS studies perform an important task in establishing just and reasonable
rates. Allocating the Company's proposed revenue requirements (or cost of service) to the individual rate classes provides the Company with valuable cost-based insight to assist in establishing rates for each of these classes of customers. ACOSs are used by gas, electric, and water utility industries; the concepts used in ACOSs are common to all utility industries.

## Q. Were Attachments ACOS-1 through ACOS-7 and Attachments ALLOC-1 through

 ALLOC-5 (collectively, the "ACOS Exhibits") prepared by you or under your directsupervision?
A. Yes.

## II. ACOS PRINCIPLES FOR WATER UTILITIES

Q. Please describe the principle factors that govern water ACOS studies.
A. An ACOS is a critical tool used to establish just and reasonable rates, which collect the pro forma revenue requirements as submitted by Pennichuck. Proper cost allocation is based on system design and customer usage with the goal of representing the true cost to serve each individual class for the use of the water distribution system. The purpose of the ACOS is to allocate the overall revenue requirements to the rate classes. The ACOS does so in a manner that reflects the relative costs of providing service to each class and avoids unjust or undue discrimination between rate classes. This is accomplished through analyzing variable and fixed costs associated with service provided to each customer class and assigning each customer or rate class its proportionate share of the utility's total cost of service, i.e., the utility's total revenue requirement. The results of ACOS studies can be utilized to determine the relative cost of service for each customer class and to help determine the individual class revenue responsibility. Rate design is the
product of ACOS consultation, customer rate gradualism considerations, efficiency, simplicity, continuity of rates, fairness between rate classes and corporate earnings stability. ${ }^{1}$ The Company's proposed rate design is described in detail in the pre-filed testimony of Mr. Donald Ware.

## Q. Please provide an overview of the ACOS cost allocation methodology used in your study.

A. Consistent with Pennichuck's past cost of service studies, the base-extra capacity method was primarily used to allocate the various components of the revenue requirement in my study. ${ }^{2}$ This methodology allocates the cost of providing water service to the rate classes based on each classes' use of the commodity (the actual water), various facilities (e.g., pumps, mains, etc.), and services (the physical service lines, meters and appurtenances). The American Water Works Association ("AWWA") recognizes the base-extra capacity method as a "fair and equitable" means of distributing the total revenue requirements in proportion to each class's contribution to the cost of the system. ${ }^{3}$ The functionalization and class allocation methodologies used in this study are discussed in detail in Section III below.

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## III. ACOS STUDY METHODOLOGY

## A. Introduction

Q. Please describe the Company's pro forma revenue requirements.
A. PWW provided Concentric with several important documents. First, PWW provided us with their 2018 Annual Report filed with the Commission. This report served as a guide to the detailed accounts used to accumulate costs in the test year. Additionally, the Company's pro forma revenue requirements build off of these 2018 actual costs, adjusting for known and measurable changes. The ACOS relies on this pro forma revenue requirement, in its account-level detail, to allocate specific costs to the rate classes.

## Q. What are the major components of the Company's revenue requirements?

A. Unlike most investor-owned utilities ("IOU's"), Pennichuck is wholly-owned by a single investor, the City of Nashua, NH (the "City"). The City owns the single share of the Company, under-pinned by the issuance of City bonds. Pennichuck' s revenue requirements are comprised of repayment of these City bonds (herein referred to as the "City Bond Fixed Revenue Requirement", or "CBFRR"), as well as more traditional costs such as Operations and Maintenance ("O\&M") expenses, taxes, and interest. Lastly, Special Contract Revenues are treated as a deduction to revenue requirements for purposes of the ACOS.

## Q. Does the Company have a rate base revenue requirement?

A. Yes, but it is not recovered through traditional revenue requirements as with traditional IOUs. Pennichuck' s rate base is supported by the combination of the City bond proceeds
and Company-issued debt. Rate base depreciation and return are not part of the revenue requirement per se; rather, revenue requirements related to net plant are based on recovery of the CBFRR and debt service. This is described in detail in Mr. Ware's testimony.
Q. Does the unique build-up of PWW's revenue requirement affect the ACOS methodology?
A. No, it doesn't. Concentric uses the Company's rate base accounts to derive cost allocation factors. The cost allocation factors are then applied to the CBFRR, the Debt Service Revenue Requirement ("DSRR 1.0"), and the 10\% Debt Service Reserve Revenue Requirement ("0.1 DSRRR").

## B. Special Contract Customers

## Q. Please explain how special contract customers are treated in the ACOS and why these proceeds are treated as a deduction to the revenue requirement.

A. Special contracts, by their nature, are the result of arms-length negotiations. The purpose of a special contract is to provide service to a large facility or water system that is: 1) not willing to pay a standard General Metered rate given its ability to utilize alternative supply at a cheaper price; and 2) provides incremental revenues in excess of the marginal cost to serve that special contract customer. These incremental revenues provide a benefit to the General Metered customers through an offset to the revenue requirements necessary to operate, maintain, and invest in, the utility water system. Further, special contract customers' rates include a fixed fee component, which is based on the negotiated contract price and cannot be changed until contract expiration. Because of this unique arrangement, it is logical to exclude special contracts as a stand-alone class in the ACOS.

Furthermore, assignment of the full revenue requirements to the core customer groups General Metered, Public and Private Fire - results in costs being allocated to the customers that cause those costs to be incurred in the first place. Low investment, marginal-cost priced special contract revenue is best applied as an offset to the General Metered class rates in recognition of that the General Metered class pays for the overall system deliverability. This approach addresses not being able to establish a separate class for special contract customers. A separate class for special contracts is moot because the special contracts have set, fixed prices for the remaining term of the contract, and as such, cannot be changed. Another distinguishing factor is that special contract customers have traditionally paid for these specific investments through a Contribution In Aid of Construction ("CIAC") whereas other customer classes have not. Such investments include dedicated pipes that do not rely on the existing core system for service. Certainly, special contract customers do receive the benefit of being a customer of the utility, whereby they receive metering information, billing information, maintenance on pipes and appurtenances and the like; however, the revenues charged to these customers more than offset these costs. Therefore, crediting this revenue back to the General Metered class is both efficient and accurate for purposes of the ACOS.

## C. Cost Allocators

## Q. Please summarize the major cost allocators deployed in the ACOS.

A. There are two types of cost allocators: functional allocators and class allocators. Functional allocators are used to assign various costs to specific functional categories and the class allocators are then utilized to allocate these functionalized costs to the three rate classes. Functional allocators allocate costs to the following cost functions:

1) Base;
2) Extra;
3) Customer; and
4) Fire.

Class allocators allocate costs to the rate classes:

1) General Metered;
2) Municipal Fire, and
3) Private Fire.

## 1. Functional Allocators

## Q. How are costs allocated to the functions?

A. The Company accumulates costs according to the Uniform System of Accounts for Water Utilities. ${ }^{4}$ Each of these individual accounts is assigned a functional allocator from the following list:

1) Base Cost;
2) Base / Excess Capacity Maximum Day;
3) Base / Excess Capacity Maximum Hour;
4) Customer Service and Billing;
5) Meters;
6) Services, and
7) Fire Hydrants.

## Q. Please describe the methodology to calculate the Base and Extra Capacity Functional Allocators.

A. The Base and Extra Capacity allocators (including Extra Maximum Day and Extra Maximum Hour) are calculated using the Company's actual metered annual usage, converted to Millions of Gallons per Day ("MGD"). ${ }^{5}$ Maximum Daily usage was provided by the Company, which was derived from metered data for the General Metered customer class and was estimated for the remaining classes. Excess Maximum Day is

[^1]equal to the Maximum Day less the Average Day. The split between Base and Maximum day Extra Capacity is calculated by comparing the ratio of average day usage to Maximum Daily usage and the ratio of Excess Maximum day to Maximum Daily usage. Excess Maximum Hour is similarly calculated, whereby the percentage of Maximum Day is established based on Company data for the General Metered class and estimated for the remaining water service customers. The split between Base and Maximum Hour Extra Capacity is calculated by comparing the ratio of average day usage to Maximum Hourly usage and the ratio of Excess Maximum Hour to Maximum Hourly usage. Fire service MGD, Maximum Day and Maximum Hour factors are based on factors provided by the Company. The result is a Base-Excess Max Day split of $47 \% / 53 \%$, and a Base-Excess Max Hour split of $23 \% / 77 \%$. For plant costs allocated using a combination of Base, Daily Excess Capacity, and Hourly Excess Capacity, a composite allocation of 23\%/26\%/51\% is used. Support for these calculations are included in Attachments ALLOC-1 and ALLOC-4. ALLOC-1 provides details regarding the Base and Extra Capacity functional allocators while ALLOC-4 provides details regarding factors used to allocate cost functionalized to base, extra day, and extra hour to the rate classes.

## Q. Please explain the Customer Service and Billing functional allocation factor.

A. This allocation factor is used to directly assign costs in certain accounts to the Customer Service and billing function. Examples include account no. 902 (Meter Reading Expense), account no. 903 (Customer Records and Collection Expense) and account no. 904 (Uncollectible Accounts Expense).

## Q. How are the Meter and Services functional allocators calculated?

A. Similar to the Customer Service and Billing functional allocator, the Meters and Services functional allocators are used to directly assign costs in certain accounts to these functions. Examples of meter directly assigned costs include account no. 663 Meter Expenses and account no. 676, Maintenance of Meters. Service-related directly assigned costs include account no. 664, Customer Installations Expense and account no. 675, Maintenance of Services.

## Q. How is the Fire Hydrants functional allocator derived?

A. The Fire Hydrants functional allocator is a binary allocator that directly assigns costs to the Fire Hydrant function, such as account no. 677 Maintenance of hydrants.

## 2. Customer Class Allocators

## Q. How are costs allocated to the individual rate classes?

A. Class allocators allocate costs to the specific classes. The class allocators are:

1) Base Cost (MGD);
2) Extra Capacity - Maximum Day (MGD)
3) Extra Capacity - Maximum Hour (MGD)
4) Number of Customers;
5) Number of Bills;
6) Revenues;
7) Meters;
8) Weighted Cost of Services, and
9) Fire Hydrants.
Q. Please explain the Number of Customers, Number of Bills and Revenues class allocators.

These allocators are equal to the test year actual figures for these categories. Each of these class allocators will assign costs (maintained at the uniform system of accounts
level) to the individual rate classes. Examples include account no. 904, Uncollectible Accounts (allocated based on number of customers), account no. 903, Customer Records and Collection Expense (Number of bills), and account no. 461, Water Sales (Revenues). These test year figures are detailed in Attachment ALLOC-2 (usage, customers and bills) and Attachment ALLOC-5 (revenues).

## Q. Please explain the Base Cost, Extra Capacity - Max Day, and Extra Capacity - Max Hour class allocators.

A. The Base Cost, Extra Capacity - Max Day, and Extra Capacity - Max Hour class allocators are used to allocate costs functionalized as Base Cost, Maximum Day Extra Capacity, and Maximum Hour Extra Capacity, respectively. The calculations detailing the development of these allocators are provided in Attachment ALLOC-4.

## Q. How is the weighted cost of services Class allocator calculated?

A. The weighted cost of services allocator is used to allocate costs (including plant and O\&M) functionalized as services to the rate classes. This allocator utilizes unit costs for each service size deployed by the Company. These unit costs are then divided by the unit cost for a $3 / 4$-inch service line to derive a cost weighting factor. The $3 / 4$-inch service is the most common and least expensive service and was the best choice to use as the base unit to factor against. Stated differently, the $3 / 4$-inch service lines have a weighting factor of 1.00 while other services have weighting factors that progressively increase from the 1inch service line ( 1.02 weighting factor) up to the 16 -inch service line (weighting factor of 4.57). These weighting factors are then multiplied times the number of services to create weighted service costs, which form the basis for the allocations to the rate classes. These calculations are detailed in Attachment ALLOC-3.
Q. How are meters assigned in the ACOS?
A. Meter costs are directly assigned to the General Metered class only, as the Municipal and Private fire classes are not metered.
Q. How does the ACOS utilize the fire hydrant Class allocator?
A. The fire hydrant allocator directly assigns all fire hydrant costs to the Municipal Fire rate class. All Private Fire customers own their own hydrants and are therefore excluded from this cost assignment.

## 3. Internal Allocators

## Q. What is the purpose of internal allocators?

A. There are various indirect cost items related to overheads such as intangible plant and general plant, as well as administrative and general expenses that cannot be directly assigned to a particular function. These items were allocated to functions based on the relative amount of certain costs that have been directly-assigned to each function. The internally developed functional allocators ("internal allocators") used to assign overhead costs have been selected to reflect the type of direct costs that each overhead account generally supports. An example of such allocator is the "NET_PLANT" allocator, which is derived based on the sum of all of the individual allocations to each gross plant and depreciation reserve account number. This allocator is used to allocate the CBFRR, DSRR 1.0, 0.1 DSRRR, Amortization expense and income taxes.

## D. Model Runs

## Q. At a high level, how does the ACOS model work?

A. The ACOS is an iterative model that calculates both functional and class cost allocations simultaneously. This is an iterative process because internal allocators are a function of how line item costs are allocated using the external allocators. Each time a change is made to a dollar value, an external or internal allocator value, or a different functional or class allocator is used, the model must be "run". The Microsoft Excel © file utilizes a macro to effectuate the updates without creating a circular reference error. This logic enables the cost analyst to change cost allocators often, producing alternative scenarios to review for accuracy and reasonableness.
Q. What functional and class allocators were chosen for each cost element?
A. Attachment ACOS-5 provides the allocators chosen for each element. The first allocation column represents the functional allocator, while the next eight columns show the class allocations by the functionalized category. This is another example of why the ACOS is designed as an iterative model.

## IV. ACOS RESULTS

## A. Summary Class Allocation Results

Q. What are the class allocated results for each rate class?
A. Attachment ACOS-1 is the Class summary report from the ACOS. This report shows how rate base was allocated among the classes (lines 1-4); revenues at current rates (lines 5-10), and the proposed revenue requirement components (lines 11-21). The difference between the allocated revenue requirement and current rates results in a (deficiency) or
surplus for each customer class (line 22). This is an important calculation when considering changes to revenue allocation among the rate classes. Those with deficiencies above the system average may require a higher relative percentage increase than those classes with below average deficiency or a surplus. This is summarized as follows:

Table 1: Allocated Pro Forma Revenue Requirements

$\left.$|  |  | Pro Forma <br> Revenues at <br> Present Rates | Revenue <br> Requirements | (Deficiency) / <br> Surplus |
| ---: | ---: | ---: | ---: | ---: | | (Deficiency) |
| ---: |
| /Surplus \% | \right\rvert\,

## Q. Please discuss these results.

Table 1 indicates an overall revenue increase of $\$ 3.8$ million (11.91\%) is required. Of that increase, the ACOS indicates that the majority of the dollars should be recovered from the General Metered class. Although the total dollars are the highest for this class, the class percentage increase is the lowest at $7.75 \%$. The highest percentage increase, based on the ACOS results, should come from the Private Fire Protection customers at $71.37 \%$. The Municipal Fire Protection class also shows an above-average revenue deficiency at $23.67 \%$. These results are driven by the individual allocators chosen within the study based on cost-causation, discussed below.

## Q. Did Concentric prepare a functional revenue requirement summary by rate class?

A. Yes, Attachment ACOS-2 is a functional summary of the major components of the revenue requirement: CBFRR, O\&M, Amortization, DSRR 1.0, 0.1 DSRRR and taxes (income and other). This functional cost exhibit displays each rate class' cost responsibility for base costs, extra capacity costs (by max day and max hour), customer service and billing, meters, service lines and fire hydrants.

Attachment ACOS-3 is a more detailed summary of the functional revenue requirement.
The following table, based on information contained on lines 36 through 43 of
Attachment ACOS-3, summarizes this information:
Table 2: Class Allocations

| Allocator | System Total | General Metered Service | Municipal Fire Protection | Private Fire Protection |
| :---: | :---: | :---: | :---: | :---: |
| Base Cost | \$ 12,742,484 | \$ 12,630,223 | \$ 82,719 | \$ 29,542 |
| Extra Capacity - Max Day | \$ 8,917,200 | \$ 7,024,060 | \$ 1,380,976 | \$ 512,164 |
| Extra Capacity - Max Hour | \$ 8,888,413 | \$ 5,431,541 | \$ 2,137,525 | \$ 1,319,348 |
| Customer Service \& Billing | \$ 859,269 | \$ 838,630 | \$ 113 | \$ 20,527 |
| Meters | \$ 1,468,962 | \$ 1,468,962 | \$ | \$ |
| Service Lines | \$ 2,348,781 | \$ 2,137,417 | \$ | \$ 211,365 |
| Fire Hydrants | \$ 706,405 | \$ | \$ 706,405 | \$ |
| Total Revenue Requirement | \$ 35,931,515 | \$ 29,530,832 | \$ 4,307,737 | \$ 2,092,946 |
|  |  |  |  |  |
| Base Cost | 35\% | 43\% | 2\% | 1\% |
| Extra Capacity - Max Day | 25\% | 24\% | 32\% | 24\% |
| Extra Capacity - Max Hour | 25\% | 18\% | 50\% | 63\% |
| Customer Service \& Billing | 2\% | 3\% | 0\% | 1\% |
| Meters | 4\% | 5\% | 0\% | 0\% |
| Service Lines | 7\% | 7\% | 0\% | 10\% |
| Fire Hydrants | 2\% | 0\% | 16\% | 0\% |
| Total Revenue Requirement | 100\% | 100\% | 100\% | 100\% |

Source: ACOS-3 Lines 5-12.
As Table 2 indicates, those classes with higher percentages of cost allocation to Extra Capacity incur the most costs. For example, the Company's Plant, Structures and Equipment accounts, the Water Treatment Plant accounts, and Transmission and Distribution Mains account are all allocated based on max day. The Pumping equipment accounts, Distribution Reservoir and Standpipes Account and the Transmission and Distribution Mains account all have substantial plant allocated based on max hour. It is logical that the Municipal and Private Fire Protection classes would incur a high percentage of these costs given the nature of the service that these classes provide. That
logic is illustrated by the fact that Municipal Fire Protection is allocated $50 \%$ and Private Fire Protection is allocated 63\% of the Extra Capacity-Max Hour.

## Q. How can this functional information be utilized in rate design?

These functions help determine how costs should be collected, either through the fixed or variable charge. Attachment ACOS-3 also includes a unit cost summary. Lines 46 through 51 show the functional costs on a unit basis. Base costs, which represent primarily the variable commodity cost of water service, is divided by annual CCF usage for each class to derive a volumetric unit cost. The remaining functionalized costs are divided by the number of annual bills for each class, deriving a monthly fixed unit cost. Lines 46 through 54 represent three different summations of these fixed costs for purposes of assisting in the fixed monthly charge rate design. These three summations are:

1) Direct Customer Costs - the sum of meters and service line unit costs;
2) Direct plus Customer Service and Billing - adds the results from summary 1) and customer service and billing costs, and
3) Total Customer and Extra Capacity Costs - Adds the extra capacity unit costs to summary 2) to derive total monthly customer-related fixed costs.

These unit costs are summarized as follows:

Table 3: Unit Costs

| R e f. | Revenue Requirement | General Metered Service | Municipal Fire Protection | Private Fire Protection |
| :---: | :---: | :---: | :---: | :---: |
|  | Base Cost (\$ / CCF) | \$2.87 | \$2.87 | \$2.87 |
|  | Extra Capacity Cost (\$ / Bill) | \$37.13 | \$58,641.69 | \$167.54 |
|  | Customer Service \& Billing (\$ / Bill) | \$2.50 | \$1.88 | \$1.88 |
|  | Meters (\$ / Bill) | \$4.38 | \$0.00 | \$0.00 |
|  | Service Lines (\$ / Bill) | \$6.37 | \$0.00 | \$19.33 |
|  | Fire Hydrants (\$ / Bill) | \$0.00 | \$11,773.41 | \$0.00 |
|  |  |  |  |  |
| 1 | Direct Customer Costs | \$10.75 | \$0.00 | \$19.33 |
| 2 | Direct plus Customer Service \& Billing Customer Costs | \$13.25 | \$1.88 | \$21.21 |
| 3 | Total Customer Costs + Extra Capacity Costs | \$50.38 | \$58,643.57 | \$188.75 |

## B. Fixed Versus Variable Cost Summary

Q. Has an analysis of total system costs, split by fixed and variable costs, been performed?
A. Yes. Using the functionalized cost information from Attachment ACOS-5 certain known variable costs were selected to derive the fixed/variable cost split:

Table 4: Fixed and Variable System Costs

|  | ACOS \$ | Percent |
| :--- | ---: | ---: |
| Total Revenue Requirement | $\$ 35,931,515$ | Source: |
|  |  | ACOS-1 Line 19 |
| Variable Costs: |  |  |
| Purchased water | $\$ 472,407$ |  |
| Energy Portion of Fuel or Power Purchased for |  | Account no. 602 |
| Pumping | $\$ 1,152,305$ |  |
| Chemicals | $\$ 908,981$ |  |
| Sludge Disposal | $\$ 378,140$ |  |
| Total Variable Costs | $\$ 2,911,833$ | $\mathbf{8 . 1 \%}$ |
| Total Fixed Costs |  | $\mathbf{9 1 . 9 \%}$ |

As Table 4 indicates, the vast majority ( $91.9 \%$ ) of PWW's revenue requirement is fixed.
An alternative calculation using the functionalized Base O\&M expenses shown on Attachment ACOS-2 (line 6 column C) shows a variable cost of \$6,320,669. Dividing this figure by the total system revenue requirement of $\$ 35,931,515$ yields a variable
percentage of $17.6 \%$ and a fixed percentage of $82.4 \%$. This relationship between fixed and variable costs is considered in the Company's rate design proposal, as discussed in Mr. Ware's testimony.

## V. USE OF THE ACOS IN RATE DESIGN

Q. Have you prepared an exhibit to assist in the Company's proposed rate design?
A. Yes, I have. Exhibit ACOS-7 calculates proposed volumetric revenues for all classes and special contract customers as well as General Meter class meter revenues (by meter size) by applying the system average increase of $7.8 \%$ to current rates. This exhibit forms the foundation for the Company's proposed rate design as detailed in Mr. Ware's testimony.

## VI. CONCLUSION

## Q. Please summarize your testimony.

A. Concentric has performed an ACOS study on behalf of Pennichuck that comports with industry standards, the AWWA guidance, and past cost of service studies filed with the Commission. The Company's pro forma revenue requirements were functionalized then allocated to the rate classes using the base-extra capacity methodology. The ACOS supports an above-average rate increase to the Municipal and Private Fire Protection classes based on their above-average allocation of Base-Excess costs. Additionally, the ACOS shows that the Company's fixed costs are between $82.4 \%$ to $91.9 \%$, representing the vast majority of system costs.

## Q. Does this complete your testimony?

A. Yes, it does.

GREGG H. THERRIEN

Assistant Vice President

Gregg Therrien is a former utility Director who has held leadership positions at Connecticut Natural Gas Corporation and affiliated companies for more than 19 years. Most recently, he served as the Director, Gas Construction at Connecticut Natural Gas and The Southern Connecticut Gas Company and Director, Regulatory \& Tariffs at UIL Holdings, Inc. Mr. Therrien's experience includes natural gas distribution system operations and construction practices, regulatory strategies, natural gas growth, infrastructure replacement programs, integrated resource planning and technical rate case issues such as utility cost of service, rate design, tariff writing and administration, as well as pricing, gas cost accounting, gross margin, and load forecasting for regulated utilities. Mr. Therrien has an M.B.A. from the University of Connecticut and a B.S. in Finance from Bryant University, and is also a certified Project Management Professional (PMP).

## REPRESENTATIVE PROJECT EXPERIENCE

Representative responsibilities performed for Connecticut gas utilities include:

## Regulatory Affairs

- Led the preparation, filing, discovery and implementation of several rate cases
- Designed rates and prepared testimony, and served as the primary rate design witness
- Prepared, testified, and implemented revenue requirement rate mechanisms for new customer growth and pipeline replacement programs
- Prepared gas Integrated Resource Plans
- Prepared assessment of forecast methodology and forecast accuracy of gas demands
- Prepared validation of sales forecast and analysis of declining use per customer
- Proposed, testified, and implemented Connecticut's first gas decoupling mechanism
- Key contributor in settlement negotiations for rate cases and other litigated regulatory matters, including the LDC gas expansion plan
- Prepared testimony and exhibits for bi-annual Purchased Gas Adjustment proceedings
- Prepared testimony and new program tariffs in support of gas unbundling

Business Strategy and Operations

- Led a newly-created gas construction organization, leveraging project management practices to plan and execute a $\$ 100 \mathrm{M}$ annual capital budget
- Responsible for RFP development and bid selection of five-year contracts of local, regional and national gas construction and restoration contractors representing approximately 70 work crews
- Developed and implemented a tablet-based QA/QC inspection program
- Developed annual sales and revenue operating budgets
- Developed rate of return new customer acquisition model
- Led several process improvement teams
- Successfully negotiated contracts with large cogeneration users avoiding system bypass and obtaining regulatory approval


## Consultancy

- Regulatory risk assessments
- Gas infrastructure replacement program technical and financial analysis and testimony
- Market analysis for international clients
- M\&A due diligence (regulatory)
- Electric distribution alternative rate plan analysis
- Economic Development tariff development
- Decoupling testimony assistance for a Western Gas LDC
- Decoupling and Rate Design expert witness testimony for a New England Gas LDC
- Revenue Requirements witness for an electric distribution company
- Regulatory rate strategies for a vertically-integrated electric utility
- Testified on behalf of a New England gas LDC on the subjects of decoupling, capital trackers and rate design
- Developed an Alternative Rate Plan for a New England gas LDC
- Rate comparison study for the Government of Alberta, Canada
- Developed a cost of service-based pricing model for a 10MW fuel cell developer
- Power procurement consultancy for a New England investor-owned water utility


## PROFESSIONAL HISTORY

Concentric Energy Advisors, Inc. (2016 - Present)
Assistant Vice President
AVANGRID and affiliated companies (2016)
Connecticut Natural Gas and The Southern Connecticut Gas Company (2014-2016)
Director, Gas Construction
UIL Holdings, Inc. (2010-2014)
Director, Regulatory \& Tariffs
Iberdrola S.A. / Energy East Corporation / Connecticut Natural Gas and The Southern
Connecticut Gas Company (2001-2010)
Director, Regulatory \& Pricing / Director, Pricing \& Analysis
Connecticut Natural Gas Corporation (1997-2001)
Manager, Pricing
United Technologies, Inc. - Pratt \& Whitney
Turbo Power \& Marine Systems (1996-1997)
Manager, Financial Planning \& Analysis

## Pratt \& Whitney Aircraft

Business Unit Cell Leader, Overhaul \& Repair / Manufacturing - turbine airfoils (1994-1996)
Financial Analyst, Commercial Engine Business (1987-1994)

## EDUCATION

University of Connecticut
M.B.A., Concentration in Finance, 1993

Bryant University (College)
B.S., Finance, 1987

## PROFESSIONAL AFFILIATIONS

American Gas Association
State Affairs Committee, 2001 - Present
Northeast Gas Association
Project Management Institute
Guild of Gas Managers

## CERTIFICATIONS

Certified Project Management Professional (PMP)

## LEADERSHIP

## Connecticut Economic Resource Center (CERC)

Member, Board of Directors 2008-2011
Treasurer, 2011-2016
Connecticut Power and Energy Society (CPES)
Executive Secretary and Director, 2018 - Present
Member, Board of Directors 2017-2018
AGA Executive Leadership Development Program - 2012

| SPONSOR | DATE | DOCKET | SUBJECT |
| :---: | :---: | :---: | :---: |
| Connecticut Public Utilities Regulatory Authority |  |  |  |
| Yankee Gas Services (Eversource Energy) | 2018 | Docket No. $18-05-10$ | Distribution Rate Case <br> Rate design, decoupling, and capital trackers |
| Connecticut Natural Gas Corporation \& Southern Connecticut Gas Company | 2016 | Docket No. $16-04-10$ | State of Connecticut LDC Gas Expansion Plan: System Expansion Reconciliation Capital Expenditures, System Improvement/Reinforcement Projects |
| Connecticut Natural Gas Corporation \& Southern Connecticut Gas Company | 2014 | $\begin{aligned} & \text { Docket No. } \\ & \text { 13-06- } \\ & \text { 02RE01 } \end{aligned}$ | State of Connecticut LDC Gas Expansion Plan Settlement Agreement |
| Connecticut Natural Gas Corporation \& Southern Connecticut Gas Company | 2013 | Docket No. $13-06-02$ | State of Connecticut LDC Gas Expansion Plan Rates, Hurdle Rate analysis, Demand forecast, Rate Mechanism |
| Connecticut Natural Gas Corporation | 2013 | Docket No. 13-06-08 | Distribution Rate Case <br> Revenue Requirements, Cost of Service, Rate Design, Demand Forecast, and Forecasted Revenues; Decoupling, DIMP and System Expansion Reconciliation Rate Mechanisms, Tariffs |
| The Southern Connecticut Gas Company | 2013 | Docket No. 99-10- <br> 25RE01 | Firm Transportation Service Agreement and Gas Exchange Agreement <br> - Review of Revenue Requirement Allocation |
| Connecticut Natural Gas Corporation \& Southern Connecticut Gas Company | 2011 | $\begin{aligned} & \text { Docket No. } \\ & \text { 08-12- } \\ & \text { 06RE02, 08- } \\ & \text { 12-07RE02 } \end{aligned}$ | Settlement Agreement RE: Resolve Stayed Decisions and Orders from Appealed CNG and SCG Rate Cases, and resolve SCG overearnings |
| The Southern Connecticut Gas Company | 2011 | $\begin{aligned} & \text { Docket No. } \\ & \text { 10-12-17 } \end{aligned}$ | Just and Reasonable Rates - Potential Overearnings Investigation |
| Illinois Commerce Commission |  |  |  |
| The Peoples Gas Light \& Coke Company | 2017 | Docket No. $16-0376$ | Gas Distribution Aging Infrastructure Peer Utility Benchmark Study, Affordability |
| Maine Public Utilities Commission |  |  |  |
| Emera, Maine | 2017 | Docket No. 2017-00198 | Electric Distribution Revenue Requirements |
| New Hampshire Public Utilities Commission |  |  |  |
| Liberty Utilities - New Hampshire d/b/a/ EnergyNorth Natural Gas | 2017 | DG 17-048 | Revenue Decoupling Rate Design |


| $\begin{gathered} \text { Line } \\ \text { No. } \end{gathered}$ | Description | System Total |  | General Metered Service |  | Municipal Fire Protection |  | Private Fire Protection |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | General |  | Muni fire |  |  |  |
|  | (A) |  | (B) | (C) |  | (D) |  | (E) |  |
| Rate Base |  |  |  |  |  |  |  |  |  |
| 1 | Plant in Service | \$ | 223,792,339 | \$ | 179,303,955 | \$ | 30,011,773 | \$ | 14,476,610 |
| 2 | Accumulated Reserve |  | (57,983,171) |  | $(46,544,866)$ |  | $(7,804,655)$ |  | $(3,633,649)$ |
| 3 | Net CIAC |  | $(31,657,629)$ |  | $(25,364,309)$ |  | $(4,245,461)$ |  | $(2,047,859)$ |
| 4 | $\underline{\text { Total Net Plant }}$ | \$ | 134,151,539 | \$ | 107,394,780 | \$ | 17,961,657 | \$ | 8,795,102 |
| 5 | Revenues at Current Rates |  |  |  |  |  |  |  |  |
| 6 | Water Revenue | \$ | 29,985,479 | \$ | 25,329,982 | \$ | 3,444,078 | \$ | 1,211,418 |
| 7 | Revenue from Contract Customers | \$ | 1,747,185 | \$ | 1,747,185 | \$ | - | \$ | - |
| 8 | Current Water Revenue | \$ | 31,732,664 | \$ | 27,077,167 | \$ | 3,444,078 | \$ | 1,211,418 |
| 9 | Miscellaneous Revenues |  | 420,712 |  | 355,393 |  | 48,322 |  | 16,997 |
| 10 | Total Revenues | \$ | 32,153,376 | \$ | 27,432,560 | \$ | 3,492,401 | \$ | 1,228,415 |
| 11 | Proposed Revenue Requirement |  |  |  |  |  |  |  |  |
| 12 | City Bond Fixed Revenue Requirement (CBFRR) | \$ | 7,729,032 | \$ | 6,187,463 | \$ | 1,034,846 | \$ | 506,723 |
| 13 | Operations \& Maintenance Expenses |  | 14,739,018 |  | 12,539,197 |  | 1,484,675 |  | 715,146 |
| 14 | Amortization Expense |  | 415,268 |  | 332,442 |  | 55,601 |  | 27,225 |
| 15 | Taxes Other than Income |  | 5,246,023 |  | 4,225,714 |  | 687,976 |  | 332,334 |
| 16 | Debt Service Revenue Requirement (DSRR 1.0) |  | 6,999,023 |  | 5,603,056 |  | 937,105 |  | 458,863 |
| 17 | 0.1 Debt Service Revenue Requirement (0.1 DSRR) |  | 699,902 |  | 560,306 |  | 93,710 |  | 45,886 |
| 18 | Income Taxes |  | 103,249 |  | 82,656 |  | 13,824 |  | 6,769 |
| 19 | Total Revenue Requirement | \$ | 35,931,515 | \$ | 29,530,832 | \$ | 4,307,737 | \$ | 2,092,946 |
| 20 | Miscellaneous Revenues |  | 420,712 |  | 355,393 |  | 48,322 |  | 16,997 |
| 21 | Total Base Revenue Requirement | \$ | 35,510,803 | \$ | 29,175,439 | \$ | 4,259,415 | \$ | 2,075,949 |
| 22 | Total Revenue (Deficiency)/Surplus | \$ | $(3,778,139)$ | \$ | (2,098,272) | \$ | $(815,337)$ | \$ | $(864,530)$ |
| 23 | Increase |  | 11.91\% |  | 7.75\% |  | 23.67\% |  | 71.37\% |
| 24 | Proposed Revenue from Contract Customers |  | 1,837,699 |  | 1,837,699 |  | - |  |  |
| 25 | $\underline{\text { Total Base Revenue Requirement (excl. Revenue from Contract Customers) }}$ | \$ | 33,673,104 | \$ | 27,337,740 | \$ | 4,259,415 | \$ | $\underline{\text { 2,075,949 }}$ |




| Functional Revenue Requirement |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Line } \\ & \text { No. } \end{aligned}$ | Description | System Total |  | General MeteredServiceGeneral |  | Municipal Fire Protection Muni Fire |  | Private Fire Protection Private Fire |  |
|  |  |  |  |  |  |  |  |  |  |
|  | (A) |  | (B) |  | (C) |  | ) |  | (E) |
| Service Lines |  |  |  |  |  |  |  |  |  |
| 26 | Base Cost | \$ | - | \$ | - | \$ | - | \$ |  |
| 27 | Extra Capacity | \$ |  | \$ | - | \$ | - | \$ |  |
| 28 | Customer Costs | \$ | 2,348,781 | \$ | 2,137,417 | \$ | - | \$ | 211,365 |
| 29 | Fire Hydrants | \$ | - | \$ | - | \$ | - | \$ |  |
| 30 | Sub-total | \$ | 2,348,781 | \$ | 2,137,417 | \$ | - | \$ | 211,365 |
| Fire Hydrants |  |  |  |  |  |  |  |  |  |
| 31 | Base Cost | \$ | - | \$ | - | \$ | - | \$ | - |
| 32 | Extra Capacity | \$ | - | \$ | - | \$ | - | \$ |  |
| 33 | Customer Costs | \$ |  | \$ | - | \$ | - | \$ |  |
| 34 | Fire Hydrants | \$ | 706,405 | \$ | - | \$ | 706,405 | \$ |  |
| 35 | Sub-total | \$ | 706,405 | \$ | - | \$ | 706,405 | \$ |  |
| TOTAL |  |  |  |  |  |  |  |  |  |
| 36 | Base Cost | \$ | 12,742,484 | \$ | 12,630,223 | \$ | 82,719 | \$ | 29,542 |
| 37 | Extra Capacity - Max Day | \$ | 8,917,200 | \$ | 7,024,060 | \$ | 1,380,976 | \$ | 512,164 |
| 38 | Extra Capacity - Max Hour | \$ | 8,888,413 | \$ | 5,431,541 | \$ | 2,137,525 | \$ | 1,319,348 |
| 39 | Customer Service \& Billing | \$ | 859,269 | \$ | 838,630 | \$ | 113 | \$ | 20,527 |
| 40 | Meters | \$ | 1,468,962 | \$ | 1,468,962 | \$ | - | \$ | - |
| 41 | Service Lines | \$ | 2,348,781 | \$ | 2,137,417 | \$ | - | \$ | 211,365 |
| 42 | Fire Hydrants | \$ | 706,405 | \$ |  | \$ | 706,405 | \$ |  |
| 43 | Total Revenue Requirement | \$ | 35,931,515 | \$ | 29,530,832 | \$ | 4,307,737 | \$ | 2,092,946 |
| UNITS |  |  |  |  |  |  |  |  |  |
| 44 | Annual Usage |  | 4,441,529 |  | 4,402,399 |  | 28,832 |  | 10,297 |
| 45 | Number of Bills |  | 346,440 |  | 335,448 |  | 60 |  | 10,932 |
| UNIT COST |  |  |  |  |  |  |  |  |  |
| 46 | Base Cost (\$ / CCF) |  |  |  | 2.87 |  | 2.87 |  | 2.87 |
| 47 | Extra Capacity Cost (\$ / Bill) |  |  |  | 37.13 |  | 58,641.69 |  | 167.54 |
| 48 | Customer Service \& Billing (\$/ Bill) |  |  |  | 2.50 |  | 1.88 |  | 1.88 |
| 49 | Meters (\$ / Bill) |  |  |  | 4.38 |  | 0.00 |  | 0.00 |
| 50 | Service Lines (\$ / Bill) |  |  |  | 6.37 |  | 0.00 |  | 19.33 |
| 51 | Fire Hydrants (\$/Bill) |  |  |  | 0.00 |  | 11,773.41 |  | 0.00 |
| 52 | Direct Customer Costs |  |  |  | 10.75 |  | 0.00 |  | 19.33 |
| 53 | Direct plus Customer Service \& Billing Customer Costs |  |  |  | 13.25 |  | 1.88 |  | 21.21 |
| 54 | Total Customer Costs + Extra Capacity Costs |  |  |  | 50.38 |  | 58,643.57 |  | 188.75 |
| UNIT COST After Removal of Contract Revenue |  |  |  |  |  |  |  |  |  |
| $55 \quad \begin{aligned} & \text { Revenue Requirement } \\ & \text { Base Cost }\end{aligned}$ |  |  |  |  |  |  |  |  |  |
|  |  | \$ | 11,803,339 | \$ | 11,692,246 | \$ | 81,791 | \$ | 29,302 |
| 56 | Extra Capacity - Max Day | \$ | 8,375,912 | \$ | 6,502,422 | \$ | 1,365,485 | \$ | 508,005 |
| 57 | Extra Capacity - Max Hour | \$ | 8,450,351 | \$ | 5,028,170 | \$ | 2,113,548 | \$ | 1,308,633 |
| 58 | Customer Service \& Billing | \$ | 796,821 | \$ | 776,349 | \$ | 111 | \$ | 20,361 |
| 59 | Meters | \$ | 1,359,871 | \$ | 1,359,871 | \$ | - | \$ | - |
| 60 | Service Lines | \$ | 2,188,331 | \$ | 1,978,683 | \$ | - | \$ | 209,648 |
| 61 | Fire Hydrants | \$ | 698,480 | \$ | - | \$ | 698,480 | \$ | - |
| 62 | Total Revenue Requirement | \$ | 33,673,104 | \$ | 27,337,740 | \$ | 4,259,415 | \$ | 2,075,949 |
| UNITS |  |  |  |  |  |  |  |  |  |
| 63 | Annual Usage |  | 4,441,529 |  | 4,402,399 |  | 28,832 |  | 10,297 |
| 64 | Number of Bills |  | 346,440 |  | 335,448 |  | 60 |  | 10,932 |


| Functional Revenue Requirement |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Line <br> No. | Description | System Total | General Metered <br> Service <br> General | $\begin{gathered} \hline \text { Municipal Fire } \\ \text { Protection } \\ \hline \text { Muni Fire } \\ \hline \end{gathered}$ | Private Fire Protection Private Fire |
|  |  |  |  |  |  |
|  | (A) | (B) | (C) | (D) | (E) |
| UNIT COST |  |  |  |  |  |
| 65 | Base Cost (\$/CCF) |  | 2.66 | 2.84 | 2.85 |
| 66 | Extra Capacity Cost (\$ / Bill) |  | 34.37 | 57,983.87 | 166.18 |
| 67 | Customer Service \& Billing (\$ / Bill) |  | 2.31 | 1.86 | 1.86 |
| 68 | Meters (\$ / Bill) |  | 4.05 | 0.00 | 0.00 |
| 69 | Service Lines (\$/Bill) |  | 5.90 | 0.00 | 19.18 |
| 70 | Fire Hydrants (\$/Bill) |  | 0.00 | 11,641.34 | 0.00 |
| 71 | Direct Customer Costs |  | 9.95 | 0.00 | 19.18 |
| 72 | Direct plus Customer Service \& Billing Customer Costs |  | 12.27 | 1.86 | 21.04 |
| 73 | Total Customer Costs + Extra Capacity Costs |  | 46.64 | 57,985.73 | 187.22 |


| Name | Description |  | Total | General | Muni Fire | Private Fire |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALLOCATORS |  |  |  |  |  |  |
| CUSTS | No. of Customers (Avg) | CUS | 28,870 | 96.83\% | 0.02\% | 3.16\% |
| Proposed Case |  |  |  | 27,954 | 5 | 911 |
| SERV | Services (Cost Weighted) | CUS | 33,298 | 91.00\% | 0.00\% | 9.00\% |
| Proposed Case |  |  |  | 30,302 | - | 2,996 |
| METERS | Meters | CUS | 32,687 | 100.00\% | 0.00\% | 0.00\% |
| Proposed Case |  |  |  | 32,687 | - | - |
| CUST_METERS | Number of Metered Customers | CUS | 27,954 | 100.00\% | 0.00\% | 0.00\% |
|  | Proposed Case |  |  | 27,954 | - | - |
| USAGE | Annual Usage (CCF) | CUS | 4,441,529 | 99.12\% | 0.65\% | 0.23\% |
|  | Proposed Case |  |  | 4,402,399 | 28,832 | 10,297 |
| BASE_COST | Base Cost (Based on MGD) | BASE | 9 | 99.12\% | 0.65\% | 0.23\% |
|  | Proposed Case |  |  | 9.0 | 0.1 | 0.0 |
| MAX_DAY | Extra Capacity - Max Day (Based on MGD) | EXTRA | 10 | 78.77\% | 15.49\% | 5.74\% |
|  | Proposed Case |  |  | 7.9 | 1.6 | 0.6 |
| MAX_HOUR | Extra Capacity - Max Hour (Based on MGD) | EXTRA | 20 | 61.11\% | 24.05\% | 14.84\% |
|  | Proposed Case |  |  | 12.4 | 4.9 | 3.0 |
| BILLS | No. of Bills | CUS | 346,440 | 96.83\% | 0.02\% | 3.16\% |
|  | Proposed Case |  |  | 335,448 | 60 | 10,932 |
| FIRE | Fire Hydrants | FIRE_HYD | 1 | 0.00\% | 100.00\% | 0.00\% |
|  | Proposed Case |  |  | - | 1 | - |
| REVENUE | Revenue | REV | 29,985,479 | 84.47\% | 11.49\% | 4.04\% |
| Proposed Case |  |  |  | 25,329,982 | 3,444,078 | 1,211,418 |



## Accumulated Reserve for Depreciation

## 

Franchise \& Consents
sub-total

| 303 | Land Rights - Base |
| :---: | :---: |
| 303 | Land Rights - Extra Cap (Max Day) |
| 304 | Structures and Improvements - Base |
| 304 | Structures and Improvements - Extra Cap (Max Day) |
| 305 | Collecting \& Impounding Resevoirs |
| 306 | Lake, River \& Other Intake - Base |
| 306 | Lake, River \& Other Intake - Extra Cap (Max Day) |
| 307 | Wells and Springs - Base |
| 307 | Wells and Springs - Extra Cap (Max Day) |
| 308 | Infiltration Galleries and Tunnels - Base |
| 308 | Infiltration Galleries and Tunnels - Extra Cap (Max Day) |
| 309 | Supply Mains - Base |
| 309 | Supply Mains - Extra Cap (Max Day) |
| 310 | Power Generation Equipment - Base |
| 310 | Power Generation Equipment - Extra Cap (Max Day) |
| 310 | Power Generation Equipment - Extra Cap (Max Hour) |
| 311 311 | Pumping Equipment - Base - ${ }^{\text {Puming }}$ ( Equipment - Extra Cap (Max Day) |
| 311 | Pumping Equipment - Extra Cap (Max Day) |
| 311 | Pumping Equipment - Extra Cap (Max Hour) |

Sub-tota Lquipment - Extra Cap (Max Hour)
Water Treatment Plant

| 320 | Water Treatment Plant Equipment - Base |
| :--- | :--- |
| 320 | Water Treatment Plant Equipment - Extra Cap (Max Day) | Sub-total

Transmission \& DistributionPlan

| 330 | Distribution Reservirs and Standpipes - Bas |
| :--- | :--- |
| 330 | Distribution Reserval |

Transmission and Distribution Mains - Extra Cap (Max Hour)
${ }_{331}$ Transmission and Distribution Mains - - Exase Cap (Max Day)
333 Services
335 Hydrants
Other Plant and Miscellaneous E,

[^2]



## EXPENSES

O \& M Expenses

| Production - Source of Supply |  |
| :---: | :---: |
| 601 | Operation Labor and Expenses - Base |
| 601 | Operation Labor and Expenses - Extra Cap (Max Day) |
| 602 | Purchased Water |
| 603 | Miscellaneous Expenses - Base |
| 603 | Miscellaneous Expenses - Extra Cap (Max Day) |
| 610 | Maintenance Supervision and Engineering - Base |
| 610 | Maintenance Supervision and Engineering - Extra Cap (Max Day) |
|  | Sub-total |


| 32,680 | 32,680 |
| :---: | :---: |
| 36,188 |  |
| 472,407 | 472,407 |
| 7,083 | 7,083 |
| 7,843 | 7,843 |
| 309,175 | 309, 17 |
| 342,361 | 342,36 |


| F_BASEC | BASE | BASE_COST |  |
| :---: | :---: | :---: | :---: |
| F_MXDAY | EXTRA |  | MAX_DAY |
| F_BASEC | BASE | BASE_COST |  |
| F-BASEC | BASE EXTRA | BASE_COST | MAX DAY |
| F_MXDAY | EXTRA | BASE COST | MAX_DAY |



| 623 | Fuel or Power Purchased for Pumping - Base |
| :---: | :---: |
| 623 | Fuel or Power Purchased for Pumping - Extra Cap (Max Day) |
| 624 | Pumping Labor and Expenses - Base |
| 624 | Pumping Labor and Expenses - Extra Cap (Max Day) |
| 624 | Pumping Labor and Expenses - Extra Cap (Max Hour) |
| 626 | Miscellaneous Expenses - Base |
| 626 | Miscellaneous Expenses - Extra Cap (Max Day) |
| 626 | Miscellaneous Expenses - Extra Cap (Max Hour) |
| 631 | Maintenance of Structures and Improvements - Base |
| 631 | Maintenance of Structures and Improvements - Extra Cap (Max Day) |
| 631 | Maintenance of Structures and Improvements |
| 633 | Maintenance of Pumping Equipment - Base |
| 633 | Maintenance of Pumping Equipment - Extra Cap (Max Day) |
| 633 | Maintenance of Pumping Equipment - Extra Cap (Max Hour) |

Production -Pumping Expenses

Maintenance of Pumping Equipment - Extra Cap (Max Day)
Sub-total - Extra Cap (Max Hour)
Production - Water Treatment Operations and Maintenance Expense

|  | Production - Water Treatment Operations and Maintenance Expens |
| :---: | :---: |
| 641 | Chemicals |
| 642 | Operation Labor and Expenses - Base |
| 642 | Operation Labor and Expenses - Extra Cap (Max Day) |
| 643 | Miscellaneous Expenses - Base |
| 643 | Miscellaneous Expenses - Extra Cap (Max Day) |
| 652 | Maintenance of Water Treatment Equipment - Base |
| 652 | Maintenance of Water Treatment Equipment - Extra Cap (Max Day) |
| 652 | Sludge Removal |
|  | ~ |
| $\sim$ | $\sim$ |
| ~ | $\sim$ |
| $\sim$ | $\sim$ |


$601-652$ \& 926 PRO FORMA Adjustments based on FIVE YEAR AVE
Sub-total


| F_BASEC | BASE | BASE_COST |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F-MXDAY | ExTRA |  | MAX_DAY |  |  |  |
| F-BASEC | BASE | BASE_COST |  |  |  |  |
| F_MXDAY | EXTRA |  | MAX_DAY |  |  |  |
| F_MXHRS | EXTRA |  | MAX_HOUR |  |  |  |
| F-BASEC | BASE | BASE_COST |  |  |  |  |
| F_MXDAY | EXTRA |  | MAX_DAY |  |  |  |
| F_MXHRS | EXTRA |  | MAX_HOUR |  |  |  |
| F_BASEC | BASE | BASE_COST |  |  |  |  |
| F_MXDAY | EXTRA |  | MAX_DAY |  |  |  |
| F_MXHRS | EXTRA |  | MAX_HOUR |  |  |  |
| F_BASEC | BASE | BASE_COST |  |  |  |  |
| ${ }_{\text {F-MMXDAY }}$ | EXXTRA |  | MAX_LOUR |  |  |  |






Total Production Expense

| 243,900 | 243,900 |  |  |  |  |  |  |  |  |  |  | PRODOM |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 191,839 | 191,839 |  |  |  |  |  |  |  |  |  |  | PRODOM |
| 31,539 | 31,539 |  |  |  |  |  |  |  |  |  |  | PRODOM |
| 467,277 | 467,277 |  |  |  |  |  |  |  |  |  |  |  |


| Transmission \& Distribution 0\&M Expenses |  |
| :---: | :---: |
| 660 | Operation Supervision and Engineering |
| 662 | Transmission \& Distribution Lines Expenses - Base |
| 662 | Transmission \& Distribution Lines Expenses - Extra Cap (Max Day) |
| 662 | Transmission \& Distribution Lines Expenses - Extra Cap (Max Hour) |
| 663 | Meter Expenses |
| 664 | Customer Installations Expenses |
| 665 | Miscellaneous Expenses |
| 673 | Maintenance of Transmission and Distribution Mains - Base |
| 673 | Maintenance of Transmission and Distribution Mains - Extra Cap (Max Day) |
| 673 | Maintenance of Transmission and Distribution Mains - Extra Cap (Max Hour) |
| 675 | Maintenance of Services |
| 676.0 | Maintenance of Meters |
| 677.0 | Maintenance of Hydrants |
| 678.0 | Maintenance of Miscellaneous Equipment |
| 921 | Office Supplies and Other Expenses |
| 926 | Employee Pension and Benefits |
| 950.0 | Maintenance of General Plant |
| 660-678 \& 921, 926,950 | PRO FORMA Adjustments to Test Year | PRO FORMA

 Sub-total
TOTAL O \& M EXPENSES


| Acct. No. | Account Description |
| :---: | :---: |
| Labor Expense |  |
| Salaries and Wages |  |
| $\sim$ | Production |
| $\sim$ | Transmission and Distribution and Customer Accounts |
|  | Engineering |
|  | Sub-total |
| TOTAL O \& M LABOR EXP. |  |
| Amortization Expense |  |
| 407 | Amortization Expense |
| Sub-total |  |
| total depreciation expenses |  |
| Taxes Other Than Income Taxes |  |
| 408 | Payroll Taxes |
|  | Property Toax |
|  |  |
| total taxes other than income tax |  |
| City Bond Fixed Revenue Requirement (CBFRR) |  |
|  |  |
|  |  |  |
| Income Taxes |  |
| Tax ExpenseTOTAL |  |
|  |  |  |
| Debt Service Revenue Requirement |  |
| - ~ | Debt Service Revenue Requirement (DSRR 1.0) |
| 0.1 Debt Service Revenue Requirement (0.1 DSRR)TOTAL |  |
|  |  |  |
| Operating Revenues |  |
| 461 | Water Sales |
| 466 $471-474$ | Sales for Resale |
| 471-474 | Other Operating Revenue Sub-total |
|  | total |



| Acct. No. | Account Description | Amount | Alloc. Factor | General Metered Service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | BASE | EXTRA | cus | FIRE_HYD | REV |  | TOTAL |
| Intangible Plant |  |  |  |  |  |  |  |  |  |  |
| 301.0 | Organizational Expense | 28,856 | StTDPLT | 8,569 | 11,389 | 3,162 |  |  | - | 23,120 |
| 302.0 | Franchise \& Consents | 229,132 | STTDPLT | 68,038 | 90,434 | 25,110 |  |  | - | 183,582 |
|  | Sub-total | 257,988 |  | 76,607 | 101,823 | 28,272 |  |  | - | 206,702 |
| Source of Supply and Pumping Plant |  |  |  |  |  |  |  |  |  |  |
| 303.0 | Land Rights - Base | 1,033,582 | BASE_COST | 1,024,476 | - | - |  |  | - | 1,024,476 |
| 303.0 | Land Rights - Extra Cap (Max Day) | 1,144,524 | MAX_DAY | - | 901,539 | - |  |  | - | 901,539 |
| 304.0 | Structures and Improvements - Base | 20,921,962 | BASE_COST | 20,737,640 | - | - |  |  | - | 20,737,640 |
| 304.0 | Structures and Improvements - Extra Cap (Max Day) | 23,167,668 | max_DAY | - | 18,249,124 | - |  |  | - | 18,249,124 |
| 305.0 | Collecting \& Impounding Resevoirs | 4,991,892 | BASE_COST | 4,947,914 | - | - |  |  | - | 4,947,914 |
| 306.0 | Lake, River \& Other Intake - Base | 10,555 | BASE_COST | 10,462 | - | - |  |  | - | 10,462 |
| 306.0 | Lake, River \& Other Intake - Extra Cap (Max Day) | 11,688 | MAX_DAY | - | 9,207 | - |  |  | - | 9,207 |
| 307.0 | Wells and Springs - Base | 669,627 | BASE_COST | 663,727 | - | - |  |  | - | 663,727 |
| 307.0 | Wells and Springs - Extra Cap (Max Day) | 741,503 | MAX_DAY | - | 584,080 | - |  |  | - | 584,080 |
| 308.0 | Infiltration Galleries and Tunnels - Base | 732 | base_cost | 726 | - | - |  |  | - | 726 |
| 308.0 | Infiltration Galleries and Tunnels - Extra Cap (Max Day) | 811 | MAX_DAY | - | 639 | - |  |  | - | 639 |
| 309.0 | Supply Mains - Base | 1,777,408 | BASE_COST | 1,761,749 |  | - |  |  | - | 1,761,749 |
| 309.0 | Supply Mains - Extra Cap (Max Day) | 1,968,190 | MAX_DAY | - | 1,550,339 | - |  |  | - | 1,550,339 |
| 310.0 | Power Generation Equipment - Base | 294,625 | BASE_COST | 292,029 |  | - |  |  | - | 292,029 |
| 310.0 | Power Generation Equipment - Extra Cap (Max Day) | 326,249 | MAX_DAY | - | 256,986 | - |  |  | - | 256,986 |
| 310.0 | Power Generation Equipment - Extra Cap (Max Hour) | 654,708 | max_Hour | - | 400,080 | - |  |  | - | 400,080 |
| 311.0 | Pumping Equipment - Base | 1,492,063 | base_cost | 1,478,918 |  | - |  |  | - | 1,478,918 |
| 311.0 | Pumping Equipment - Extra Cap (Max Day) | 1,652,216 | MAX_DAY | - | 1,301,447 | - |  |  | - | 1,301,447 |
|  | Pumping Equipment - Extra Cap (Max Hour) | 3,315,628 | MAX_HOUR | - | 2,026,117 | - |  |  | - | 2,026,117 |
|  | Sub-total | 64,175,631 |  | 30,917,641 | 25,279,557 | - |  |  | - | 56,197,199 |
| Water Treatment Plant |  |  |  |  |  |  |  |  |  |  |
| 320.0 | Water Treatment Plant Equipment - Base | 8,559,529 | BASE_COST | 8,484,119 | - | - |  |  | - | 8,484,119 |
| 320.0 | Water Treatment Plant Equipment - Extra Cap (Max Day) | 9,478,285 | MAX_DAY |  | 7,466,025 | - |  |  | - | 7,466,025 |
|  | Sub-total | 18,037,813 |  | 8,484,119 | 7,466,025 | - |  |  | - | 15,950,145 |


| Acct. No. | Account Description | Amount | Alloc. Factor | General Metered Service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | BASE | EXTRA | cus | FIRE_HYD | REV |  | TOTAL |
| Transmission \& DistributionPlant |  |  |  |  |  |  |  |  |  |  |
| 330.0 | Distribution Reservoirs and Standpipes - Base | 1,953,818 | base_cost | 1,936,605 | - | - |  |  | - | 1,936,605 |
| 330.0 | Distribution Reservoirs and Standpipes - Extra Cap (Max Hour) | 6,505,266 | max_Hour |  | 3,975,244 | - |  |  | - | 3,975,244 |
| 331.0 | Transmission and Distribution Mains - Base | 19,893,956 | base_cost | 19,718,691 |  | - |  |  | - | 19,718,691 |
| 331.0 | Transmission and Distribution Mains - Extra Cap (Max Day) | 22,029,318 | MAX_DAY | - | 17,352,448 | - |  |  | - | 17,352,448 |
| 331.0 | Transmission and Distribution Mains - Extra Cap (Max Hour) | 44,207,897 | MAX_HOUR |  | 27,014,606 | - |  |  | - | 27,014,606 |
| 333.0 | Services | 17,180,643 | SERV |  | - | 15,634,574 |  |  | - | 15,634,574 |
| 334.0 | Meters and Meter Installations | 6,849,453 | mETERS | - | - | 6,849,453 |  |  | - | 6,849,453 |
| 335.0 | Hydrants | 4,615,836 | FIRE |  | - | - |  |  |  |  |
| 339.0 | Other Plant and Miscellaneous Eq. | 419,801 | TDPLT | 73,768 | 164,677 | 76,591 |  |  | - | 315,037 |
|  | Sub-total | 123,655,988 |  | 21,729,064 | 48,506,975 | 22,560,618 |  |  | - | 92,796,657 |
| Other Plant |  |  |  |  |  |  |  |  |  |  |
|  | CWIP | 1,754,568 | PLANT | 521,001 | 692,493 | 192,278 |  |  | - | 1,405,772 |
|  | Sub-total | 1,754,568 |  | 521,001 | 692,493 | 192,278 |  |  | - | 1,405,772 |
| General Plant |  |  |  |  |  |  |  |  |  |  |
| 340.0 | Office Furniture and Equipment | 528,237 | STTDPLT | 156,855 | 208,485 | 57,888 |  |  | - | 423,227 |
| 341.0 | Transportation Equipment | 3,755,588 | StTDPLT | 1,115,184 | 1,482,256 | 411,564 |  |  | - | 3,009,003 |
| 343.0 | Tools, Shop and Garage Equipment | 732,821 | STTDPLT | 217,604 | 289,230 | 80,308 |  |  |  | 587,141 |
| 344.0 | Laboratory Equipment | 226,761 | STTDPLT | 67,334 | 89,498 | 24,850 |  |  |  | 181,683 |
| 345.0 | Power Operated Equipment | 465,933 | STTDPLT | 138,354 | 183,894 | 51,060 |  |  |  | 373,309 |
| 346.0 | Communication Equipment | 1,047,226 | STTDPLT | 310,963 | 413,319 | 114,762 |  |  |  | 839,045 |
| 347.0 | Computer Equipment | 8,416,613 | STTDPLT | 2,499,227 | 3,321,869 | 922,352 |  |  |  | 6,743,448 |
| 348.0 | Other Tangible Equipment | 737,171 | STTDPLT | 218,895 | 290,947 | 80,784 |  |  | - | 590,626 |
| - | Sub-total | 15,910,350 |  | 4,724,416 | 6,279,498 | 1,743,568 |  |  | - | 12,747,481 |
|  | TOTAL PLANT-IN-SERVICE | 223,792,339 |  | 66,452,849 | 88,326,371 | 24,524,736 |  |  | - | 179,303,955 |



Accumulated Reserve for Depreciation

| Intangible Plant |  |
| :---: | :---: |
| 301.0 | Organizational Expense |
| 302.0 | Franchise \& Consents |
|  | Sub-total |
|  | Source of Supply and Pumping Plant |
| 303.0 | Land Rights - Base |
| 303.0 | Land Rights - Extra Cap (Max Day) |
| 04.0 | Structures and Improvements - Base |
| 304.0 | Structures and Improvements - Extra Cap (Max Day) |
| 305.0 | Collecting \& Impounding Resevoirs |
| 306.0 | Lake, River \& Other Intake - Base |
| 306.0 | Lake, River \& Other Intake - Extra Cap (Max Day) |
| 307.0 | Wells and Springs - Base |
| 307.0 | Wells and Springs - Extra Cap (Max Day) |
| 308.0 | Infiltration Galleries and Tunnels - Base |
| 308.0 | Infiltration Galleries and Tunnels - Extra Cap (Max Day) |
| 309.0 | Supply Mains - Base |
| 309. | Supply Mains - Extra Cap (Max Day) |
| 310.0 | Power Generation Equipment - Base |
| 310.0 | Power Generation Equipment - Extra Cap (Max Day) |
| 310.0 | Power Generation Equipment - Extra Cap (Max Hour) |
| 311.0 | Pumping Equipment - Base |
| 311.0 | Pumping Equipment - Extra Cap (Max Day) |
| 311.0 | Pumping Equipment - Extra Cap (Max Hour) |
|  | Water Treatment Plant |
| 320.0 | Water Treatment Plant Equipment - Base |
| 320.0 | Water Treatment Plant Equipment - Extra Cap (Max Day) |
|  | Sub-total |
|  | Transmission \& DistributionPlant |
| 330.0 | Distribution Reservoirs and Standpipes - Base |
| 330.0 | Distribution Reservoirs and Standpipes - Extra Cap (Max Hour) |
| 331.0 | Transmission and Distribution Mains - Base |
| 331.0 | Transmission and Distribution Mains - Extra Cap (Max Day) |
| 331.0 | Transmission and Distribution Mains - Extra Cap (Max Hour) |
| 333.0 | Services |
| 334.0 | Meters and Meter Installations |
| 335.0 | Hydrants |
| 339.0 | Other Plant and Miscellaneous Eq. Sub-total |





## EXPENSES

## O \& M Expenses

Production - Source of Supply
601.0 Operation Labor and Expenses - Base
601.0 Operation Labor and Expenses - Extra Cap (Max Day)
602.0 Purchased Water
603.0 Miscellaneous Expenses - Base
603.0 Miscellaneous Expenses - Extra Cap (Max Day)
610.0 Maintenance Supervision and Engineering - Base
610.0 Maintenance Supervision and Engineering - Extra Cap (Max Day) Sub-total
Production - Pumping Expenses
623.0 Fuel or Power Purchased for Pumping Base
623.0 Fuel or Power Purchased for Pumping - Extra Cap (Max Day)
624.0 Pumping Labor and Expenses - Base
624.0 Pumping Labor and Expenses - Extra Cap (Max Hour)
622.0 Miscellaneous Expenses - Base
626.0 Miscellaneous Expenses - Extra Cap (Max Day)
626.0 Miscellaneous Expenses - Extra Cap (Max Hour)
631.0 Maintenance of Structures and Improvements - Base
631.0 Maintenance of Structures and Improvements - Extra Cap (Max Day)
631.0 Maintenance of Structures and Improvements

Sub-total
Production - Water Treatment Operations and Maintenance Expense
1.0 Chemicals
642.0 Operation Labor and Expenses - Base
643. Miscellan Labor and Expenses
643.0 Miscellaneous Expenses - Extra Cap (Max Day)
652.0 Maintenance of Water Treatment Equipment - Extra Cap (Max Day) Sub-total
Production - Other
226.0 Employee Pension and Bene

52 \& 926 PRO FORMA Adjustments to Test Yea
$\mathbf{5} 52$ \& 926 PRO FORMA Adjustments based on FIVE YEAR AVE

## Sub-total

Total Production Expense

Amount
Alloc. Factor
BASE
EXTRA
General Metered Service
CuS

| 32,680 | BASE_COST | 32,392 | - | - | - | - | 32,392 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 36,188 | MAX_DAY | - | 28,505 | - | - | - | 28,505 |
| 472,407 | BASE_COST | 468,246 | - | - | - |  | 468,246 |
| 7,083 | BASE_COST | 7,021 | - | - | - |  | 7,021 |
| 7,843 | MAX_DAY |  | 6,178 | - | - | - | 6,178 |
| 309,175 | BASE_COSt | 306,451 |  | - | - |  | 306,451 |
| 342,361 | MAX_DAY | - | 269,677 | - | - | - | 269,677 |
| 1,207,738 |  | 814,110 | 304,360 | - | - | - | 1,118,470 |
| 989,673 | BASE_COST | 980,954 | - | - | - | - | 980,954 |
| 162,632 | MAX_DAY |  | 128,105 | - | - | - | 128,105 |
| 66,716 | BASE_COST | 66,128 |  | - |  | - | 66,128 |
| 73,877 | MAX_DAY | - | 58,193 | - | - |  | 58,193 |
| 148,254 | MAX_HOUR | - | 90,595 | - | - |  | 90,595 |
| 22,574 | bASE_COSt | 22,375 |  | - | - | - | 22,375 |
| 24,997 | MAX_DAY | - | 19,690 | - | - | - | 19,690 |
| 50,163 | MAX_HOUR |  | 30,654 | - |  |  | 30,654 |
| 29,266 | bASE_COSt | 29,009 |  | - | - | - | 29,009 |
| 32,408 | MAX_DAY | - | 25,528 | - | - | - | 25,528 |
| 65,035 | MAX_HOUR |  | 39,742 | - |  |  | 39,742 |
| 1,938,676 |  | 1,160,984 | 533,173 | - | - | - | 1,694,157 |
| 908,981 | base_cost | 900,973 | - | - | - | - | 900,973 |
| 192,031 | BASE_COST | 190,339 | - |  |  |  | 190,339 |
| 212,643 | MAX_DAY | - | 167,498 | - | - |  | 167,498 |
| $(80,686)$ | BASE_COST | (79,975) |  |  |  |  | (79,975) |
| (89,346) | max_Day |  | $(70,378)$ |  |  |  | $(70,378)$ |
| 77,080 | BASE_COST | 76,401 |  | - | - |  | 76,401 |
| 85,354 | max_DAY |  | 67,233 | - | - | - | 67,233 |
| 1,684,196 |  | 1,462,546 | 164,353 | - | - | - | 1,626,899 |
| 243,900 | PRODOM | 173,568 | 50,586 | - | - | - | 224,154 |
| 191,839 | PRODOM | 136,519 | 39,788 | - | - | - | 176,307 |
| 31,539 | PRODOM | 22,444 | 6,541 | - | - | - | 28,986 |
| 467,277 |  | 332,532 | 96,915 | - | - | - | 429,447 |
| 5,297,887 |  | 3,770,171 | 1,098,801 | - | - | - | 4,868,973 |


| Acct. No. | Account Description | Amount | Alloc. Factor | General Metered Service |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | BASE | EXTRA | cus | FIRE_HYD | REV |  | TOTAL |
| Transmission \& Distribution O\&M Expenses |  |  |  |  |  |  |  |  |  |  |
| 660.0 | Operation Supervision and Engineering | 453,240 | TDOPER | 50,285 | 113,141 | 231,850 |  |  | - | 395,276 |
| 662.0 | Transmission \& Distribution Lines Expenses - Base | 47,274 | BASE_COST | 46,857 | - | - |  |  | - | 46,857 |
| 662.0 | Transmission \& Distribution Lines Expenses - Extra Cap (Max Day) | 52,348 | MAX_DAY | - | 41,234 | - |  |  |  | 41,234 |
| 662.0 | Transmission \& Distribution Lines Expenses - Extra Cap (Max Hour) | 105,050 | MAX_HOUR | - | 64,194 | - |  |  | - | 64,194 |
| 663.0 | Meter Expenses | 199,593 | meters | - | - | 199,593 |  |  |  | 199,593 |
| 664.0 | Customer Installations Expenses | 18,080 | SERV | - | - | 16,453 |  |  | - | 16,453 |
| 665.0 | Miscellaneous Expenses | (596) | TDOPER | (66) | (149) | (305) |  |  | - | (520) |
| 673.0 | Maintenance of Transmission and Distribution Mains - Base | 170,815 | base_cost | 169,310 |  | - |  |  | - | 169,310 |
| 673.0 | Maintenance of Transmission and Distribution Mains - Extra Cap (Max Day) | 189,150 | max_DAY | - | 148,993 | - |  |  |  | 148,993 |
| 673.0 | Maintenance of Transmission and Distribution Mains - Extra Cap (Max Hour) | 379,582 | MAX-HOUR | - | 231,955 | - |  |  | - | 231,955 |
| 675.0 | Maintenance of Services | 294,871 | SERV | - | - | 268,336 |  |  |  | 268,336 |
| 676.0 | Maintenance of Meters | 14,214 | meters | - | - | 14,214 |  |  |  | 14,214 |
| 677.0 | Maintenance of Hydrants | 133,729 | FIRE | - | - |  |  |  |  |  |
| 921 | Office Supplies and Other Expenses | 112,628 | OMXPAG | 33,522 | 37,649 | 21,193 |  |  |  | 92,364 |
| 926 | Employee Pension and Benefits | 378,515 | LABOR | 136,316 | 112,324 | 66,863 |  |  |  | 315,503 |
| 926,950 | Maintenance of General Plant | 126,129 | OMXPAG | 37,540 | 42,163 | 23,733 |  |  |  | 103,436 |
|  | PRO FORMA Adjustments to Test Year | 98,367 | тDOM | 17,087 | 28,967 | 31,212 |  |  | - | 77,266 |
|  | Sub-total | 2,946,706 |  | 511,860 | 867,742 | 934,997 |  |  | - | 2,314,599 |
| Engineering Expenses |  |  |  |  |  |  |  |  |  |  |
| 660.0 | Operation Supervision and Engineering | 1,211,076 | engom | 277,261 | 623,838 | 0 |  |  | - | 901,099 |
| 662.0 | Transmission \& Distribution Lines Expenses | 17,709 | BASE_COST | 17,553 | - | - |  |  |  | 17,553 |
| 662.0 | Transmission \& Distribution Lines Expenses - Extra Cap (Max Day) | 19,610 | MAX_DAY | - | 15,447 | - |  |  |  | 15,447 |
| 662.0 | Transmission \& Distribution Lines Expenses - Extra Cap (Max Hour) | 39,352 | MAX_HOUR | - | 24,047 |  |  |  |  | 24,047 |
| 660-662 | PRO FORMA Adjustments to Test Year | 11,317 | ENGOM | 2,591 | 5,830 | 0 |  |  |  | 8,421 |
|  | Sub-total | 1,299,064 |  | 297,405 | 669,161 | 0 |  |  | - | 966,566 |
| Customer Account |  |  |  |  |  |  |  |  |  |  |
| 902.0 | Meter Reading Expenses | 118,991 | CUST_METERS | - | - | 118,991 |  |  | - | 118,991 |
| 903.0 | Customer Records and Collection Expenses | 322,306 | BILLS |  |  | 312,080 |  |  |  | 312,080 |
| 902-904 | Uncollectible Accounts | 48,493 | CUSTS | - | - | 46,954 |  |  |  | 46,954 |
|  | PRO FORMA Adjustments to Test Year | 9,700 | CUSTOM | 5,809 | 2,668 |  |  |  |  | 8,477 |
|  | Sub-total | 499,489 |  | 5,809 | 2,668 | 478,025 |  |  | - | 486,501 |
| Administrative and General Expenses |  |  |  |  |  |  |  |  |  |  |
| 920 | Administrative and General Salaries | 2,949,490 | OMXPAG | 877,871 | 985,959 | 554,993 |  |  | - | 2,418,822 |
| 921 | Office Supplies and Other Expenses | 518,725 | OMXPAG | 154,391 | 173,400 | 97,606 |  |  |  | 425,397 |
| 922 | Administrative Expenses Transferred-Cr. | $(1,622,715)$ | OMXPAG | $(482,976)$ | $(542,443)$ | $(305,339)$ |  |  |  | $(1,330,758)$ |
| 923 | Outside Services Employed | 385,360 | OMXPAG | 114,696 | 128,818 | 72,511 |  |  | - | 316,026 |
| 924 | Property Insurance | 487,967 | PLANT | 144,897 | 192,591 | 53,475 |  |  |  | 390,962 |
| 926 | Employee Pension and Benefits | 3,967,529 | LABOR | 1,428,841 | 1,177,363 | 700,848 |  |  |  | 3,307,052 |
| 928 | Regulatory Commission Expenses | 105,678 | OMXPAG | 31,453 | 35,326 | 19,885 |  |  |  | 86,665 |
| 930 | Miscellaneous General Expenses | 154,019 | OMXPAG | 45,841 | 51,486 | 28,981 |  |  |  | 126,308 |
| 950.0 | Maintenance of General Plant | 634,318 | OMXPAG | 188,795 | 212,040 | 119,357 |  |  |  | 520,192 |
| 920-950 | A\&G PRO FORMA Adjustments to Test Year | 551,328 | LABOR | 198,552 | 163,606 | 97,390 |  |  |  | 459,548 |
| 930.0 | Miscellaneous General Expenses | $(3,288,063)$ | OMXPAG | $(978,642)$ | $(1,099,137)$ | $(618,701)$ |  |  |  | $(2,696,479)$ |
| 930.0 | PRO FORMA Adjustments to Test Year | $(147,764)$ | OMXPAG | $(43,980)$ | $(49,395)$ | $(27,804)$ |  |  | - | (121,178) |
|  | Sub-total | 4,695,872 |  | 1,679,739 | 1,429,615 | 793,203 |  |  | - | 3,902,557 |
|  | TOTAL O \& M EXPENSES | 14,739,018 |  | 6,264,985 | 4,067,988 | 2,206,224 |  |  | - | 12,539,197 |


| Acct. No. | Account Description | Amount | Alloc. Factor | General Metered Service |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | BASE | EXTRA | cus | FIRE_HYD | REV | TOTAL |
| Labor Expense |  |  |  |  |  |  |  |  |  |
| - Salaries and Wages |  |  |  |  |  |  |  |  |  |
| ~ | Production | 1,774,985 | PRODOM | 1,263,145 | 368,139 | - |  | - | 1,631,283 |
| $\sim$ | Transmission and Distribution and Customer Accounts | 2,235,577 | TDCUSOM | 335,817 | 564,642 | 916,639 |  | - | 1,817,099 |
| $\sim$ | Engineering | 1,178,567 | Engom | 269,819 | 607,092 | 0 |  | - | 876,911 |
|  | Sub-total | 5,189,129 |  | 1,868,780 | 1,539,873 | 916,639 |  | - | 4,325,293 |
|  | TOTAL O \& M LABOR EXP. | 5,189,129 |  | 1,868,780 | 1,539,873 | 916,639 |  | - | 4,325,293 |
| Amortization Expense |  |  |  |  |  |  |  |  |  |
| 407.0 | Amortization Expense | 415,268 | NET_PLANT_IN | 124,045 | 166,287 | 42,111 |  | - | 332,442 |
|  | Sub-total | 415,268 |  | 124,045 | 166,287 | 42,111 |  | - | 332,442 |
|  | total depreciation expenses | 415,268 |  | 124,045 | 166,287 | 42,111 |  | - | 332,442 |
| Taxes Other Than Income Taxes |  |  |  |  |  |  |  |  |  |
| 408.0 | Payroll Taxes | 698,087 | LABOR | 251,405 | 207,157 | 123,314 |  | - | 581,876 |
| 408.0 | Property Taxes | 4,547,936 | PLANT | 1,350,463 | 1,794,980 | 498,395 |  | - | 3,643,838 |
|  | Sub-total | 5,246,023 |  | 1,601,868 | 2,002,137 | 621,709 |  | - | 4,225,714 |
|  | total taxes other than income tax | 5,246,023 |  | 1,601,868 | 2,002,137 | 621,709 |  | - | 4,225,714 |
| City Bond Fixed Revenue Requirement (CBFRR) |  |  |  |  |  |  |  |  |  |
|  | City Bond Fixed Revenue Requirement (CBFRR) | 7,729,032 | NET_PLANT_IN | 2,308,739 | 3,094,950 | 783,774 |  | - | 6,187,463 |
|  | TOTAL | 7,729,032 |  | 2,308,739 | 3,094,950 | 783,774 |  | - | 6,187,463 |
| Income Taxes |  |  |  |  |  |  |  |  |  |
| - | Tax Expense | 103,249 | NET_PLANT_IN | 30,841 | 41,344 | 10,470 |  | - | 82,656 |
|  | total | 103,249 |  | 30,841 | 41,344 | 10,470 |  | - | 82,656 |
| Debt Service Revenue Requirement |  |  |  |  |  |  |  |  |  |
|  | Debt Service Revenue Requirement (DSRR 1.0) | 6,999,023 | NET_PLANT_IN | 2,090,678 | 2,802,632 | 709,746 |  | - | 5,603,056 |
|  | TOTAL | 7,698,925 |  | 2,299,746 | 3,082,895 | 780,721 |  | - | 6,163,361 |
| Operating Revenues |  |  |  |  |  |  |  |  |  |
| 461.0 | Water Sales | 29,985,479 | revenue | - | - | - |  | 25,329,982 | 25,329,982 |
| 466.0 | Sales for Resale | 3,321 | REVENUE | - | - | - |  | 2,805 | 2,805 |
| 471-474 | Other Operating Revenue | 417,391 | REVENUE | - | - | - |  | 352,588 | 352,588 |
|  | Sub-total | 30,406,191 |  | - | - | - |  | 25,685,375 | 25,685,375 |
|  | total | 30,406,191 |  | - | - | - |  | 25,685,375 | 25,685,375 |


| Acct. No. | Account Description | Amount | Alloc. Factor | Municipal Fire Protection |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | BASE | EXTRA | cus |  | FIRE_HYD | REV |  | TOTAL |
| Intangible Plant |  |  |  |  |  |  |  |  |  |  |  |
| 301.0 | Organizational Expense | 28,856 | StTDPLT | 56 | 3,164 |  | - | 649 |  | - | 3,870 |
| 302.0 | Franchise \& Consents | 229,132 | STTDPLT | 446 | 25,127 |  | - | 5,155 |  |  | 30,728 |
|  | Sub-total | 257,988 |  | 502 | 28,292 |  | - | 5,804 |  | - | 34,598 |
| Source of Supply and Pumping Plant |  |  |  |  |  |  |  |  |  |  |  |
| 303.0 | Land Rights - Base | 1,033,582 | BASE_COST | 6,710 |  |  | - | - |  | - | 6,710 |
| 303.0 | Land Rights - Extra Cap (Max Day) | 1,144,524 | MAX_DAY | - | 177,248 |  | - | - |  | - | 177,248 |
| 304.0 | Structures and Improvements - Base | 20,921,962 | BASE_COST | 135,816 |  |  | - | - |  | - | 135,816 |
| 304.0 | Structures and Improvements - Extra Cap (Max Day) | 23,167,668 | max_DAY |  | 3,587,897 |  | - | - |  | - | 3,587,897 |
| 305.0 | Collecting \& Impounding Resevoirs | 4,991,892 | base_cost | 32,405 | - |  | - | - |  | - | 32,405 |
| 306.0 | Lake, River \& Other Intake - Base | 10,555 | BASE_COST | 69 | - |  | - | - |  | - | 69 |
| 306.0 | Lake, River \& Other Intake - Extra Cap (Max Day) | 11,688 | max_DAY | - | 1,810 |  | - | - |  | - | 1,810 |
| 307.0 | Wells and Springs - Base | 669,627 | BASE_COST | 4,347 |  |  | - | - |  | - | 4,347 |
| 307.0 | Wells and Springs - Extra Cap (Max Day) | 741,503 | MAX_DAY | - | 114,834 |  | - | - |  | - | 114,834 |
| 308.0 | Infiltration Galleries and Tunnels - Base | 732 | BASE_COST | 5 |  |  | - | - |  |  | 5 |
| 308.0 | Infiltration Galleries and Tunnels - Extra Cap (Max Day) | 811 | MAX_DAY | - | 126 |  | - | - |  |  | 126 |
| 309.0 | Supply Mains - Base | 1,777,408 | BASE_COST | 11,538 |  |  | - | - |  |  | 11,538 |
| 309.0 | Supply Mains - Extra Cap (Max Day) | 1,968,190 | MAX_DAY |  | 304,807 |  | - | - |  | - | 304,807 |
| 310.0 | Power Generation Equipment - Base | 294,625 | BASE_COST | 1,913 |  |  | - | - |  |  | 1,913 |
| 310.0 | Power Generation Equipment - Extra Cap (Max Day) | 326,249 | MAX_DAY | - | 50,525 |  | - | - |  |  | 50,525 |
| 310.0 | Power Generation Equipment - Extra Cap (Max Hour) | 654,708 | MAX_HOUR | - | 157,447 |  | - | - |  | - | 157,447 |
| 311.0 | Pumping Equipment - Base | 1,492,063 | base_cost | 9,686 |  |  | - | - |  |  | 9,686 |
| 311.0 | Pumping Equipment - Extra Cap (Max Day) | 1,652,216 | MAX_DAY |  | 255,873 |  | - | - |  |  | 255,873 |
| 311.0 | Pumping Equipment - Extra Cap (Max Hour) | 3,315,628 | MAX_HOUR | - | 797,357 |  | - | - |  |  | 797,357 |
|  | Sub-total | 64,175,631 |  | 202,488 | 5,447,924 |  | - | - |  | - | 5,650,412 |
| Water Treatment Plant |  |  |  |  |  |  |  |  |  |  |  |
| 320.0 | Water Treatment Plant Equipment - Base | 8,559,529 | BASE_COST | 55,565 | - |  | - | - |  | - | 55,565 |
| 320.0 | Water Treatment Plant Equipment - Extra Cap (Max Day) | 9,478,285 | MAX_DAY |  | 1,467,869 |  | - | - |  | - | 1,467,869 |
|  | Sub-total | 18,037,813 |  | 55,565 | 1,467,869 |  | - | - |  | - | 1,523,434 |


| Acct. No. | Account Description | Amount | Alloc. Factor | Municipal Fire Protection |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | BASE | EXTRA | cus |  | FIRE_HYD | REV |  | TOTAL |
| Transmission \& DistributionPlant |  |  |  |  |  |  |  |  |  |  |  |
| 330.0 | Distribution Reservoirs and Standpipes - Base | 1,953,818 | BASE_COST | 12,683 | - |  | - | - |  | - | 12,683 |
| 330.0 | Distribution Reservoirs and Standpipes - Extra Cap (Max Hour) | 6,505,266 | max_HOUR | - | 1,564,415 |  | - | - |  | - | 1,564,415 |
| 331.0 | Transmission and Distribution Mains - Base | 19,893,956 | BASE_COST | 129,143 |  |  | - | - |  | - | 129,143 |
| 331.0 | Transmission and Distribution Mains - Extra Cap (Max Day) | 22,029,318 | max_DAY | - | 3,411,605 |  | - | - |  | - | 3,411,605 |
| 331.0 | Transmission and Distribution Mains - Extra Cap (Max Hour) | 44,207,897 | MAX_HOUR | - | 10,631,312 |  | - | - |  | - | 10,631,312 |
| 333.0 | Services | 17,180,643 | SERV | - | - |  | - | - |  | - | - |
| 334.0 | Meters and Meter Installations | 6,849,453 | METERS | - | - |  | - | - |  | - | - |
| 335.0 | Hydrants | 4,615,836 | FIRE | - |  |  | - | 4,615,836 |  | - | 4,615,836 |
| 339.0 | Other Plant and Miscellaneous Eq. | 419,801 | TDPLT | 483 | 53,166 |  | - | 15,724 |  | - | 69,373 |
|  | Sub-total | 123,655,988 |  | 142,309 | 15,660,499 |  | - | 4,631,560 |  | - | 20,434,368 |
| Other Plant |  |  |  |  |  |  |  |  |  |  |  |
|  | CWIP | 1,754,568 | PLANT | 3,412 | 192,411 |  | - | 39,474 |  | - | 235,297 |
|  | Sub-total | 1,754,568 |  | 3,412 | 192,411 |  | - | 39,474 |  | - | 235,297 |
| General Plant |  |  |  |  |  |  |  |  |  |  |  |
| 340.0 | Office Furniture and Equipment | 528,237 | Sttdplt | 1,027 | 57,928 |  | - | 11,884 |  | - | 70,839 |
| 341.0 | Transportation Equipment | 3,755,588 | STTDPLT | 7,304 | 411,850 |  | - | 84,492 |  | - | 503,645 |
| 343.0 | Tools, Shop and Garage Equipment | 732,821 | StTDPLT | 1,425 | 80,363 |  | - | 16,487 |  | - | 98,275 |
| 344.0 | Laboratory Equipment | 226,761 | StTDPLT | 441 | 24,867 |  | - | 5,102 |  | - | 30,410 |
| 345.0 | Power Operated Equipment | 465,933 | STTDPLT | 906 | 51,096 |  | - | 10,482 |  | - | 62,484 |
| 346.0 | Communication Equipment | 1,047,226 | STTDPLT | 2,037 | 114,842 |  | - | 23,560 |  | - | 140,439 |
| 347.0 | Computer Equipment | 8,416,613 | STTDPLT | 16,368 | 922,992 |  | - | 189,353 |  | - | 1,128,714 |
| 348.0 | Other Tangible Equipment | 737,171 | STTDPLT | 1,434 | 80,840 |  | - | 16,585 |  | - | 98,859 |
| - | Sub-total | 15,910,350 |  | 30,941 | 1,744,779 |  | . | 357,944 |  | - | 2,133,665 |
|  | TOTAL PLANT-IN-SERVICE | 223,792,339 |  | 435,217 | 24,541,774 |  | - | 5,034,782 |  | - | 30,011,773 |

```
Intangible Plant
301.0 Organizational Expense
Franchise & Consents
Sub-total
Source of Supply and Pumping Plant
303.0 Land Rights - Base
303.0 Land Rights - Extra Cap (Max Day)
304.0 Structures and Improvements - Extra Cap (Max Day)
305.0 Collecting & Impounding Resevoirs
306.0 Lake, River & Other Intake - Base
306.0 Lake, River & Other Intake - Extra Cap (Max Day)
Wells and Spring - Bas
308.0 Wells and Springs - Extra Cap (Max Day)
308.0 Infiltration Galleries and Tunnels - Extra Cap (Max Day)
309.0 Supply Mains - Base
309.0 Supply Mains - Extra Cap (Max Day)
310.0 Power Generation Equipment - Base 
310.0 Power Generation Equipment - Extra Cap (Max Hour)
311.0 Pumping Equipment - Base
311.0 Pumping Equipment - Extra Cap (Max Day)
311.0 Pumping Equipment - Extra Cap (Max Hour)
```

```
Sub-total
Water Treatment Plant
320.0 Water Treatment Plant Equipment - Extra Cap (Max Day)
Sub-total
Transmission & DistributionPlant
330.0 Distribution Reservoirs and Standpipes - Base
330.0 Distribution Reservoirs and Standpipes - Extra Cap (Max Hour)
331.0 Transmission and Distribution Mains - Base
331.0 Transmission and Distribution Mains - Extra Cap (Max Day)
331.0 Transmission and Distribution Mains - Extra Cap (Max Hour)
333.0 Services
334.0 Meters and Meter Installations
335.0 Hydrants
339.0 Other Plant and Miscellaneous Eq.
Sub-total
```

( 21,979 ) STTDPLT
$(188,253)$ STTDPLT
$(210,232)$

- BASE_COST

7,644,525) BASE COST
$(8,465,067)$ MAX_DAY
(1,109,126) BASE_COST
$(2,920)$ BASE-COST
$(3,233)$ MAX_DAY
$(234,055)$ BASE COST
$(259,178)$ MAX_DAY
(274) BASE_COST
$(304)$ MAX_DAY
(72,290) BASE_COST
$(80,050)$ MAX DAY
$(114432)$ BASE COST
(126,715) MAX_DAY
$(254,289)$ MAX-HOUR
(809,074) BASE_COST
( 895,917 ) MAX-DAY
$\underset{(21,869,355)}{(1,97,905) \text { MAX }}$
(3,341,864) BASE_COST
$(3,700,571)$ MAX_DAY
$(7,042,435)$
$(7,042,435)$
( 845,319 ) BASE_COST
$(2,814,503)$ MAX_HOUR
$(4,870,949)$ MASE_COST
$(5,393,783)$ MAX_DAY
(10,824,113) MAX_HOUR
$(6,265,157)$ SERV
$(2,74,466)$ METER
$(1,858,054)$ FIRE
$(127,771)$ TDPLT
$(35,744,116)$
$\qquad$ ${ }^{(494)}$
$(4935)$
$(4,730)$ $(2,947)$ $\stackrel{(25,246)}{(28,193)}$ $(49,625)$ $(1,310,956)$ $(7,200)$
$(19)$

| $(21,694)$ | $(573,095)$ |
| :--- | :--- |
| - | $(21,694)$ |

(5.487)
$(21,114)$
$(6,031,468)$

| Acct. No. | Account Description | Amount | Alloc. Factor | Municipal Fire Protection |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | BASE | EXTRA | Cus |  | FIRE_HYD | REV |  | TOTAL |
| General Plant |  |  |  |  |  |  |  |  |  |  |  |
| 340.0 | Office Furniture and Equipment | $(475,488)$ | STTDPLT | (925) | $(52,144)$ |  | - | $(10,697)$ |  | - | $(63,766)$ |
| 341.0 | Transportation Equipment | $(1,417,751)$ | StTDPLT | $(2,757)$ | (155,475) |  | - | $(31,896)$ |  | - | $(190,128)$ |
| 343.0 | Tools, Shop and Garage Equipment | $(322,028)$ | STTDPLT | (626) | $(35,315)$ |  |  | $(7,245)$ |  |  | $(43,186)$ |
| 344.0 | Laboratory Equipment | $(97,128)$ | Sttdplt | (189) | $(10,651)$ |  |  | $(2,185)$ |  |  | $(13,025)$ |
| 345.0 | Power Operated Equipment | $(250,484)$ | STTDPLT | (487) | $(27,469)$ |  | - | $(5,635)$ |  | - | $(33,591)$ |
| 346.0 | Communication Equipment | $(496,428)$ | STTDPLT | (965) | $(54,440)$ |  | - | $(11,168)$ |  | - | $(66,574)$ |
| 347.0 | Computer Equipment | $(4,845,441)$ | StTDPLT | $(9,423)$ | $(531,366)$ |  | - | $(109,011)$ |  |  | $(649,800)$ |
| 348.0 | Other Tangible Equipment | $(335,390)$ | STTDPLT | (652) | $(36,780)$ |  | - | $(7,545)$ |  |  | $(44,978)$ |
| 348.0 | Other | $(1,212)$ | STTDPLT | (2) | (133) |  | - | (27) |  | - | (163) |
|  | Sub-total | $(8,241,350)$ |  | $(16,027)$ | (903,772) |  | - | $(185,410)$ |  | - | $(1,105,210)$ |
| ~ |  |  |  |  |  |  |  |  |  |  |  |
|  | ACCUM DEPREC: COST OF REMOVAL | 5,449,811 | Reserve | 10,452 | 570,064 |  | - | 153,040 |  | - | 733,556 |
|  | ACCUMULATED DEPREC: GAIN/LOSS | 6,142,905 | Reserve | 11,782 | 642,563 |  | - | 172,503 |  | - | 826,848 |
|  | THEORETICAL DEPRE RESERVE-2007 | 3,531,600 | RESERVE | 6,773 | 369,414 |  | - | 99,173 |  | - | 475,361 |
|  | Sub-total | 15,124,317 |  | 29,007 | 1,582,041 |  | - | 424,716 |  | - | 2,035,764 |
|  | total depreciation accrual | (57,983,171) |  | $(111,207)$ | $(6,065,185)$ |  | - | $(1,628,264)$ |  | - | $(7,804,655)$ |
|  | NET PLANT (including CIAC) | 165,809,168 |  | 324,010 | 18,476,590 |  | - | 3,406,518 |  | - | 22,207,117 |
| Plant Adjustments |  |  |  |  |  |  |  |  |  |  |  |
| Adjustments |  |  |  |  |  |  |  |  |  |  |  |
| 271-272 | Net CIAC | (31,657,629) | PLANT | $(61,566)$ | (3,471,676) |  | - | $(712,219)$ |  | - | $(4,245,461)$ |
|  | Sub-total | $(31,657,629)$ |  | $(61,566)$ | $(3,471,676)$ |  | - | $(712,219)$ |  | - | $(4,245,461)$ |
|  | TOTAL CIAC | $(31,657,629)$ |  | $(61,566)$ | $(3,471,676)$ |  | - | $(712,219)$ |  | - | $(4,245,461)$ |
| total | Et PLANT | 134,151,539 |  | 262,445 | 15,004,914 |  | - | 2,694,298 |  | - | 17,961,657 |



EXPENSES

## O \& M Expenses

Production - Source of Supply
Operation Labor and Expenses - Base
601.0 Operation Labor and Expenses - Extra Cap (Max Day)
602.0 Purchased Water
603.0 Miscellaneous Expenses - Base
603.0 Miscellaneous Expenses - Extra Cap (Max Day)
610.0 Maintenance Supervision and Engineering - Bas
610.0 Maintenance Supervision and Engineering - Extra Cap (Max Day) Sub-total
Production - Pumping Expenses
623.0 Fuel or Power Purchased for Pumping Base
623.0 Fuel or Power Purchased for Pumping - Extra Cap (Max Day)
$\begin{array}{ll}\text { 624.0 } & \text { Pumping Labor and Expenses - Base } \\ \text { 624.0 } & \text { Pumping Labor and Expenses - Extra Cap (Max Day) }\end{array}$
624.0 Pumping Labor and Expenses - Extra Cap (Max Hour)
626.0 Miscellaneous Expenses - Base
626.0 Miscellaneous Expenses - Extra Cap (Max Day)
626.0 Miscellaneous Expenses - Extra Cap (Max Hour)
631.0 Maintenance of Structures and Improvements - Bas
631.0 Maintenance of Structures and Improvements - Extra Cap (Max Day)
631.0 Maintenance of Structures and Improvements

Sub-total
Production - Water Treatment Operations and Maintenance Expense 641.0 Chemicals
642.0 Operation Labor and Expenses - Base
642.0 Operation Labor and Expenses - Extra Cap (Max Day)
643.0 Miscellaneous Expenses - Base
643.0
652.0
Miscellaneous Expenses - Extra Cap (Max Day)
Maintenance of Water Treatment Equipment
652.0 Maintenance of Water Treatment Equipment - Extra Cap (Max Day

Sub-total
Production - Other
926.0 Employee Pension and Benefit

PRO FORMA Adjustments to Test Ye
352 \& 926 PRO FORMA Adjustments based on FIVE YEAR AVE

## Sub-total

Total Production Expense TOTAL

| 32,680 | BASE_COST | 212 | - | - | - | - | 212 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 36,188 | MAX_DAY | - | 5,604 | - | - | - | 5,604 |
| 472,407 | BASE_COST | 3,067 |  | - | - | - | 3,067 |
| 7,083 | BASE_COST | 46 | - | - | - |  | 46 |
| 7,843 | MAX_DAY | - | 1,215 | - | - | - | 1,215 |
| 309,175 | BASE_COST | 2,007 |  | - | - | - | 2,007 |
| 342,361 | MAX_DAY | - | 53,020 |  | - |  | 53,020 |
| 1,207,738 |  | 5,332 | 59,839 | - | - | - | 65,171 |
| 989,673 | BASE_COSt | 6,425 | - | - | - | - | 6,425 |
| 162,632 | max_day | - | 25,186 | - | - | - | 25,186 |
| 66,716 | BASE_COST | 433 |  | - | - | - | 433 |
| 73,877 | MAX_DAY | - | 11,441 | - |  | - | 11,441 |
| 148,254 | MAX_HOUR | - | 35,653 | - | - |  | 35,653 |
| 22,574 | BASE_COSt | 147 |  | - | - | - | 147 |
| 24,997 | MAX_DAY | - | 3,871 | - |  | - | 3,871 |
| 50,163 | MAX_HOUR | - | 12,063 | - | - | - | 12,063 |
| 29,266 | BASE_COST | 190 |  | - | - |  | 190 |
| 32,408 | MAX_DAY | - | 5,019 | - |  |  | 5,019 |
| 65,035 | MAX_HOUR | - | 15,640 | - | - | - | 15,640 |
| 1,938,676 |  | 7,604 | 153,397 | - | - | - | 161,001 |
| 908,981 | BASE_COSt | 5,901 | - | - | - | - | 5,901 |
| 192,031 | BASE_COST | 1,247 | - |  |  |  | 1,247 |
| 212,643 | max_Day | - | 32,931 | - |  |  | 32,931 |
| $(80,686)$ | bASE_COSt | (524) |  | - | - | - | (524) |
| $(89,346)$ | MAX_DAY | - | $(13,837)$ | - |  |  | $(13,837)$ |
| 77,080 | BASE_COST | 500 |  | - |  |  | 500 |
| 85,354 | MAX_DAY | - | 13,218 | - | - | - | 13,218 |
| 1,684,196 |  | 9,579 | 32,313 | - | - | - | 41,892 |
| 243,900 | PRODOM | 1,137 | 12,398 | - | - | - | 13,535 |
| 191,839 | PRODOM | 894 | 9,752 |  |  |  | 10,646 |
| 31,539 | PRODOM | 147 | 1,603 | - | - | - | 1,750 |
| 467,277 |  | 2,178 | 23,753 | - | - | - | 25,930 |
| 5,297,887 |  | 24,692 | 269,302 | - | - | - | 293,994 |


| Acct. No. | Account Description | Amount | Alloc. Factor | Municipal Fire Protection |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | BASE | EXTRA | CuS |  | FIRE_HYD | REV |  | TOTAL |
| Transmission \& Distribution O\&M Expenses |  |  |  |  |  |  |  |  |  |  |  |
| 660.0 | Operation Supervision and Engineering | 453,240 | TDOPER | 329 | 35,811 |  | - | - |  | - | 36,140 |
| 662.0 | Transmission \& Distribution Lines Expenses - Base | 47,274 | BASE_COST | 307 |  |  | - | - |  | - | 307 |
| 662.0 | Transmission \& Distribution Lines Expenses - Extra Cap (Max Day) | 52,348 | MAX_DAY | - | 8,107 |  | - | - |  |  | 8,107 |
| 662.0 | Transmission \& Distribution Lines Expenses - Extra Cap (Max Hour) | 105,050 | MAX_HOUR | - | 25,263 |  | - | - |  | - | 25,263 |
| 663.0 | Meter Expenses | 199,593 | metêrs | - |  |  | - | - |  | - |  |
| 664.0 | Customer Installations Expenses | 18,080 | SERV | - | - |  | - | - |  | - | - |
| 665.0 | Miscellaneous Expenses | (596) | TDOPER | (0) | (47) |  | - | - |  | - | (48) |
| 673.0 | Maintenance of Transmission and Distribution Mains - Base | 170,815 | BASE_COST | 1,109 | ) |  | - | - |  | - | 1,109 |
| 673.0 | Maintenance of Transmission and Distribution Mains - Extra Cap (Max Day) | 189,150 | MAX_DAY | - | 29,293 |  | - | - |  | - | 29,293 |
| 673.0 | Maintenance of Transmission and Distribution Mains - Extra Cap (Max Hour) | 379,582 | MAX-HOUR | - | 91,283 |  | - | - |  | - | 91,283 |
| 675.0 | Maintenance of Services | 294,871 | SERV | - | - |  | - | - |  | - | - |
| 676.0 | Maintenance of Meters | 14,214 | METERS | - | - |  | - | - |  | - | - |
| 677.0 | Maintenance of Hydrants | 133,729 | FIRE | - | - |  | - | 133,729 |  | - | 133,729 |
| 921 | Office Supplies and Other Expenses | 112,628 | OMXPAG | 220 | 10,902 |  | 1 | 2,540 |  | - | 13,663 |
| 926 | Employee Pension and Benefits | 378,515 | LABOR | 893 | 33,421 |  | 3 | 8,015 |  | - | 42,332 |
| 950.0 | Maintenance of General Plant | 126,129 | OMXPAG | 246 | 12,209 |  | 1 | 2,845 |  | - | 15,301 |
| 926,950 | PRO FORMA Adjustments to Test Year | 98,367 | TDOM | 112 | 9,021 |  | 0 | 5,654 |  | - | 14,787 |
|  | Sub-total | 2,946,706 |  | 3,352 | 270,225 |  | 6 | 169,384 |  | - | 442,967 |
| Engineering Expenses |  |  |  |  |  |  |  |  |  |  |  |
| 660.0 | Operation Supervision and Engineering | 1,211,076 | ENGOM | 1,816 | 197,455 |  | - | - |  | - | 199,271 |
| 662.0 | Transmission \& Distribution Lines Expenses | 17,709 | BASE_COST | 115 | - |  | - | - |  | - | 115 |
| 662.0 | Transmission \& Distribution Lines Expenses - Extra Cap (Max Day) | 19,610 | MAX_DAY | - | 3,037 |  | - | - |  | - | 3,037 |
| 662.0 | Transmission \& Distribution Lines Expenses - Extra Cap (Max Hour) | 39,352 | MAX_HOUR |  | 9,464 |  | - |  |  |  | 9,464 |
| 660-662 | PRO FORMA Adjustments to Test Year | 11,317 | ENGOM | 17 | 1,845 |  | - | - |  | - | 1,862 |
|  | Sub-total | 1,299,064 |  | 1,948 | 211,801 |  | $\cdot$ | - |  | - | 213,749 |
| Customer Account |  |  |  |  |  |  |  |  |  |  |  |
| 902.0 | Meter Reading Expenses | 118,991 | CUST_METERS | - | - |  | - | - |  | - |  |
| 903.0 | Customer Records and Collection Expenses | 322,306 | BILLS | - | - |  | 56 | - |  |  | 56 |
| 904.0 | Uncollectible Accounts | 48,493 | CUSTS | - | - |  | 8 | - |  | - | 8 |
| 902-904 | PRO FORMA Adjustments to Test Year | 9,700 | custom | 38 | 768 |  | - | - |  | - | 806 |
|  | Sub-total | 499,489 |  | 38 | 768 |  | 64 | - |  | - | 870 |
| Administrative and General Expenses |  |  |  |  |  |  |  |  |  |  |  |
| 920 | Administrative and General Salaries | 2,949,490 | OMXPAG | 5,749 | 285,508 |  | 27 | 66,529 |  | - | 357,814 |
| 921 | Office Supplies and Other Expenses | 518,725 | OMXPAG | 1,011 | 50,212 |  | 5 | 11,700 |  | - | 62,929 |
| 922 | Administrative Expenses Transferred-Cr. | $(1,622,715)$ | OMXPAG | $(3,163)$ | $(157,078)$ |  | (15) | $(36,602)$ |  |  | $(196,858)$ |
| 923 | Outside Services Employed | 385,360 | OMXPAG | 751 | 37,303 |  | ) | 8,692 |  | - | 46,750 |
| 924 | Property Insurance | 487,967 | PLANT | 949 | 53,512 |  | - | 10,978 |  | - | 65,439 |
| 926 | Employee Pension and Benefits | 3,967,529 | LABOR | 9,358 | 350,314 |  | 35 | 84,013 |  |  | 443,720 |
| 928 | Regulatory Commission Expenses | 105,678 | OMXPAG | 206 | 10,230 |  | 1 | 2,384 |  | - | 12,820 |
| 930 | Miscellaneous General Expenses | 154,019 | OMXPAG | 300 | 14,909 |  | 1 | 3,474 |  | - | 18,685 |
| 950.0 | Maintenance of General Plant | 634,318 | OMXPAG | 1,236 | 61,401 |  | 6 | 14,308 |  |  | 76,952 |
| 920-950 | A\&G PRO FORMA Adjustments to Test Year | 551,328 | LABOR | 1,300 | 48,680 |  | 5 | 11,674 |  | - | 61,659 |
| 930.0 | Miscellaneous General Expenses | $(3,288,063)$ | OMXPAG | $(6,409)$ | $(318,282)$ |  | (31) | $(74,166)$ |  | - | $(398,888)$ |
| 930.0 | PRO FORMA Adjustments to Test Year | $(147,764)$ | OMXPAG | (288) | $(14,303)$ |  | (1) | $(3,333)$ |  | - | $(17,926)$ |
|  | Sub-total | 4,695,872 |  | 11,001 | 422,406 |  | 37 | 99,652 |  | - | 533,096 |
|  | TOTAL O \& M EXPENSES | 14,739,018 |  | 41,031 | 1,174,502 |  | 107 | 269,036 |  | - | 1,484,675 |



Labor Expense

| - | Salaries and Wages |
| :--- | :--- |
| $\tilde{\sim}$ | Production <br> Transmission and Distribution and Customer Accounts |
| $\sim$ | Engineering |
| Sub-total |  |

07.0 Amortization Expense Sub-total
total depreciation expenses
Taxes Other Than Income Taxes
408.0 Payroll Taxes

Sub-total
total taxes other than income tax
City Bond Fixed Revenue Requirement (CBFRR) City Bond Fixed Revenue Requirement (CBFRR) total

Income Taxes TOTAL

Debt Service Revenue Requirement
ebt Service Revenue Requirement (DSRR 1.0) otal

Operating Revenues
461.0 Water Sales
466.0 Sales for Resale

471-474 Other Operating Revenue
Sub-tota
total

| 1,774,985 | PRODOM | 8,273 | 90,226 | - | - | - | 98,499 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2,235,577 | tdCusom | 2,199 | 175,795 | 45 | 109,881 |  | 287,921 |
| 1,178,567 | Engom | 1,767 | 192,155 |  |  |  | 193,922 |
| 5,189,129 |  | 12,239 | 458,176 | 45 | 109,881 | - | 580,342 |
| 5,189,129 |  | 12,239 | 458,176 | 45 | 109,881 | - | 580,342 |
| 415,268 | NET_PLANT_IN | 812 | 46,448 | - | 8,340 |  | 55,601 |
| 415,268 |  | 812 | 46,448 | - | 8,340 | - | 55,601 |
| 415,268 |  | 812 | 46,448 | - | 8,340 | - | 55,601 |
| 698,087 | LABOR | 1,647 | 61,638 | 6 | 14,782 |  | 78,073 |
| 4,547,936 | PLANT | 8,845 | 498,741 | - | 102,317 |  | 609,903 |
| 5,246,023 |  | 10,491 | 560,379 | 6 | 117,100 | - | 687,976 |
| 5,246,023 |  | 10,491 | 560,379 | 6 | 117,100 | - | 687,976 |
| 7,729,032 | NET_PLANT_IN | 15,121 | 864,496 | - | 155,230 |  | 1,034,846 |
| 7,729,032 |  | 15,121 | 864,496 | - | 155,230 | - | 1,034,846 |
| 103,249 | NET_PLANT_IN | 202 | 11,548 | - | 2,074 |  | 13,824 |
| 103,249 |  | 202 | 11,548 | - | 2,074 | - | 13,824 |
| 6,999,023 | NET_PLANT_IN | 13,692 | 782,844 | - | 140,568 |  | 937,105 |
| 7,698,925 |  | 15,062 | 861,128 | - | 154,625 | - | 1,030,815 |
| 29,985,479 | revenue | - | - | - | - | 3,444,078 | 3,444,078 |
| 3,321 | Revenue | - | - | - | - | 381 | 381 |
| 417,391 | REVENUE | - | - | - | - | 47,941 | 47,941 |
| 30,406,191 |  | - | - | - | - | 3,492,401 | 3,492,401 |
| 30,406,191 |  | - | - | - | - | 3,492,401 | 3,492,401 |


| Acct. No. | Account Description | Amount | Alloc. Factor | Private Fire Protection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | BASE | EXTRA | cus | FIRE_HYD | REV |  | TOTAL |
| Intangible Plant |  |  |  |  |  |  |  |  |  |  |
| 301.0 | Organizational Expense | 28,856 | StTDPLT | 20 | 1,629 | 217 |  | - | - | 1,867 |
| 302.0 | Franchise \& Consents | 229,132 | StTDPLT | 159 | 12,936 | 1,727 |  | - | - | 14,822 |
|  | Sub-total | 257,988 |  | 179 | 14,565 | 1,944 |  | - | - | 16,689 |
| Source of Supply and Pumping Plant |  |  |  |  |  |  |  |  |  |  |
| 303.0 | Land Rights - Base | 1,033,582 | BASE_COST | 2,396 | - | - |  | - | - | 2,396 |
| 303.0 | Land Rights - Extra Cap (Max Day) | 1,144,524 | MAX_DAY | - | 65,736 | - |  | - | - | 65,736 |
| 304.0 | Structures and Improvements - Base | 20,921,962 | BASE_COST | 48,506 | - | - |  | - | - | 48,506 |
| 304.0 | Structures and Improvements - Extra Cap (Max Day) | 23,167,668 | max_DAY | - | 1,330,647 | - |  | - | - | 1,330,647 |
| 305.0 | Collecting \& Impounding Resevoirs | 4,991,892 | BASE_COST | 11,573 | - | - |  | - | - | 11,573 |
| 306.0 | Lake, River \& Other Intake - Base | 10,555 | BASE_COST | 24 | - | - |  | - | - | 24 |
| 306.0 | Lake, River \& Other Intake - Extra Cap (Max Day) | 11,688 | max_DAY | - | 671 | - |  | - | - | 671 |
| 307.0 | Wells and Springs - Base | 669,627 | basE_COST | 1,552 |  | - |  | - | - | 1,552 |
| 307.0 | Wells and Springs - Extra Cap (Max Day) | 741,503 | MAX_DAY | - | 42,589 | - |  | - | - | 42,589 |
| 308.0 | Infiltration Galleries and Tunnels - Base | 732 | base_cost | 2 |  | - |  | - | - | 2 |
| 308.0 | Infiltration Galleries and Tunnels - Extra Cap (Max Day) | 811 | MAX_DAY | - | 47 | - |  | - | - | 47 |
| 309.0 | Supply Mains - Base | 1,777,408 | BASE_COST | 4,121 |  | - |  | - | - | 4,121 |
| 309.0 | Supply Mains - Extra Cap (Max Day) | 1,968,190 | max_DAY | - | 113,044 | - |  | - | - | 113,044 |
| 310.0 | Power Generation Equipment - Base | 294,625 | basE_COST | 683 |  | - |  | - | - | 683 |
| 310.0 | Power Generation Equipment - Extra Cap (Max Day) | 326,249 | MAX_DAY |  | 18,738 | - |  | - | - | 18,738 |
| 310.0 | Power Generation Equipment - Extra Cap (Max Hour) | 654,708 | MAX-HOUR | - | 97,181 | - |  | - | - | 97,181 |
| 311.0 | Pumping Equipment - Base | 1,492,063 | base_cost | 3,459 |  | - |  | - | - | 3,459 |
| 311.0 | Pumping Equipment - Extra Cap (Max Day) | 1,652,216 | MAX_DAY |  | 94,896 | - |  | - | - | 94,896 |
| 311.0 | Pumping Equipment - Extra Cap (Max Hour) | 3,315,628 | max_Hour | - | 492,154 | - |  | - | - | 492,154 |
|  | Sub-total | 64,175,631 |  | 72,317 | 2,255,703 | - |  | - | - | 2,328,020 |
| Water Treatment Plant |  |  |  |  |  |  |  |  |  |  |
| 320.0 | Water Treatment Plant Equipment - Base | 8,559,529 | BASE_COST | 19,845 | - | - |  | - | - | 19,845 |
| 320.0 | Water Treatment Plant Equipment - Extra Cap (Max Day) | 9,478,285 | MAX_DAY |  | 544,390 | - |  | - | - | 544,390 |
|  | Sub-total | 18,037,813 |  | 19,845 | 544,390 | - |  | - | - | 564,235 |


| Acct. No. | Account Description | Amount | Alloc. Factor | Private Fire Protection |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | BASE | EXTRA | cus | FIRE_HYD |  | REV |  | TOTAL |
| Transmission \& DistributionPlant |  |  |  |  |  |  |  |  |  |  |  |
| 330.0 | Distribution Reservoirs and Standpipes - Base | 1,953,818 | BASE_COST | 4,530 | - | - |  | - |  | - | 4,530 |
| 330.0 | Distribution Reservoirs and Standpipes - Extra Cap (Max Hour) | 6,505,266 | MAX_HOUR |  | 965,606 | - |  | - |  | - | 965,606 |
| 331.0 | Transmission and Distribution Mains - Base | 19,893,956 | base_cost | 46,122 |  | - |  | - |  | - | 46,122 |
| 331.0 | Transmission and Distribution Mains - Extra Cap (Max Day) | 22,029,318 | max_DAY | - | 1,265,266 | - |  | - |  | - | 1,265,266 |
| 331.0 | Transmission and Distribution Mains - Extra Cap (Max Hour) | 44,207,897 | max-Hour | - | 6,561,979 | - |  | - |  | - | 6,561,979 |
| 333.0 | Services | 17,180,643 | SERV | - | - | 1,546,069 |  | - |  | - | 1,546,069 |
| 334.0 | Meters and Meter Installations | 6,849,453 | meters | - | - |  |  | - |  | - |  |
| 335.0 | Hydrants | 4,615,836 | FIRE | - |  |  |  |  |  |  |  |
| 339.0 | Other Plant and Miscellaneous Eq. | 419,801 | TDPLT | 173 | 29,953 | 5,267 |  | - |  | - | 35,392 |
|  | Sub-total | 123,655,988 |  | 50,825 | 8,822,803 | 1,551,336 |  | - |  | - | 10,424,964 |
| Other Plant |  |  |  |  |  |  |  |  |  |  |  |
|  | CWIP | 1,754,568 | PLANT | 1,219 | 99,059 | 13,222 |  | - |  | - | 113,499 |
|  | Sub-total | 1,754,568 |  | 1,219 | 99,059 | 13,222 |  | - |  | - | 113,499 |
| General Plant |  |  |  |  |  |  |  |  |  |  |  |
| 340.0 | Office Furniture and Equipment | 528,237 | StTDPLT | 367 | 29,823 | 3,981 |  | - |  | - | 34,170 |
| 341.0 | Transportation Equipment | 3,755,588 | STTDPLT | 2,608 | 212,032 | 28,300 |  | - |  |  | 242,940 |
| 343.0 | Tools, Shop and Garage Equipment | 732,821 | STTDPLT | 509 | 41,373 | 5,522 |  |  |  | - | 47,404 |
| 344.0 | Laboratory Equipment | 226,761 | STTDPLT | 157 | 12,802 | 1,709 |  | - |  |  | 14,669 |
| 345.0 | Power Operated Equipment | 465,933 | STTDPLT | 324 | 26,305 | 3,511 |  |  |  | - | 30,140 |
| 346.0 | Communication Equipment | 1,047,226 | STTDPLT | 727 | 59,124 | 7,891 |  |  |  |  | 67,743 |
| 347.0 | Computer Equipment | 8,416,613 | STTDPLT | 5,846 | 475,182 | 63,424 |  | - |  | - | 544,451 |
| 348.0 | Other Tangible Equipment | 737,171 | STTDPLT | 512 | 41,619 | 5,555 |  | - |  | - | 47,686 |
| - | Sub-total | 15,910,350 |  | 11,051 | 898,260 | 119,893 |  | - |  | - | 1,029,204 |
|  | TOTAL PLANT-IN-SERVICE | 223,792,339 |  | 155,435 | 12,634,781 | 1,686,394 |  | - |  | - | 14,476,610 |

Amount
Alloc. Factor


EXTRA Priva
cus
ate Fire Protectio
$\qquad$

Accumulated Reserve for Depreciation

> Intangible Plant 301.0 $\begin{aligned} & \text { Organizational Expense } \\ & 302.0 \\ & \text { Franchise \& Consents } \\ & \text { Sub-total }\end{aligned}$

Source of Supply and Pumping Plant
303.0 Land Rights - Base
303.0 Land Rights - Extra Cap (Max Day)
304.0 Structures and Improvements - Extra Cap (Max Day)
305.0 Collecting \& Impounding Resevoirs
06.0 Lake, River \& Other Intake - Base
306.0 Lake, River \& Other Intake - Extra Cap (Max Day)
7.0 Wells and Springs - Extra
08.0 Infiltration Galleries and Tunnels - Base
308.0 Infiltration Galleries and Tunnels - Extra Cap (Max Day
09.0 Supply Mains - Base
$\begin{array}{lll}\text { 309.0 } & \text { Supply Mains - Extra Cap (Max Day) } \\ \text { 10.0 } & \text { Power Generation Equipment }\end{array}$
310.0 Power Generation Equipment - Extra Cap (Max Day)
310.0 Power Generation Equipment - Extra Cap (Max Hour)
11.0 Pumping Equipment - Base
11.0 Pumping Equipment - Extra Cap (Max Day)
11.0 Pumping Equipment - Extra Cap (Max Hour)

## Water Treatment Plant

320.0 Water Treatment Plant Equipment - Base
20.0 Water Treatment Plant Equipment - Extra Cap (Max Day) Sub-total

## Transmission \& DistributionPlant

330.0 Distribution Reservoirs and Standpipes - Base
330.0 Distribution Reservoirs and Standpipes - Extra Cap (Max Hour)

Transmission and Distribution Mains - Base
331.0 Transmission and Distribution Mains - Extra Cap (Max Day)
331.0 Transmission and Distribution Mains - Extra Cap (Max Hour)

| 33.0 | Services |
| :--- | :--- |
| 34.0 | Meters and |

335.0 Hyders and Meter Installations
339.0 Other Plant and Miscellaneous Eq

Sub-total
( 21,979 ) STTDPLT
$(188,253)$ STTDPLT $(210,232)$
(15)
$(1,241)$
$(10,628)$
$(11,869)$
$(11,869)$

- base_cost
(7,644,525) MASE_COS
$(7,644,526)$ BASE_COST
$(8,465,067)$ MAX_DAY
$(1,109,126)$ BASE_COST
$(2,920)$ BASE_COS
$(3,233)$ MAX DAY
$(234,055)$ BASE_COST
$(259,178)$ MAX_DAY
(274) BASE-COST
(304) MAX_DAY
$(72,290)$ BASE_COST
$(80,050)$ MAX D- DA
$(114,432)$ BASE_COS
$(126,7159$ MAX_DAY
$(254,289)$ MAX_HOUR

$(895,917)$ MAX_DAY
$(1,797,905)$ MAX_HOUR
$(21,869,355)$
( $3,341,864$ ) BASE_COST
$(3,34,864)$ BASE_COS
$(3,700,571)$ MAX_DAY
$(7,042,435)$
$(3,704,571)$
$(7,04,435)$
$(845,319)$ BASE_COST
( $2,814,503$ ) MAX_HOUR ( $4,870,949$ ) BASE_COST (5,393,783) MAX_DAY (10,824,113) MAX-HOUR $(2,744,466)$ METERS (1,858,054) FIRE $(1,858,054)$ FIRE
$(127,771)$ TDPLT
(35,744,116)
$(131)$
$(146)$
- 

$(17,723)$
$(2,571)$
$(486,196)$
$(7)$
-
$(543)$
(186)
$(14,886)$
(17)
(168)
$(4,598)$
$(7,278)$
$(37,745)$
$(51,457)$
$(266,871)$
$(869,234)$

| $(7,748)$ | $(212,54$ |
| ---: | :--- |
| - |  |

$(166)$
$(1,419)$

| - | - | - | $(212,548)$ |
| ---: | :---: | :---: | ---: |
| - | - | - | $(220,292)$ |
|  |  |  |  |
| - | - | - | $(1,960)$ |
| - | - | - | $(417,769)$ |
| - | - | - | $(31,293)$ |
| - | - | - | $(1,606,672)$ |
| $(563,795)$ | - | - | $(563,795)$ |
| - | - | - | - |
| $(1,603)$ |  | - | $(10,772)$ |
| $(565,398)$ |  | $(2,922,056)$ |  |


| Acct.No. | Account Description | Amount | Alloc. Factor | Private Fire Protection |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | BASE | EXTRA | cus | FIRE_HYD |  | REV |  | TOTAL |
| General Plant |  |  |  |  |  |  |  |  |  |  |  |
| 340.0 | Office Furniture and Equipment | $(475,488)$ | STTDPLT | (330) | (26,845) | $(3,583)$ |  | - |  |  | $(30,758)$ |
| 341.0 | Transportation Equipment | (1,417,751) | StTDPLT | (985) | $(80,043)$ | $(10,684)$ |  |  |  | - | $(91,711)$ |
| 343.0 | Tools, Shop and Garage Equipment | $(322,028)$ | STTDPLT | (224) | $(18,181)$ | $(2,427)$ |  | - |  |  | $(20,831)$ |
| 344.0 | Laboratory Equipment | $(97,128)$ | STTDPLT | (67) | $(5,484)$ | (732) |  | - |  |  | $(6,283)$ |
| 345.0 | Power Operated Equipment | $(250,484)$ | StTDPLT | (174) | $(14,142)$ | $(1,888)$ |  |  |  | - | $(16,203)$ |
| 346.0 | Communication Equipment | $(496,428)$ | STTDPLT | (345) | $(28,027)$ | $(3,741)$ |  | - |  | - | $(32,113)$ |
| 347.0 | Computer Equipment | $(4,845,441)$ | STTDPLT | $(3,365)$ | $(273,562)$ | $(36,513)$ |  | - |  |  | $(313,440)$ |
| 348.0 | Other Tangible Equipment | $(335,390)$ | STTDPLT | (233) | $(18,935)$ | $(2,527)$ |  | - |  | - | $(21,696)$ |
| 348.0 | Other | $(1,212)$ | STTDPLT | (1) | (68) | (9) |  | - |  | - | (78) |
|  | Sub-total | $(8,241,350)$ |  | $(5,724)$ | $(465,287)$ | $(62,103)$ |  | - |  | - | $(533,114)$ |
| $\sim$ |  |  |  |  |  |  |  |  |  |  |  |
|  | ACCUM DEPREC: COST OF REMOVAL | 5,449,811 | Reserve | 3,733 | 290,897 | 46,895 |  | - |  | - | 341,525 |
|  | ACCUMULATED DEPREC: GAIN/LOSS | 6,142,905 | ReSERVE | 4,208 | 327,892 | 52,859 |  | - |  | - | 384,959 |
|  | THEORETICAL DEPRE RESERVE-2007 | 3,531,600 | RESERVE | 2,419 | 188,508 | 30,389 |  | - |  | - | 221,316 |
|  | Sub-total | 15,124,317 |  | 10,360 | 807,297 | 130,144 |  | - |  | - | 947,800 |
|  | total depreciation accrual | (57,983,171) |  | $(39,717)$ | $(3,094,991)$ | $(498,942)$ |  | - |  | - | $(3,633,649)$ |
|  | NET PLANT (including CIAC) | 165,809,168 |  | 115,718 | 9,539,790 | 1,187,453 |  | - |  | - | 10,842,961 |
| Plant Adjustments |  |  |  |  |  |  |  |  |  |  |  |
| Adjustments |  |  |  |  |  |  |  |  |  |  |  |
| 271-272 | Net CIAC | $(31,657,629)$ | PLANT | $(21,988)$ | $(1,787,314)$ | $(238,557)$ |  | - |  | - | $(2,047,859)$ |
|  | Sub-total | $(31,657,629)$ |  | $(21,988)$ | $(1,787,314)$ | $(238,557)$ |  | - |  | - | $(2,047,859)$ |
|  | total ciac | $(31,657,629)$ |  | $(21,988)$ | $(1,787,314)$ | $(238,557)$ |  | - |  | - | $(2,047,859)$ |
| total | Et PLANT | 134,151,539 |  | 93,730 | 7,752,476 | 948,896 |  | - |  | - | 8,795,102 |



## EXPENSES

O \& M Expenses

Production - Source of Supply
01.0 Operation Labor and Expenses - Base
601.0 Operation Labor and Expenses - Extra Cap (Max Day)
02.0 Purchased Water
03.0 Miscellaneous Expenses - Base
03.0 Miscellaneous Expenses - Extra Cap (Max Day)
10.0 Maintenance Supervision and Engineering - Extra Cap (Max Day) Sub-total

Production - Pumping Expenses
23.0 Fuel or Power Purchased for Pumping Base
23.0 Fuel or Power Purchased for Pumping - Extra Cap (Max Day)
24.0 Pumping Labor and Expenses - Base

624.0 Pumping Labor and Expenses - Extra Cap (Max Hour)
26.0 Miscellaneous Expenses - Base
26.0 Miscellaneous Expenses - Extra Cap (Max Day
631.0 Maintenance of Structures and Improvements - Base
631.0 Maintenance of Structures and Improvements - Extra Cap (Max Day)
331.0 Maintenance of Structures and Improvement

Sub-tota
Production - Water Treatment Operations and Maintenance Expense
41.0 Chemicals
42.0 Operation Labor and Expenses - Base

430 Miscell Labor and Expenses
643.0 Miscellaneous Expenses - Extra Cap (Max Day)
652.0 Maintenance of Water Treatment Equipment - Extra Cap (Max Day) Sub-total
Production - Other
26.0 Employee Pension and Benefi

52 \& 926 PRO FORMA Adjustments based on FIVE YEAR AVE
36,188 MAX_DAY
472,407 BASE_COST
7,083 BASE_COST
$7,843 \mathrm{MAX}$ DAY
309,175 BASE_COST
342,361 MAX_DAY
1,207,738
${ }^{76}$

989,673 BASE COST 162,632 MAX DAY 62,632
66,716
BASE_COS 73,877 MAX_DAY 148,254 MAX-HOUR 22,574 BASE ECOST 24,997 MAX_DAY 50,163 MAX HOUR 29,266 BASE ECOST 32,408 MAX_DAY 65,035 MAX_HOUR -938,676

908,981 BASE COS 192,031 BASE_COS 212,643 MAX-DAY $(80,686)$ BASE_COS $(89,346)$ MAX_DAY 85,354 MAX_DAY 1,684,196

243,900 PRODOM 191,839 PRODOM ${ }_{467,277}^{31,539}$ PRODON

5,297,887

|  | - | - | - | 76 |
| :---: | :---: | :---: | :---: | :---: |
| 2,078 | - | - | - | 2,078 |
| - | - | - |  | 1,095 |
| - | - | - |  | 16 |
| 450 | - | - | - | 450 |
|  | - | - |  | 717 |
| 19,664 | - | - | - | 19,664 |
| 22,193 | - | - | - | 24,097 |
| - | - | - | - | 2,294 |
| 9,341 | - | - | - | 9,341 |
|  | - | - | - | 155 |
| 4,243 | - | - | - | 4,243 |
| 22,006 | - | - |  | 22,006 |
|  | - | - |  | 52 |
| 1,436 | - | - | - | 1,436 |
| 7,446 | - | - |  | 7,446 |
|  | - | - |  | 68 |
| 1,861 | - | - | - | 1,861 |
| 9,653 | - | - | - | 9,653 |
| 80,803 | - | - | - | 83,519 |
| - | - | - | - | 2,107 |
| - | - | - |  | 445 |
| 12,213 | - | - |  | 12,213 |
|  | - | - |  | (187) |
| $(5,132)$ | - | - | - | (5,132) |
|  |  |  |  | 179 |
| 4,902 | - | - | - | 4,902 |
| 11,984 | - | - | - | 15,405 |
| 5,805 | - | - | - | 6,211 |
| 4,566 | - | - |  | 4,886 |
| 751 | - | - | - | 803 |
| 11,122 | - | - | - | 11,900 |
| 126,102 | - | - | - | 134,920 |




| $\quad-\quad$ Salaries and Wages |  |
| :--- | :--- |
| $\tilde{\sim}$ | Production <br> $\sim$ |
| Transmission and Distribution and Customer Accounts |  |
|  | Engineering |
| Sub-total |  |

07.0 Amortization Expense

Sub-total
Total depreciation expenses
Taxes Other Than Income Taxes
408.0 Payroll Taxes

Sub-total
total taxes other than income tax
City Bond Fixed Revenue Requirement (CBFRR)
City Bond Fixed Revenue Requirement (CBFRR)
total
Income Taxes
Tax Expens
TOTAL

Debt Service Revenue Requirement
Debt Service Revenue Requirement (DSRR 1.0
TOTAL

```
Operating Revenues
461.0 Water Sales
466.0 Sales for Resale
471-474 Other Operating Revenue
```

sub-tota
total

| 1,774,985 | PRODOM | 2,955 | 42,249 | - | - | - | 45,203 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2,235,577 | TDCUSOM | 785 | 97,091 | 32,681 | - |  | 130,558 |
| 1,178,567 | ENGOM | 631 | 107,103 | 0 | - |  | 107,734 |
| 5,189,129 |  | 4,371 | 246,443 | 32,681 | - | - | 283,495 |
| 5,189,129 |  | 4,371 | 246,443 | 32,681 | - | - | 283,495 |
| 415,268 | NET_PLANT_IN | 290 | 23,998 | 2,937 | - | - | 27,225 |
| 415,268 |  | 290 | 23,998 | 2,937 | - | - | 27,225 |
| 415,268 |  | 290 | 23,998 | 2,937 | - | - | 27,225 |
| 698,087 | LABOR | 588 | 33,154 | 4,397 | - | - | 38,138 |
| 4,547,936 | PLANT | 3,159 | 256,766 | 34,271 |  |  | 294,196 |
| 5,246,023 |  | 3,747 | 289,919 | 38,668 | - | - | 332,334 |
| 5,246,023 |  | 3,747 | 289,919 | 38,668 | - | - | 332,334 |
| 7,729,032 | NET_PLANT_IN | 5,400 | 446,653 | 54,670 | - |  | 506,723 |
| 7,729,032 |  | 5,400 | 446,653 | 54,670 | - | - | 506,723 |
| 103,249 | NET_PLANT_IN | 72 | 5,967 | 730 | - | - | 6,769 |
| 103,249 |  | 72 | 5,967 | 730 | - | - | 6,769 |
| 6,999,023 | NET_PLANT_IN | 4,890 | 404,466 | 49,506 | - | - | 458,863 |
| 7,698,925 |  | 5,379 | 444,913 | 54,457 | - | - | 504,749 |
| 29,985,479 | Revenue | - | - | - | - | 1,211,418 | 1,211,418 |
| 3,321 | REVENUE | - |  |  | - | 134 | 134 |
| 417,391 | REVENUE | - | - | - | - | 16,863 | 16,863 |
| 30,406,191 |  | - | - | - | - | 1,228,415 | 1,228,415 |
| 30,406,191 |  | - | - | - | - | 1,228,415 | 1,228,415 |


| Line No. | (A) |  | (B) | (C) | (D) | (E) | (F) | (G) | (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Proposed Total Revenue Requirement | \$ | 35,510,803 |  |  |  |  |  |  |
| 2 | Proposed Municipal Fire Revenue | \$ | 4,259,415 |  |  |  |  |  |  |
| 3 | Proposed Private Fire Revenue | \$ | 2,075,949 |  |  |  |  |  |  |
|  | Special Contract Fixed Fee Revenue | \$ | 606,443 |  |  |  |  |  |  |
| 5 | Collect from GM Rates and Contract Volumetric Rates | \$ | 28,568,996 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 6 | GM Rate Increase Required |  | $7.8 \%$ |  |  |  |  |  |  |
| 7 | Contract Customer Meter Charge Revenues |  |  |  |  |  |  |  |  |
|  |  |  |  | Anheuser-Busch | Hudson | Pennichuck East | Milford | Tyngsboro |  |
| 8 | Meter Size - Meter 1 |  |  | 6 " |  | $1{ }^{17}$ |  | $6{ }^{\prime \prime}$ |  |
| 9 | Meter Size - Meter 2 |  |  | $6 "$ |  |  |  | n/a |  |
| 10 | Current Meter Charge - Meter 1 |  |  | \$1,002.35 |  | \$38.75 |  | \$42.31 |  |
| 11 | Current Meter Charge - Meter 2 |  |  | \$1,002.35 |  |  |  |  |  |
| 12 | Proposed Meter Charge - Meter 1 |  |  | \$1,081.00 |  | \$41.79 |  | \$45.63 |  |
| 13 | Proposed Meter Charge - Meter 2 |  |  | \$1,081.00 |  |  |  |  |  |
| 14 | Pro Forma TY Current Meter Charge Revenue |  |  | \$24,056 | \$0 | \$465 | \$0 | \$508 | \$25,029 |
| 15 | Proposed Meter Charge Revenue |  |  | \$25,944 | \$0 | \$501 | \$0 | \$548 | \$26,993 |
| 16 | Volumetric Revenue |  |  |  |  |  |  |  |  |
|  |  | General Metered |  | Anheuser-Busch | Hudson | Pennichuck East | Milford | Tyngsboro |  |
| 17 | Volume (CCF) |  | 4,447,137 | 408,795 | 32,411 | 146,390 | 37,993 | 145,893 |  |
| 18 | Current Rate (\$ per CCF) |  | \$3.660 | \$1.062 | \$2.325 | \$1.264 | \$2.303 | \$2.294 |  |
| 19 | Proposed Rate (\$ per CCF) |  | \$3.95 | \$1.145 | \$2.507 | \$1.363 | \$2.484 | \$2.474 |  |
| 20 | Pro Forma TY Five Year Ave. Volumetric Revenue |  | \$16,276,521 | \$434,140 | \$75,343 | \$184,964 | \$87,498 | \$334,694 | \$17,393,161 |
| 21 | $\underline{\text { Proposed Volumetric Revenue }}$ |  | \$17,553,738 | \$468,207 | \$81,255 | \$199,478 | \$94,364 | \$360,957 | \$18,758,000 |
| 22 | GM Meter Revenue |  |  |  |  |  |  |  |  |
|  | Meter Size |  | Count | Current Rate | Proposed Rate | Proposed Monthly Revenue | Pro Forma TY Current Revenue | Proposed Annual Revenue |  |
| 24 | 5/8" |  | 26,010 | \$22.58 | \$24.35 | \$633,392 | \$7,047,670 | \$7,600,699 |  |
| 25 | 3/4" |  | 556 | \$32.50 | \$35.05 | \$19,488 | \$216,840 | \$233,855 |  |
| 26 | $1{ }^{\prime \prime}$ |  | 591 | \$52.35 | \$56.46 | \$33,367 | \$371,266 | \$400,399 |  |
| 27 | $11 / 2^{\prime \prime}$ |  | 447 | \$102.02 | \$110.03 | \$49,181 | \$547,235 | \$590,177 |  |
| 28 | 2 " |  | 277 | \$167.02 | \$180.13 | \$49,895 | \$555,174 | \$598,739 |  |
| 29 | $3 "$ |  | 58 | \$306.28 | \$330.31 | \$19,158 | \$213,171 | \$229,898 |  |
| 30 | $4 "$ |  | 10 | \$505.15 | \$544.79 | \$5,448 | \$60,618 | \$65,375 |  |
| 31 | $6{ }^{\prime \prime}$ |  | 5 | \$1,002.35 | \$1,081.00 | \$5,405 | \$60,141 | \$64,860 |  |
| 32 | $8 "$ |  |  | \$1,599.15 | \$1,724.64 | \$0 | \$0 | \$0 |  |
| 33 | $10^{\prime \prime}$ |  |  | \$2,295.22 | \$2,475.33 | \$0 | \$0 | \$0 |  |
|  |  |  |  |  |  | \$815,334 | \$9,072,115 | \$9,784,003 |  |
| 34 | Total TY Revenues with Five Year Pro Forma | \$ | 31,101,191 |  |  |  |  |  |  |
| 35 | Total System Proposed Revenue Collected | \$ | 35,510,803 |  |  |  |  |  |  |
| 36 | Total System Proposed Revenue to be Collected | \$ | 35,510,803 |  |  |  |  |  |  |


|  | (A) | (B) | (C) | (D) | (E) | (F) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No. | Description | Base | Max Day | Excess | \% Base | \% Excess |  |  |  |
|  |  |  |  | C-B | B / C | 1 - E |  |  |  |
| 1 | Base/Ex Cap - Max Day | 9.10 | 19.18 | 10.08 | 47\% | 53\% |  |  |  |
|  | (A) | (B) | (C) | (D) | (E) | (F) |  |  |  |
|  | Description | Base | Max Hour | Excess | \% Base | \% Excess |  |  |  |
|  |  |  |  | C-B | B / C | 1 - E |  |  |  |
| 2 | Base/Ex Cap - Max Hour | 9.10 | 39.41 | 30.31 | 23\% | 77\% |  |  |  |
|  | (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (1) |
|  | Description | Base | Max Day | Max Hour | Excess Day | Excess Hour | \% Base | \% Excess Day | \% Excess Hour |
|  |  |  |  |  | C-B | D-C | B/D | E/D | F/D |
| 3 | Base/Max Day/Max Hour | 9.10 | 19.18 | 39.41 | 10.08 | 20.23 | 23\% | 26\% | 51\% |


|  | $(\mathrm{A})$ | $(\mathrm{B})$ |  | $(\mathrm{C})$ |
| :---: | :--- | ---: | ---: | :---: |
| Line No. | Customer Class | Number of Customers | Number of Bills | Metered? |
| 1 | General Water | 27,954 | 335,448 | Y |
| 2 | Private Fire | 911 | 10,932 | N |
| 3 | Muni Fire | 5 | 60 | N |
| 4 | Total | $\mathbf{2 8 , 8 7 0}$ | $\mathbf{3 4 6 , 4 4 0}$ |  |


|  | (A) |  | (B) | $\begin{gathered} \text { (C) } \\ \hline \text { Allocation } \\ \text { Factor } \end{gathered}$ | (D) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No. | Customer Class | 3/4" Equivalents |  |  |  |  |  |  |  |
| 1 | General Water |  | 30,302 | 91.2\% |  |  |  |  |  |
| 2 | Private Fire |  | 2,934 | 8.8\% |  |  |  |  |  |
| 3 | Muni Fire |  | 0 | 0.0\% |  |  |  |  |  |
| 4 | Total |  | 33,236 | 100.0\% |  |  |  |  |  |
|  | (A) |  | (B) | (C) |  | (E) | (F) | (G) | (H) |
|  |  | Weighting Factor$\left(3 / 4^{\prime \prime}=1\right)$ |  | General Water |  | Private Fire |  | Muni Fire |  |
|  | Service Size |  |  | Service Count | Weighing | Service Count | Weighing | Service Count | Weighing |
| 5 | 3/4" |  | 1.00 | 14,785 | 14,785 | 0 | 0 |  | 0 |
| 6 | $1{ }^{1 \prime}$ |  | 1.02 | 10,363 | 10,575 | 0 | 0 |  | 0 |
| 7 | $11 / 2^{\prime \prime}$ |  | 1.15 | 740 | 849 | 0 | 0 |  | 0 |
| 8 | $2{ }^{2}$ |  | 1.23 | 1,162 | 1,431 | 37 | 46 |  | 0 |
| 9 | $3 "$ |  | 4.47 | 3 | 13 | 0 | 0 |  | 0 |
| 10 | 4" |  | 4.47 | 488 | 2,183 | 134 | 600 |  | 0 |
| 11 | $6 "$ |  | 4.57 | 94 | 430 | 424 | 1,938 |  | 0 |
| 12 | 8" |  | 1.15 | 0 | 0 | 294 | 337 |  | 0 |
| 13 | 10" |  | 1.23 | 3 | 4 | 7 | 9 |  | 0 |
| 14 | 12 " |  | 4.47 | 7 | 31 |  | 0 |  | 0 |
| 15 | 16" |  | 4.57 | 0 | 0 | 1 | 5 |  | 0 |
| 16 | Totals |  | 29 | 27,645 | 30,302 | 897 | 2,934 |  | 0 |
|  | (A) |  | (B) |  |  |  |  |  |  |
|  | Meter Size |  | Unit Cost |  |  |  |  |  |  |
| 17 | 3/4" | \$ | 2,975.50 |  |  |  |  |  |  |
| 18 | $1{ }^{1 \prime}$ | \$ | 3,036.51 |  |  |  |  |  |  |
| 19 | 1 1/2" | \$ | 3,414.18 |  |  |  |  |  |  |
| 20 | $2{ }^{\prime \prime}$ | \$ | 3,663.32 |  |  |  |  |  |  |
| 21 | $3 "$ | \$ | 13,313.22 |  |  |  |  |  |  |
| 22 | $4{ }^{\prime \prime}$ | \$ | 13,313.22 |  |  |  |  |  |  |
| 23 | $6{ }^{\text {" }}$ | \$ | 13,601.67 |  |  |  |  |  |  |
| 24 | 8" | \$ | 16,398.92 |  |  |  |  |  |  |
| 25 | 10" | \$ | 19,561.62 |  |  |  |  |  |  |
| 26 | 12" | \$ | 19,561.62 |  |  |  |  |  |  |
| 27 | $16 "$ | \$ | 29,342.43 |  |  |  |  |  |  |


|  |  | Annual Average |  | (C) | (D) | Max Day |  | (G) | (H) | Max Hour |  | (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (A) | (B) |  |  | (E) | (F) |  |  | (1) | (J) |  |
| Line No. | Customer Class | CCF | MGD | \% | \% <br> Avg. Day | Amount MGD | $\begin{gathered} \text { Excess } \\ =(B)-(E) \end{gathered}$ | \% | \% of <br> Avg. Day | Amount MGD | $\begin{aligned} & \text { Excess } \\ & =(\mathrm{I})-(\mathrm{E}) \end{aligned}$ | \% |
| 1 | General Water | 4,402,399 | 9.02 | 99.12\% | 188\% | 16.96 | 7.94 | 78.77\% | 325\% | 29.32 | 12.36 | 61.11\% |
| 2 | Municipal Fire | 28,832 | 0.06 | 0.65\% | 0 | 1.62 | 1.56 | 15.49\% | 0 | 6.48 | 4.86 | 24.05\% |
| 3 | Private Fire | 10,297 | 0.02 | 0.23\% | 0 | 0.60 | 0.58 | 5.74\% | 0 | 3.60 | 3.00 | 14.84\% |
| 4 | Total: Fire Service | 39,130 | 0.08 | 0.88\% | 0 | 2.22 | 2.14 | 21.23\% | 0 | 10.09 | 7.87 | 38.89\% |
| 5 | Grand Total | 4,441,529 | 9.10 | 100.00\% | 1.88 | 19.18 | 10.08 | 100.00\% | 3.25 | 39.41 | 20.23 | 100.00\% |

## 2018 Test Year Billed Revenues Total Sales

|  | $(\mathrm{A})$ | $(\mathrm{B})$ | $(\mathrm{C})$ | $(\mathrm{D})$ | $(\mathrm{E})$ |
| :---: | :--- | ---: | :--- | ---: | ---: |
| Line No. | Customer Class | General Water | Muni Fire | Private Fire | Total |
| 1 | Volumetric Charge | $\$ 16,282,223$ |  |  | $\$ 16,282,223$ |
| 2 | Meter Charge Revenue | $\$ 9,002,557$ |  |  | $\$ 9,002,557$ |
| 3 | Fixed Fee |  | $\$ 3,444,078$ | $\$ 1,211,418$ | $\$ 4,655,497$ |
| 4 | Unbilled | $\$ 45,014$ |  |  |  |
| 5 | Total | $\$ 25,329,794$ | $\$ 3,444,078$ | $\$ 1,211,418$ | $\$ 29,940,277$ |


[^0]:    ${ }^{1}$ Principles of Public Utility Rates, Public Utility reports, Inc. by James C. Bonbright, Albert L. Danielsen and David R. Kamerschen. Second edition March 1988, pp. 383-384.
    ${ }^{2}$ See, Docket No. DW 10-091, Pennichuck Water Works, Inc., Testimony of John R. Palko, April 2010. See also, Docket No. DW 17-071, Testimony of Donald L. Ware, Attachment DLW-1, Cost of Service Study, April 2017 by Raftelis Financial Consultants, Inc.
    ${ }^{3}$ AWWA Cost Manual, Principles of Water Rates, Fees and Charges, M1 Sixth Edition.

[^1]:    ${ }^{4}$ Uniform System of Accounts for Water Utilities, Published by the N.H. Public Utilities Commission, June 2015.
    ${ }^{5} 1 \mathrm{CCF}=748$ gallons.

[^2]:    Eq.

