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**Market to Cost Comparison of Service Company Charges to  
New Jersey American Water Company**

**12 Months Ended March 31, 2017**

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August 2017



**New Jersey American Water Company  
Market to Cost Comparison of Service Company Charges  
12 Months Ended March 31, 2017**

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### **Purpose of This Study**

This study was undertaken to answer four questions concerning the services provided by American Water Works Service Company, Inc., (Service Company) to New Jersey American Water Company (NJAW):

1. Were the Service Company's charges to NJAW during the 12 months ended March 31, 2017 reasonable?
2. Was NJAW charged the lower of cost or market for managerial and professional services provided by the Service Company during the 12 months ended March 31, 2017?
3. Were 12 months ended March 31, 2017 costs of Service Company's customer accounts services, including those of the National Call Centers, comparable to those of other utilities?
4. Are the services NJAW receives from the Service Company necessary?

### **Study Results**

Concerning question 1, the following conclusion was reached:

- The Service Company's 2016 cost per NJAW customer is reasonable compared to costs per customer for electric and combination electric/gas service companies. During the 12 months ended March 31, 2017 NJAW was charged \$58 per customer for administrative and general (A&G)-related services provided by the Service Company. This compares to an average of \$113 per customer for service companies reporting to the Federal Energy Regulatory Commission (FERC). Nineteen of the 25 utility service companies that filed a FERC Form 60 for 2016 had higher per customer A&G costs than NJAW's charges from the Service Company.

Concerning question 2, the following conclusions were drawn from this study:

- NJAW was charged the lower of cost or market for managerial and professional services during the 12 months ended March 31, 2017.
- On average, the hourly rates for outside service providers are 36% higher than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by NJAW without careful supervision on the part of NJAW. If these services were contracted entirely to outside providers, NJAW would have to add at least three positions to manage activities of outside firms. These positions would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been outsourced during the 12 months ended March 31, 2017, NJAW and its ratepayers would have incurred almost \$16.2 million in additional expenses. This amount includes the higher cost of outside providers and the cost of three NJAW positions needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to NJAW from its use of the Service Company. Outside service providers generally bill for



## I – Introduction

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every hour worked. Service Company exempt personnel, on the other hand, charge a maximum of 8 hours per day even when they work more hours. If all overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$16.2 million cited above.

- It would be difficult for NJAW to find local service providers with the same specialized water and wastewater industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water and wastewater companies. This specialization brings with it a unique knowledge of water and wastewater utility operations and regulation that is most likely unavailable from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from NJAW ratepayers.

Concerning question 3, the following conclusion was reached:

- The cost of the Service Company's customer accounts services, including those provided by the National Call Centers, is well below the average of the neighboring electric utility comparison group. As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of the Service Company and NJAW. During the 12 months ended March 31, 2017, the cost of customer accounts services for NJAW customers was \$20.92 compared to the 2016 average of \$48.58 for neighboring electric utilities. The highest comparison group per-customer cost was \$103.52 and the lowest \$12.71.

Concerning question 4, the following conclusions were drawn:

- The services that the Service Company provides are necessary and would be required even if NJAW were a stand-alone water and wastewater utility.
- Furthermore, there is no redundancy or overlap in the services provided by the Service Company to NJAW. For all of the services provided (Exhibit 13), there was only one entity primarily responsible for the service.

## II – Background

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### Overview of American Water Works Service Company

American Water's Service Company exists to provide certain shared services to American Water subsidiaries. It follows a service company model used by many utility holding companies that own multiple regulated utilities. By consolidating executive and professional services into a single service company, utility holding companies are able to realize the following benefits for ratepayers:

- **Purchasing Economies** – Common expenses (e.g., insurance, chemicals, piping) can be procured on a much larger scale, thereby providing greater bargaining power for the combined entity compared to individual utility operating companies. A service company facilitates corporate-wide purchasing programs through its procurement and contract administration functions.
- **Operating Economies of Scale** – A service company is able to deliver services more efficiently because workloads can be balanced across more persons and facilities. For instance, American Water's Service Company is able to maintain one principal data center for the entire corporation. This is much more cost-efficient than each operating utility funding its own data center with large fixed hardware, software and staffing costs.
- **Continuity of Service** – Centralizing service company personnel who perform similar services facilitates job cross-training and sharing of knowledge and expertise. This makes it easier to deal with staff turnover and absences and to sustain high levels of service to operating utilities. An individual operating utility might experience considerable disruption if a key professional left and it were necessary to hire outside to fill the vacancy.
- **Maintenance of Corporate-Wide Standards** – Personnel in American Water's Service Company establish standards for many functions (e.g., engineering designs, operating procedures and maintenance practices). It is easier to ensure these standards are followed by every operating utility because their implementation is overseen by the Service Company.
- **Improved Governance** – American Water's Service Company provides another dimension of management and financial oversight that supplements local operating utility management. The Service Company facilitates standard planning and reporting, which helps ensure that operating utilities meet the requirements of their customers in a cost-effective manner.
- **Retention of Personnel** – A service company organization provides operating utility personnel with another career path beyond what may be available on a local level. These opportunities tend to improve employee retention.

American Water follows the model for other utility service companies in another important regard: Its services are provided to affiliate operating utilities, like NJAW, at cost. American Water's Service Company is not a profit-making entity. It assigns only its actual expenses to the American Water subsidiaries it services.

## II – Background

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The Service Company provides services to American Water operating companies from the following locations:

- Corporate Headquarters – Provides corporate governance and service functions, including executive management, finance, external affairs, human resources and benefits. The corporate headquarters is located in Voorhees, New Jersey.
- Central Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Customer Service Centers – Provides customer call center and billing services from two locations: Alton, Illinois and Pensacola, Florida.
- Customer Relations Centers – Provides customer relations and field resource coordination services from two locations: Belleville, Illinois and Wilkes Barre, Pennsylvania.
- Hershey Technology & Innovation Services Center – American Water's principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and communications systems.
- Haddon Heights Technology & Innovation Services Center - American Water's data center, located in Haddon Heights, New Jersey maintains data servers for back-up and disaster recovery.
- Mount Laurel Office – Provides corporate service functions, including engineering and supply chain services. The office is located in Mount Laurel, New Jersey.
- Woodcrest Office – The Woodcrest Office, located in Cherry Hill, New Jersey provides individual operating companies with accounting, audit, tax, regulatory and security services. The Woodcrest office, American Water's main Technology & Innovation Services (T&I) center for employees, provides software delivery and enhancements for SAP and non-SAP (legacy) systems, provides local on-site support as well as the T&I Service Desk for remote assistance for all employees using personal computers in the performance of their day to day activities, supports mission-critical systems such as SCADA as well as emerging technologies such as geographic information systems and mobility, and provides technical expertise in project governance and release management while ensuring compliance with all governmental regulations.
- Regional Support Services – Operating companies are provided with certain support services that are delivered more effectively on a regional basis because individual operating company workloads are not sufficient to warrant maintaining their own full-time staff for these activities. These services require closer proximity to operating companies and therefore are located closer to the operating companies the employees provide service to instead of one of the corporate locations.

## II – Background

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### **Service Company Accounting**

Service Company maintains an accounting ledger for recording transactions (e.g., labor, expenses, overhead, capital and other assets, liabilities and equity) in a Service Company ledger separate from Affiliates' ledgers. Monthly financial statements are prepared that summarize month-to-date and year-to-date costs, budgets and prior year, with variances and explanations, by category and function. Accounting categories by transaction type are described below.

- **Service Company Labor:** The Service Company utilizes a system that tracks time and attendance. Employees electronically enter hours worked (including vacation, sick, family leave, etc.) and accounting information (e.g., business unit; formula; pay type) and electronically submit the timesheet for approval. Submitted timesheets are electronically routed to authorized approvers. Time sheets require approval (of hours and accounting information such as formulas, etc.) by an authorized timesheet approver in the employee's home business unit.
- **Service Company Expenses:** Expenditures (i.e., standard invoices, purchase orders, electronic disbursements, Miscellaneous Invoices, Recurring Invoices, Recurring Vouchers, and procurement cards) and journal entries require a preparer to enter accounting coding details (e.g., cost center, cost element and work breakdown structure) and a reviewer to approve the information in accordance with the corporate Delegation of Authority Policy. Expenditures are processed electronically and are automatically routed to the employee's supervisor for approval. Costs are posted many times daily, in detail, in the business unit selected. Journal entries are submitted as prepared to the appropriate reviewer and posted as approved.
- **Service Company Assets:** Service Company assets are procured directly by Service Company or through a capital leasing arrangement with Laurel Oak Properties (LOP). Service Company capitalizes these LOP leases as Non-Utility Plant assets in accordance with generally accepted accounting principles. Generally speaking, Service Company assets (including hardware, servers, laptops, desktops, servers, storage racks, furniture, laboratory and test equipment, security cameras, monitors, and leasehold improvements) are acquired through LOP via a capital lease. LOP, on behalf of the Service Company, will acquire the necessary materials and services to build the assets that are needed for the Company to meet its business needs.
- **Service Company Overhead:** Costs for support personnel (e.g., administrative assistants, mailroom clerks), rents, facility expenses, pension, medical insurance, taxes, general office supplies and other similar expenses are recorded in the ledger of the cost center responsible for incurring the charge. Overhead expenditures are posted using the labor and expense processes noted above, and are recorded, in detail, in the ledger of the cost center responsible for the charge using an overhead Work Breakdown Structure (WBS) element.

### **Service Company Billing and Clearing**

Service Company has developed a billing system which charges directly or allocates costs for services provided to Affiliates. Service Company billing is processed monthly and includes all Service Company costs charged to Affiliates using the WBS element selected for each transaction.

- **WBS element:** Every Service Company transaction (vouchers, journal entries, payroll batch, etc.) requires a WBS element within the account coding string. Each WBS element is configured in SAP with the following: Affiliate(s) to be charged, percent of charge to be billed to each Affiliate (total must equal 100%), receiving object (e.g., Affiliate's cost center

## II – Background

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xx0000) for O&M costs or an Affiliate's WBS element for Capex Costs. WBS elements are configured in SAP with an end date (month/year) to prevent transactions from using an expired WBS during data input.

- **Affiliate Billing Process:** Service Company billing is a two-step process that first calculates allocations of transactions for all non-overhead WBS elements. The second step calculates overhead transaction allocations using the ratio of direct labor (Cost Element 5012000) allocations to Affiliates from the first step above multiplied by the pool of overhead expenses by physical location.
- **Bill Clearing Process:** Service Company billings are cleared through American Water Capital Corporation, Inc., (an Affiliate) monthly via an intercompany journal entry to GL Account 23120000 (Notes Payable – Associated Companies) posted on the last day of the month. Payments are estimated for each Affiliate using the prior month actual billing (current month estimate) with adjustment for prior month actual to estimate (previous month funding) true-up.



### III – Service Company Cost Comparison Approach

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#### Service Company Test Period Charges

During the 12 months ended March 31, 2017, the Service Company billed NJAW a total of approximately \$51 million, as shown in the table below. These charges were subjected to a market to cost comparison.

	12 Months Ended March 31, 2017
Management Fees - O&M	\$ 41,065,179
Management Fees - Capital	\$ 9,955,796
Total Service Company Charges	\$ 51,020,974

For purposes of comparing these charges to certain outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total 12 months ended March 31, 2017 Service Company dollar and hour charges break down between management/professional services and customer account services as follows:

	12 Months Ended March 31, 2017	
	Amount	Hours
Management and Professional Services	\$ 43,408,998	218,973
Customer Account Services	\$ 7,611,976	160,744
Total Service Company Charges	\$ 51,020,974	379,717

#### Service Company Cost Comparison Approach

This study's first question—whether the Service Company 12 months ended March 31, 2017 charges were reasonable—was determined by comparing NJAW's A&G-related Service Company charges per regulated retail customer to the same charges for utility companies that must file the Federal Energy Regulatory Commission (FERC) Form 60 – Annual Report of Service Companies.

The second question—whether the Service Company charges during the 12 months ended March 31, 2017 were at the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to NJAW during the 12 months ended March 31, 2017. Outside providers' billing rates came from surveys or other information from professionals who could perform the services now provided by the Service Company.

### III – Service Company Cost Comparison Approach

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The third question—whether Service Company’s 12 months ended March 31, 2017 customer account services charges, including National Call Center costs, were comparable to other utilities—was addressed by comparing NJAW’s customer accounts services expenses to those of neighboring investor-owned electric utilities. This utility comparison group was selected because the cost of outside providers of customer accounts services is proprietary and not publicly available. Comparison to electric utilities is appropriate because all utilities, regardless of service type, must perform customer account services activities, including updating customer records for meter reads, printing and mailing bills, and the collection and processing of customer payments. Electric utility costs are available from the FERC Form 1; thus, there is appropriate data transparency. The selection of electric utilities from New Jersey and neighboring states provides a sufficiently sized comparison group.

The fourth question—the necessity of Service Company services—was investigated by defining the services provided to NJAW and determining if these services would be required if NJAW were a stand-alone utility.

## IV – Question 1 – Reasonableness of Service Company Charges

### Methodology

Utility service companies deliver a variety of services. Some support their regulated utility affiliate's operations-related functions (e.g., transmission, distribution). All utility service companies, however, provide A&G services to their affiliates. This is true because there are considerable economies of scale derived from centralizing the management of corporate A&G services such as technology and innovation, finance and human resources. Because A&G-related services are consistently delivered by utility service companies, this study uses A&G charges per customer as the metric by which to test the reasonableness of affiliate charges.

### NJAW's Service Company A&G Cost per Customer

During the 12 months ended March 31, 2017 NJAW was charged \$58 per customer by the Service Company for A&G-related services. The calculation of this amount, shown in the table below, starts with total Service Company charges and adjusts for capital and non-A&G function (e.g., engineering, operations and water quality) charges. These adjustments are necessary to develop a per-customer cost that can be compared to the cost of the utility service company comparison group.

	12 Months Ended March 31, 2017
Total Service Company Charges	\$ 51,020,974
Less: Capital Charges	\$ (9,955,796)
Less: Non-A&G Charges	
Engineering	\$ (738,135)
Operations	\$ (784,142)
Water Quality	\$ (736,983)
Net A&G Service Company Charges	\$ 38,805,918
NJAW Customer Count	670,704
NJAW A&G SC Charges per Customer	\$ 58

### Comparison Group Cost Per Customer

Every centralized service company in a holding company system subject to regulation by the FERC must file a Form 60 in accordance with the Public Utility Holding Company Act of 2005, Section 1270, Section 390 of the Federal Power Act, and 18 Code of Federal Regulations paragraph 366.23. This report is designed to collect financial information from service companies that are subject to regulation by the FERC.

Charges to utility affiliates for the comparison group service companies were obtained from Schedule XVI – Analysis of Charges for Service Associate and Non-Associate Companies (p. 303 to 306) of each entity's FERC Form 60. Information from Form 60 schedule Account 457 – Analysis of Billing – Associate Companies was also used to isolate and eliminate charges to non-regulated affiliates from the cost pool used to calculate A&G expenses per regulated service customer.

For 2016, a Form 60 was filed by service companies associated with 24 utility holding companies. These service companies support utilities that provide regulated electric and, in some cases, gas service to retail customers.

## IV – Question 1 – Reasonableness of Service Company Charges

FERC Form 60 shows service company charges to affiliates by FERC account. The table below shows a list of FERC A&G accounts and designates which correspond to services the Service Company provides to NJAW. Amounts in the designated FERC accounts are included in the calculation of service company A&G expenses per regulated customer.

FERC Account	Included In Cost Calculation
901 - Supervision	X
902 - Meter reading expenses	
903 - Customer records and collection expenses	X
904 - Uncollectible accounts	
905 - Miscellaneous customer accounts expenses	X
907 - Supervision	
908 - Customer assistance expenses	
909 - Informational And Instructional Advertising Expenses	
910 - Miscellaneous Customer Service And Informational Exp	X
911 - Supervision	
912 - Demonstrating and Selling Expenses	
913 - Advertising Expenses	
916 - Miscellaneous Sales Expenses	
920 - Administrative and General Salaries	X
921 - Office Supplies and Expenses	X
923 - Outside Services Employed	X
924 - Property Insurance	X
925 - Injuries and Damages	
926 - Employee Pensions and Benefits	X
928 - Regulatory Commission Expenses	
930.1 - General Advertising Expenses	
930.2 - Miscellaneous General Expenses	X
931 - Rents	X
935 - Maintenance of Structures and Equipment	X

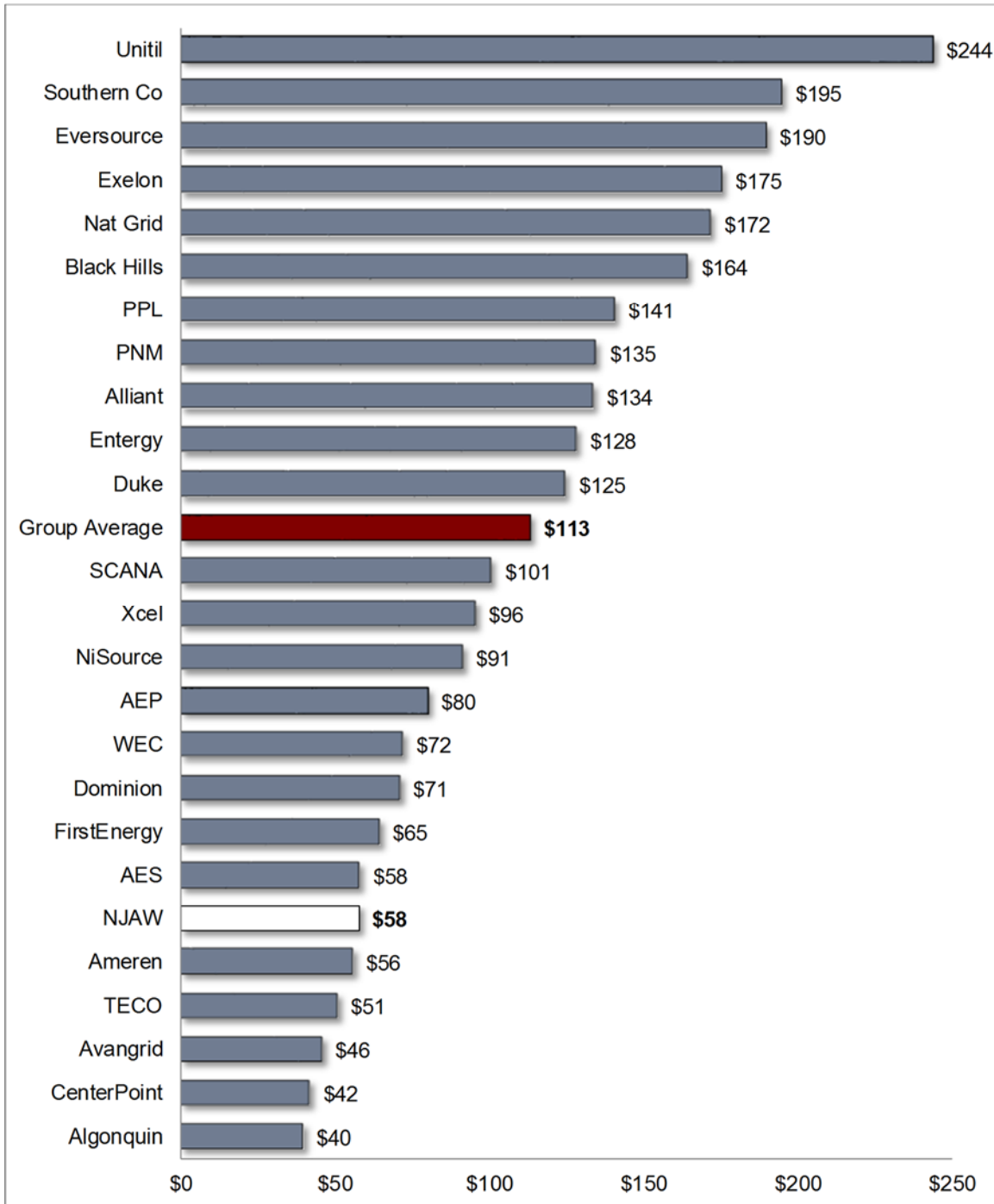
The A&G expenses per regulated utility customer for the 24 utility companies that filed a Form 60 for 2016 are calculated in Exhibit 1 (page 11).

Exhibit 2 (page 12) shows NJAW's 2016 Service Company cost per customer of \$58 to be lower than the average of \$113 per customer for the comparison group service companies. Nineteen of the 24 comparison group service companies had higher per customer A&G costs than NJAW's charges from the Service Company. Based on this result, it is possible to conclude that the Service Company's 12 months ended March 31, 2017 charges to NJAW were reasonable.

New Jersey American Water Company  
Calculation of 2016 Service Company A&G Expenses Per Customer

Utility Company	2016 Regulated Retail Service Company A&G Expenses	Regulated Retail Customers	Cost per Customer
AEP	\$433,313,931	5,400,000	\$ 80
AES	\$58,663,877	1,009,000	\$ 58
Algonquin	\$23,885,200	600,500	\$ 40
Alliant	\$182,987,437	1,370,076	\$ 134
Ameren	\$184,181,111	3,300,000	\$ 56
Avangrid	\$145,553,643	3,172,000	\$ 46
Black Hills	\$203,616,462	1,239,260	\$ 164
CenterPoint	\$245,306,300	5,842,684	\$ 42
Dominion	\$277,327,834	3,900,000	\$ 71
Duke	\$1,136,152,264	9,110,000	\$ 125
Entergy	\$393,237,567	3,067,000	\$ 128
Eversource	\$699,338,919	3,686,770	\$ 190
Exelon	\$1,770,709,227	10,100,000	\$ 175
FirstEnergy	\$390,769,523	6,058,000	\$ 65
Nat Grid	\$1,184,685,168	6,900,000	\$ 172
NiSource	\$356,829,243	3,900,000	\$ 91
PNM	\$102,422,613	761,000	\$ 135
PPL	\$379,491,254	2,700,000	\$ 141
SCANA	\$208,138,095	2,066,076	\$ 101
Southern Co	\$895,860,225	4,600,000	\$ 195
TECO	\$81,660,360	1,605,000	\$ 51
Unitil	\$44,905,616	184,200	\$ 244
WEC	\$315,718,739	4,374,000	\$ 72
Xcel	\$535,156,753	5,600,000	\$ 96
<b>Total</b>	<b>\$10,249,911,360</b>	<b>90,545,566</b>	<b>\$ 113</b>

New Jersey American Water Company  
Comparison of Service Company A&G Expenses Per Customer



## V – Question 2 – Provision of Services at the Lower of Cost or Market

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### **Methodology**

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services, it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial and rates and revenues services
- T&I Professionals – information technology services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar scientific educational backgrounds as Service Company engineering personnel. Thus, it is appropriate to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rates were calculated for each of the five outside service provider categories, based on the dollars and hours charged to NJAW during the 12 months ended March 31, 2017. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged NJAW during the 12 months ended March 31, 2017, its hourly rates are actually overstated because some Service Company personnel charge a maximum of 8 hours per day even when they work more. Outside service providers generally bill for every hour worked. If all overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the lower-of-cost-or-market comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### **Service Company Hourly Rates**

Exhibit 3 (page 15) details the assignment of 2016 management and professional Service Company charges by outsider provider category. Exhibit 4 (page 16) shows the same assignment for Service Company management and professional hours charged to NJAW during the 12 months ended March 31, 2017.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 12 months ended March 31, 2017 test period non-labor Service Company charges:

## V – Question 2 – Provision of Services at the Lower of Cost or Market

- **Contract Services** – Twelve months ended March 31, 2017 Service Company charges to NJAW include expenses associated with the use of outside professional firms to perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.
- **Travel Expenses** – In general, client-related travel expenses incurred by outside service providers are not recovered through their hourly billing rates. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- **T&I Infrastructure Expenses** – Included in the 12 months ended March 31, 2017 Service Company charges to NJAW are leases, maintenance fees and depreciation related to American Water's enterprise computing and network infrastructure and corporate business applications. An outside provider that would take over operation of this infrastructure would recover these expenses over and above the cost of personnel necessary to operate the data center.
- **Non-Service Related Expenses** – These are corporate expenses such current and deferred income tax expense, line of credit fees and board expenses. These are not related to the provision of services by Service Company personnel and have been excluded.

Exhibit 5 (page 17) shows how contract services, travel expenses, T&I infrastructure and non-service-related Service Company charges are assigned to the four outside provider categories.

Based on the assignment of expenses and hours shown in Exhibits 2 and 3 and the excludable items shown in Exhibit 4, the Service Company's equivalent costs per hour for the 12 months ended March 31, 2017 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	T&I Professional	Professional Engineer	Total
Total management, professional & technical services charges	\$ 2,548,074	\$ 13,888,640	\$ 6,016,154	\$ 17,071,177	\$ 3,884,953	\$ 43,408,998
Less: Exclusions						
Contract services	\$ 328,025	\$ 853,102	\$ 614,712	\$ 5,850,679	\$ 74,789	\$ 7,721,308
Travel expenses	\$ 22,048	\$ 55,119	\$ 30,507	\$ 69,620	\$ 26,380	\$ 203,674
IT infrastructure expenses	\$ 1,097	\$ 3,522,128	\$ 37,016	\$ 1,847,848	\$ 39,713	\$ 5,447,802
Non-service related expenses	\$ 205,054	\$ 1,353,257	\$ 89,269	\$ 274,909	\$ 248,076	\$ 2,170,564
Total Exclusions	\$ 556,223	\$ 5,783,606	\$ 771,505	\$ 8,043,056	\$ 388,959	\$ 15,543,349
Net Service-Related Charges (A)	\$ 1,991,850	\$ 8,105,034	\$ 5,244,649	\$ 9,028,121	\$ 3,495,994	\$ 27,865,649
Total Hours (B)	7,304	37,759	56,746	77,852	39,312	218,973
<b>Average Hourly Rate (A / B)</b>	<b>\$ 273</b>	<b>\$ 215</b>	<b>\$ 92</b>	<b>\$ 116</b>	<b>\$ 89</b>	



New Jersey American Water Company  
Analysis of 12 Months Ended March 31, 2017 Service Company Charges by Location and Function

		12 Months Ended March 31, 2017 Service Company Charges					
Location	Function	Attorney	Management Consultant	Certified Public Accountant	T&I Professional	Professional Engineer	Total
Belleville Lab	Water Quality					\$ 750,847	\$ 750,847
Call Center	Human Resources		\$ 75,032				\$ 75,032
Corporate	Accounting			\$ 2,024,704			\$ 2,024,704
	Administration		\$ 7,116,831				\$ 7,116,831
	Audit			\$ 373,450			\$ 373,450
	Business Development		\$ 587,469				\$ 587,469
	Communications		\$ 652,217				\$ 652,217
	Engineering					\$ 3,134,085	\$ 3,134,085
	External Affairs		\$ 401,582				\$ 401,582
	Finance			\$ 2,029,384			\$ 2,029,384
	Human Resources		\$ 2,587,849				\$ 2,587,849
	Information Technology				\$ 622,525		\$ 622,525
	Legal		\$ 1,473,803				\$ 1,473,803
	Operations			\$ 847,911			\$ 847,911
	Procurement				\$ 792,066		\$ 792,066
	Rates & Regulatory			\$ 141,322			\$ 141,322
Risk Management			\$ 243,523			\$ 243,523	
Division Offices	Administration		\$ 1,043,076				\$ 1,043,076
	Business Development		\$ 40,560				\$ 40,560
	Engineering					\$ 20	\$ 20
	External Affairs		\$ 133,821				\$ 133,821
	Finance			\$ 418,882			\$ 418,882
	Human Resources		\$ 17,446				\$ 17,446
	Legal		\$ 1,074,271				\$ 1,074,271
	Rates & Revenue			\$ 377,667			\$ 377,667
Info Technology	Information Technology				\$ 16,448,653	\$ 16,448,653	
<b>Total Dollars Charged</b>		<b>\$ 2,548,074</b>	<b>\$ 13,888,640</b>	<b>\$ 6,016,154</b>	<b>\$ 17,071,177</b>	<b>\$ 3,884,953</b>	<b>\$ 43,408,998</b>

New Jersey American Water Company  
Analysis of 12 Months Ended March 31, 2017 Service Company Hours by Location and Function

		12 Months Ended March 31, 2017 Service Company Hours					
Location	Function	Attorney	Management Consultant	Certified Public Accountant	T&I Professional	Professional Engineer	Total
Belleville Lab	Water Quality					6,544	6,544
Call Center	Human Resources		993				993
Corporate	Accounting			24,099			24,099
	Administration		3,752				3,752
	Audit			2,226			2,226
	Business Development		1,987				1,987
	Communications		4,735				4,735
	Engineering					32,769	32,769
	External Affairs		474				474
	Finance			17,053			17,053
	Human Resources			18,277			18,277
	Information Technology					4,719	4,719
	Legal		3,558				3,558
	Operations			1,306			1,306
	Procurement				8,360		8,360
	Rates & Regulatory			629			629
	Risk Management			2,488			2,488
Division Offices	Administration		1,728				1,728
	Business Development		221				221
	Engineering						-
	External Affairs		1,054				1,054
	Finance			3,236			3,236
	Human Resources			115			115
	Legal		3,745				3,745
	Rates & Revenue				1,771		1,771
Info Technology	Information Technology				73,133		73,133
<b>Total Hours Charged</b>		<b>7,304</b>	<b>37,759</b>	<b>56,746</b>	<b>77,852</b>	<b>39,312</b>	<b>218,973</b>

New Jersey American Water Company  
Analysis of 12 Months Ended March 31, 2017 Service Company Charges Excludable from the Hourly Rate Calculation

Charges By Function	Exclusions From Hourly Rate Calculation				
	Contract Services	Travel Expenses	T&I Infrastructure	Non-Services-Related Items	Total
Accounting	\$ 398,536	\$ 4,688	\$ 27,702	\$ 28,543	\$ 459,469
Administration	\$ 308,687	\$ 22,473	\$ 3,515,004	\$ 1,301,040	\$ 5,147,204
Audit	\$ 152,299	\$ 492	\$ 6,990	\$ -	\$ 159,781
Business Development	\$ 14,152	\$ 5,096	\$ 1,212	\$ 18,976	\$ 39,435
Communications	\$ 95,365	\$ 1,347	\$ 3,181	\$ 3,813	\$ 103,706
Engineering	\$ 89,540	\$ 21,721	\$ 14,990	\$ 40,797	\$ 167,048
External Affairs	\$ 33,869	\$ 4,467	\$ 135	\$ 1,520	\$ 39,991
Finance	\$ 67,804	\$ 17,210	\$ 2,325	\$ 48,877	\$ 136,215
Human Resources	\$ 399,383	\$ 18,879	\$ 1,072	\$ 24,316	\$ 443,650
Information Technology	\$ 5,850,679	\$ 69,620	\$ 1,847,848	\$ 274,909	\$ 8,043,056
Legal	\$ 328,025	\$ 22,048	\$ 1,097	\$ 205,054	\$ 556,223
Operations	\$ 63,770	\$ 4,131	\$ 17,888	\$ 20,782	\$ 106,572
Procurement	\$ (3,857)	\$ 4,645	\$ -	\$ 11,849	\$ 12,637
Rates & Regulatory	\$ (70)	\$ 3,472	\$ -	\$ -	\$ 3,403
	\$ 18,024	\$ 2,212	\$ 1,259	\$ 3,266	\$ 24,761
Risk Management	\$ (16,378)	\$ 646	\$ 265	\$ 325	\$ (15,142)
Water Quality	\$ (78,520)	\$ 528	\$ 6,835	\$ 186,497	\$ 115,340
<b>Total</b>	<b>\$ 7,721,308</b>	<b>\$ 203,674</b>	<b>\$ 5,447,802</b>	<b>\$ 2,170,564</b>	<b>\$ 15,543,349</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Management Consultant
Professional Engineer
Management Consultant
Certified Public Accountant
Management Consultant
IT Professional
Attorney
Professional Engineer
Certified Public Accountant
Certified Public Accountant
Management Consultant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation				
	Contract Services	Travel Expenses	T&I Infrastructure	Non-Services-Related Items	Total
Attorney	\$ 328,025	\$ 22,048	\$ 1,097	\$ 205,054	\$ 556,223
Management Consultant	\$ 853,102	\$ 55,119	\$ 3,522,128	\$ 1,353,257	\$ 5,783,606
Certified Public Accountant	\$ 614,712	\$ 30,507	\$ 37,016	\$ 89,269	\$ 771,505
IT Professional	\$ 5,850,679	\$ 69,620	\$ 1,847,848	\$ 274,909	\$ 8,043,056
Professional Engineer	\$ 74,789	\$ 26,380	\$ 39,713	\$ 248,076	\$ 388,959
<b>Total</b>	<b>\$ 7,721,308</b>	<b>\$ 203,674</b>	<b>\$ 5,447,802</b>	<b>\$ 2,170,564</b>	<b>\$ 15,543,349</b>

### Outside Service Provider Hourly Rates

The next step in the lower-of-cost-or-market comparison was to obtain the average billing rates for outside service providers. The source of this information and the determination of the average rates are described in the paragraphs that follow.

It should be noted that professionals working for three of the five outside provider categories may be licensed to practice by state regulatory bodies. However, not every professional working for these firms is licensed. For instance, among US certified public accounting firms, only more experienced staff are predominantly CPAs (see table below). Some Service Company employees also have professional licenses. Thus, it is valid to compare the Service Company's hourly rates to those of the outside professional service providers included in this study.

Position	US Average
Partners/Owners	98%
Directors (11+ years experience)	87%
Managers (6-10 years experience)	79%
Sr Associates (4-5 years experience)	50%
Associates (1-3 years experience)	22%
New Professionals	10%

Source: AICPA's National PCPS/TSCPA Management of an Accounting Practice Survey (2010)

### Attorneys

The New Jersey State Bar does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for New Jersey attorneys. Therefore, an estimate of New Jersey attorney rates was developed from a 2016 billing rate survey from National Law Journal. As shown in Exhibit 6 (pages 20-24), data from this survey has been adjusted for cost-of-living differences between each law firm's location and Trenton, New Jersey. The National Law Review Billing survey hourly rates data is for 2016.

### Management Consultants

The cost per hour for management consultants was developed from a 2016 survey performed by the Association of Management Consulting Firms—an industry trade organization. The survey includes rates that were in effect during 2015 for firms throughout the United States (this is the latest data available). Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, in this case the U.S. national average is appropriate for comparison.

The first step in the calculation, presented in Exhibit 7 (page 25), was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. The calculated average rate was escalated to September 30, 2016—the midpoint of 12 months ended March 31, 2017.

## V – Question 2 – Provision of Services at the Lower of Cost or Market

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### **Certified Public Accountants**

The average hourly rate for New Jersey CPAs was developed from a 2016 survey performed by the American Institute of Certified Public Accountants (AICPA). The New Jersey version of this survey was used to develop hourly rates for member firms in New Jersey.

As shown in Exhibit 8 (page 26), a weighted average hourly rate was developed based on a set of accountant positions and a percent of time that is typically applied to an accounting assignment. This survey includes rate information in effect during 2015. The calculated average rate was escalated to September 30, 2016—the midpoint of 12 months ended March 31, 2017.

### **Technology and Innovation Professionals**

The average hourly rate for information technology consultants and contractors was developed from T&I industry hourly billing rate data gathered by Baryenbruch & Company, LLC. As shown in Exhibit 9 (page 27), that data was compiled and a weighted average was calculated based on a percent of time that is typically applied to an T&I consulting assignment based on Baryenbruch & Company's experience.

### **Professional Engineers**

The Company provided hourly rate information for outside engineering firms that provided NJAW with their rate schedules. As presented in Exhibit 10 (page 28), an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

New Jersey American Water Company  
Estimated Billing Rates for New Jersey Attorneys

2016 Hourly Billing Rates

Firm Name	Location	Weighted Average Rate Calculation					Cost of Living (COL) Adjustment (Note B)			Adjusted Rate
		2016 Avg Billing Rates		0.25	0.75	(A)	COL Indices		(B)	
		Partner	Associate	Partner	Associate	Weighted Average	Law Firm Location	NJAW - Trenton, NJ	COL Adjustment	
Ackerman Fox	East Meadow, NY	\$ 475	\$ 350	\$ 119	\$ 263	\$ 381	129.2	122.2	94.6%	\$ 361
Adam Law Group	Jacksonville, FL	\$ 350	\$ 350	\$ 88	\$ 263	\$ 350	95.5	122.2	127.9%	\$ 448
Akerman	Miami, FL	\$ 510	\$ 285	\$ 128	\$ 214	\$ 341	107.2	122.2	114.0%	\$ 389
Akin Gump Strauss Hauer & Feld	Washington , DC	\$ 1,175	\$ 523	\$ 294	\$ 392	\$ 686	141.6	122.2	86.3%	\$ 592
Allen Barnes & Jones	Phoenix, AZ	\$ 345	\$ 285	\$ 86	\$ 214	\$ 300	97.3	122.2	125.6%	\$ 377
Amigone, Sanchez & Mattrey	Buffalo, NY	\$ 275	\$ 175	\$ 69	\$ 131	\$ 200	96.2	122.2	127.1%	\$ 254
Andante Law Group	Scottsdale, AZ	\$ 565	\$ 375	\$ 141	\$ 281	\$ 423	113.9	122.2	107.3%	\$ 453
Andreozzi Bluestein Weber Brown	Clarence, NY	\$ 400	\$ 230	\$ 100	\$ 173	\$ 273	96.2	122.2	127.1%	\$ 346
Andrews Kurth	Houston, TX	\$ 813	\$ 360	\$ 203	\$ 270	\$ 473	99.0	122.2	123.5%	\$ 585
Arent Fox	Washington, DC	\$ 582	\$ 295	\$ 146	\$ 221	\$ 367	141.6	122.2	86.3%	\$ 317
Arnstein & Lehr	Chicago, IL	\$ 493	\$ 250	\$ 123	\$ 188	\$ 311	117.4	122.2	104.1%	\$ 323
Ashby & Geddes	Wilmington, DE	\$ 495	\$ 353	\$ 124	\$ 265	\$ 389	108.4	122.2	112.8%	\$ 438
Ayres, Shelton, Williams	Shreveport, LA	\$ 325	\$ 275	\$ 81	\$ 206	\$ 288	92.7	122.2	131.8%	\$ 379
Bailey & Busey	Yakima, WA	\$ 250	\$ 230	\$ 63	\$ 173	\$ 235	89.9	122.2	136.0%	\$ 320
Baker & Associates	Houston, TX	\$ 450	\$ 325	\$ 113	\$ 244	\$ 356	99.0	122.2	123.5%	\$ 440
Baker Botts	Houston, TX	\$ 788	\$ 550	\$ 197	\$ 413	\$ 610	99.0	122.2	123.5%	\$ 753
Baker, Donelson, Bearman, Caldwell & Berkow	Nashville, TN	\$ 395	\$ 320	\$ 99	\$ 240	\$ 339	86.3	122.2	141.6%	\$ 480
Baldi Berg	Chicago, IL	\$ 388	\$ 275	\$ 97	\$ 206	\$ 303	117.4	122.2	104.1%	\$ 316
Barron and Newburger	Austin, TX	\$ 450	\$ 450	\$ 113	\$ 338	\$ 450	92.5	122.2	132.2%	\$ 595
Bayard	Wilmington, DE	\$ 692	\$ 477	\$ 173	\$ 358	\$ 531	108.4	122.2	112.8%	\$ 599
Behar, Gutt & Glazer	Fort Lauderdale, FL	\$ 400	\$ 335	\$ 100	\$ 251	\$ 351	109.5	122.2	111.6%	\$ 392
Benjamin & Brand	Chicago, IL	\$ 425	\$ 395	\$ 106	\$ 296	\$ 403	117.4	122.2	104.1%	\$ 419
Bernstein-Burkley	Pittsburgh, PA	\$ 385	\$ 249	\$ 96	\$ 187	\$ 283	121.2	122.2	100.9%	\$ 285
Bielli & Klauder	Philadelphia, PA	\$ 350	\$ 285	\$ 88	\$ 214	\$ 301	121.2	122.2	100.9%	\$ 304
Binder & Malter	Santa Clara, CA	\$ 440	\$ 300	\$ 110	\$ 225	\$ 335	148.8	122.2	82.2%	\$ 275
Bingham Greenebaum Doll	Indianapolis, IN	\$ 313	\$ 215	\$ 78	\$ 161	\$ 240	91.1	122.2	134.2%	\$ 321
Blanchard Law	Largo, FL	\$ 250	\$ 225	\$ 63	\$ 169	\$ 231	96.8	122.2	126.3%	\$ 292
Bolognese & Associates	Philadelphia, DE	\$ 675	\$ 675	\$ 169	\$ 506	\$ 675	108.4	122.2	112.8%	\$ 761
Bond, Schoeneck & King	Syracuse, NY	\$ 383	\$ 196	\$ 96	\$ 147	\$ 243	99.9	122.2	122.4%	\$ 297
Bracewell	Houston, TX	\$ 779	\$ 523	\$ 195	\$ 392	\$ 587	99.0	122.2	123.5%	\$ 725
Bradley Arant Boult Cummings	Birmingham, AL	\$ 540	\$ 330	\$ 135	\$ 248	\$ 383	85.9	122.2	142.3%	\$ 544
Broege, Neumann, Fischer & Shaver	Manasquan, NJ	\$ 438	\$ 438	\$ 110	\$ 329	\$ 438	122.2	122.2	100.0%	\$ 438
Bryan Cave	St. Louis, MO	\$ 543	\$ 350	\$ 136	\$ 263	\$ 398	94.4	122.2	129.4%	\$ 516
Burr & Forman	Birmingham, AL	\$ 545	\$ 310	\$ 136	\$ 233	\$ 369	85.9	122.2	142.3%	\$ 525
Butler Snow	Memphis, TN	\$ 313	\$ 195	\$ 78	\$ 146	\$ 225	84.9	122.2	144.0%	\$ 323
Canterbury Law Group	Scottsdale, AZ	\$ 400	\$ 140	\$ 100	\$ 105	\$ 205	113.9	122.2	107.3%	\$ 220
CGA Law Firm	York, PA	\$ 288	\$ 195	\$ 72	\$ 146	\$ 218	98.1	122.2	124.6%	\$ 272
Chambliss, Bahner & Stophel	Chattanooga, TN	\$ 300	\$ 240	\$ 75	\$ 180	\$ 255	93.1	122.2	131.3%	\$ 335
Ciardi, Ciardi & Astin	Philadelphia, PA	\$ 540	\$ 300	\$ 135	\$ 225	\$ 360	121.2	122.2	100.9%	\$ 363
Coats Rose Yale Ryman & Lee	Houston, TX	\$ 550	\$ 325	\$ 138	\$ 244	\$ 381	99.0	122.2	123.5%	\$ 471
Cohen & Grigsby	Pittsburgh, PA	\$ 425	\$ 255	\$ 106	\$ 191	\$ 298	92.2	122.2	132.6%	\$ 394
Cole, Schotz, Meisel, Forman & Leonard	Baltimore, MD	\$ 510	\$ 320	\$ 128	\$ 240	\$ 368	111.3	122.2	109.9%	\$ 404

New Jersey American Water Company  
Estimated Billing Rates for New Jersey Attorneys

2016 Hourly Billing Rates		Weighted Average Rate Calculation					Cost of Living (COL) Adjustment (Note B)			(A x B) Adjusted Rate
		2016 Avg Billing Rates		0.25	0.75	(A) Weighted Average	COL Indices		(B) COL Adjustment	
		Partner	Associate				Law Firm Location	NJAW - Trenton, NJ		
Cooley	Palo Alto, CA	\$ 995	\$ 563	\$ 249	\$ 422	\$ 671	159.9	122.2	76.5%	\$ 513
Cooper & Scully	Houston, TX	\$ 425	\$ 300	\$ 106	\$ 225	\$ 331	99.0	122.2	123.5%	\$ 409
Crane Heyman Simon Welch	Chicago, IL	\$ 458	\$ 430	\$ 115	\$ 323	\$ 437	117.4	122.2	104.1%	\$ 455
Creim Macias Koenig & Frey	Los Angeles, CA	\$ 595	\$ 350	\$ 149	\$ 263	\$ 411	131.0	122.2	93.3%	\$ 384
Crowley, Liberatore, Ryan & Brogan	Norfolk, VA	\$ 350	\$ 350	\$ 88	\$ 263	\$ 350	99.4	122.2	122.9%	\$ 430
Curtis Castillo	Dallas, TX	\$ 420	\$ 350	\$ 105	\$ 263	\$ 368	95.7	122.2	127.7%	\$ 469
Dal Lago Law	Naples, FL	\$ 360	\$ 200	\$ 90	\$ 150	\$ 240	96.3	122.2	126.9%	\$ 305
David W Steen	Tampa, FL	\$ 450	\$ 450	\$ 113	\$ 338	\$ 450	92.9	122.2	131.6%	\$ 592
Davis Miles McGuire Gardner	Tempe, AZ	\$ 380	\$ 238	\$ 95	\$ 179	\$ 274	97.3	122.2	125.6%	\$ 344
Day Pitney	Parsippany, NY	\$ 585	\$ 375	\$ 146	\$ 281	\$ 428	133.0	122.2	91.9%	\$ 393
DeCaro & Howell	Upper Marlboro, MD	\$ 425	\$ 380	\$ 106	\$ 285	\$ 391	111.8	122.2	109.4%	\$ 428
Dechert	New York, NY	\$ 930	\$ 570	\$ 233	\$ 428	\$ 660	221.3	122.2	55.2%	\$ 365
Dentons	Atlanta, GA	\$ 690	\$ 538	\$ 173	\$ 404	\$ 576	93.5	122.2	130.7%	\$ 753
Derbes Law Firm	Metairie, LA	\$ 325	\$ 165	\$ 81	\$ 124	\$ 205	98.2	122.2	124.5%	\$ 255
Desmond, Nolan, Livaich & Cunningham	Sacramento, CA	\$ 325	\$ 225	\$ 81	\$ 169	\$ 250	109.8	122.2	111.3%	\$ 278
Dickinson Wright	Troy, MI	\$ 600	\$ 245	\$ 150	\$ 184	\$ 334	96.1	122.2	127.1%	\$ 424
DLA Piper	New York, NY	\$ 958	\$ 633	\$ 240	\$ 475	\$ 714	221.3	122.2	55.2%	\$ 395
Dragich Law	Grosse Pointe Woods, MI	\$ 350	\$ 250	\$ 88	\$ 188	\$ 275	96.1	122.2	127.1%	\$ 350
DuBosar Sheres	Boca Raton, FL	\$ 425	\$ 290	\$ 106	\$ 218	\$ 324	109.5	122.2	111.6%	\$ 361
Dykema Cox Smith	San Antonio, TX	\$ 565	\$ 290	\$ 141	\$ 218	\$ 359	87.6	122.2	139.5%	\$ 501
Ehrhard & Associates	Worcester, MA	\$ 300	\$ 275	\$ 75	\$ 206	\$ 281	103.6	122.2	117.9%	\$ 332
FactorLaw	Chicago, IL	\$ 350	\$ 275	\$ 88	\$ 206	\$ 294	117.4	122.2	104.1%	\$ 306
Faucher & Associates	Westlake Village, CA	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	131.0	122.2	93.3%	\$ 373
Felderstein Fitzgerald Willoughby and Scuzzi	Sacramento, CA	\$ 495	\$ 350	\$ 124	\$ 263	\$ 386	109.8	122.2	111.3%	\$ 430
Flaster Greenberg	Cherry Hill, NJ	\$ 490	\$ 490	\$ 123	\$ 368	\$ 490	121.2	122.2	100.9%	\$ 494
Foley & Lardner	Milwaukee, WI	\$ 680	\$ 425	\$ 170	\$ 319	\$ 489	101.7	122.2	120.2%	\$ 588
Foley Hoag	Boston, MA	\$ 702	\$ 508	\$ 176	\$ 381	\$ 557	140.1	122.2	87.3%	\$ 486
Forman Holt Eliades & Youngman	Paramus, NJ	\$ 495	\$ 200	\$ 124	\$ 150	\$ 274	133.0	122.2	91.9%	\$ 252
Fowler White Burnett	Miami, FL	\$ 450	\$ 275	\$ 113	\$ 206	\$ 319	107.2	122.2	114.0%	\$ 363
Fox Rothschild	Philadelphia, PA	\$ 548	\$ 340	\$ 137	\$ 255	\$ 392	121.2	122.2	100.9%	\$ 395
Frank B. Lyon	Austin, TX	\$ 395	\$ 305	\$ 99	\$ 229	\$ 328	92.5	122.2	132.2%	\$ 433
Franklin Hayward	Dallas, TX	\$ 318	\$ 280	\$ 80	\$ 210	\$ 290	95.7	122.2	127.7%	\$ 370
Furr & Cohen	Boca Raton, FL	\$ 550	\$ 388	\$ 138	\$ 291	\$ 429	109.5	122.2	111.6%	\$ 478
Gardere Wynne Sewell	Dallas, TX	\$ 590	\$ 578	\$ 148	\$ 434	\$ 581	95.7	122.2	127.7%	\$ 742
Garrity Traina	Coconut Creek, FL	\$ 250	\$ 200	\$ 63	\$ 150	\$ 213	109.5	122.2	111.6%	\$ 237
Genova Burns Giantomasi Webster	Newark, NJ	\$ 600	\$ 275	\$ 150	\$ 206	\$ 356	128.4	122.2	95.2%	\$ 339
Gerald K. Smith & John C. Smith Law Office	Tucson, AZ	\$ 400	\$ 350	\$ 100	\$ 263	\$ 363	96.4	122.2	126.9%	\$ 460
Goldstein & McClintock	Chicago, IL	\$ 435	\$ 225	\$ 109	\$ 169	\$ 278	117.4	122.2	104.1%	\$ 289
Gray Reed & McGraw	Houston, TX	\$ 600	\$ 300	\$ 150	\$ 225	\$ 375	99.0	122.2	123.5%	\$ 463
Green & Sklarz	New Haven, CT	\$ 443	\$ 350	\$ 111	\$ 263	\$ 373	128.3	122.2	95.3%	\$ 356
Greenberg & Bass	Encino, CA	\$ 450	\$ 363	\$ 113	\$ 272	\$ 385	131.0	122.2	93.3%	\$ 359
Greenberg Traurig	New York, NY	\$ 950	\$ 563	\$ 238	\$ 422	\$ 660	221.3	122.2	55.2%	\$ 364

New Jersey American Water Company  
Estimated Billing Rates for New Jersey Attorneys

2016 Hourly Billing Rates

Firm Name	Location	Weighted Average Rate Calculation					Cost of Living (COL) Adjustment (Note B)			Adjusted Rate
		2016 Avg Billing Rates		0.25		(A)	COL Indices		(B)	
		Partner	Associate	Partner	Associate		Law Firm Location	NJAW - Trenton, NJ		
Greene Infuso	Las Vegas, NV	\$ 388	\$ 225	\$ 97	\$ 169	\$ 266	102.7	122.2	119.1%	\$ 316
Gregory K. Stern	Chicago, IL	\$ 465	\$ 440	\$ 116	\$ 330	\$ 446	117.4	122.2	104.1%	\$ 465
Gruber Hurst Elrod Johansen Hail Shank	Dallas, TX	\$ 490	\$ 295	\$ 123	\$ 221	\$ 344	95.7	122.2	127.7%	\$ 439
Haberbush & Associates	Long Beach, CA	\$ 388	\$ 175	\$ 97	\$ 131	\$ 228	131.0	122.2	93.3%	\$ 213
Hall, Estill, Hardwick, Gable, Golden & Nelson	Tulsa, TX	\$ 410	\$ 225	\$ 103	\$ 169	\$ 271	88.4	122.2	138.3%	\$ 375
Harter Secrest & Emery	Rochester, NY	\$ 468	\$ 245	\$ 117	\$ 184	\$ 301	99.9	122.2	122.4%	\$ 368
Haynes and Boone	Dallas, TX	\$ 750	\$ 325	\$ 188	\$ 244	\$ 431	95.7	122.2	127.7%	\$ 551
Hirschler, Fleischer	Richmond, VA	\$ 440	\$ 265	\$ 110	\$ 199	\$ 309	99.7	122.2	122.6%	\$ 378
Holland & Knight	Washington, DC	\$ 725	\$ 575	\$ 181	\$ 431	\$ 613	141.6	122.2	86.3%	\$ 529
Hughes Watters Askanase	Houston, TX	\$ 420	\$ 310	\$ 105	\$ 233	\$ 338	99.0	122.2	123.5%	\$ 417
Irell & Manella	Los Angeles, CA	\$ 1,135	\$ 870	\$ 284	\$ 653	\$ 936	131.0	122.2	93.3%	\$ 873
J. Bennett White	Tyler, TX	\$ 350	\$ 250	\$ 88	\$ 188	\$ 275	96.4	122.2	126.8%	\$ 349
James & Haugland	El Paso, TX	\$ 300	\$ 225	\$ 75	\$ 169	\$ 244	90.8	122.2	134.5%	\$ 328
Jeffer Mangels Butler and Marmaro	Los Angeles, CA	\$ 695	\$ 360	\$ 174	\$ 270	\$ 444	131.0	122.2	93.3%	\$ 414
Jefferson & Brewer	Indianapolis, IN	\$ 375	\$ 250	\$ 94	\$ 188	\$ 281	91.1	122.2	134.2%	\$ 377
Jeffrey Strange & Associates	Wilmette, IL	\$ 450	\$ 395	\$ 113	\$ 296	\$ 409	117.4	122.2	104.1%	\$ 425
Johnson Pope Bokor Ruppel & Burns	Tampa, FL	\$ 350	\$ 298	\$ 88	\$ 224	\$ 311	92.9	122.2	131.6%	\$ 409
Kasen & Kasen	Cherry Hill, NJ	\$ 425	\$ 350	\$ 106	\$ 263	\$ 369	121.2	122.2	100.9%	\$ 372
Keller & Benvenuti	San Francisco, CA	\$ 800	\$ 400	\$ 200	\$ 300	\$ 500	159.9	122.2	76.5%	\$ 382
King & Spalding	Atlanta, GA	\$ 925	\$ 530	\$ 231	\$ 398	\$ 629	93.5	122.2	130.7%	\$ 822
Klee Tuchin Bogdanoff & Stern	Los Angeles, CA	\$ 650	\$ 493	\$ 163	\$ 370	\$ 532	131.0	122.2	93.3%	\$ 497
Kos & Associates	Fort Wayne, IN	\$ 300	\$ 175	\$ 75	\$ 131	\$ 206	89.8	122.2	136.1%	\$ 281
Krigel & Krigel	Kansas City, MO	\$ 275	\$ 225	\$ 69	\$ 169	\$ 238	98.0	122.2	124.7%	\$ 296
Lakelaw	Chicago, IL	\$ 650	\$ 375	\$ 163	\$ 281	\$ 444	117.4	122.2	104.1%	\$ 462
Lamberth, Cifelli, Stokes, Ellis & Nason	Macon, GA	\$ 450	\$ 300	\$ 113	\$ 225	\$ 338	89.4	122.2	136.7%	\$ 461
Landau Gottfried & Berger	Los Angeles, CA	\$ 565	\$ 418	\$ 141	\$ 314	\$ 455	131.0	122.2	93.3%	\$ 424
Langley & Banack	San Antonio, TX	\$ 350	\$ 350	\$ 88	\$ 263	\$ 350	87.6	122.2	139.5%	\$ 488
Lansing Roy	Jacksonville, FL	\$ 300	\$ 250	\$ 75	\$ 188	\$ 263	95.5	122.2	127.9%	\$ 336
Law Office of Daren M. Schlecter	Los Angeles, CA	\$ 350	\$ 150	\$ 88	\$ 113	\$ 200	131.0	122.2	93.3%	\$ 187
Law Office of Robert M. Aronson	Los Angeles, CA	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	131.0	122.2	93.3%	\$ 373
Law Offices of Langley & Chang	Riverside, CA	\$ 425	\$ 425	\$ 106	\$ 319	\$ 425	112.0	122.2	109.1%	\$ 464
Law Offices of Michael Jay Berger	Beverly Hills, CA	\$ 450	\$ 345	\$ 113	\$ 259	\$ 371	131.0	122.2	93.3%	\$ 346
Law Offices of Raymond H. Aver	Los Angeles, CA	\$ 495	\$ 300	\$ 124	\$ 225	\$ 349	131.0	122.2	93.3%	\$ 325
LeClairRyan	Newark, NJ	\$ 340	\$ 250	\$ 85	\$ 188	\$ 273	128.4	122.2	95.2%	\$ 259
Leslie Cohen Law	Santa Monica, CA	\$ 575	\$ 335	\$ 144	\$ 251	\$ 395	131.0	122.2	93.3%	\$ 368
Levene Neale Bender Yoo & Brill	Los Angeles, CA	\$ 575	\$ 380	\$ 144	\$ 285	\$ 429	131.0	122.2	93.3%	\$ 400
Locke Lord	Dallas, TX	\$ 630	\$ 415	\$ 158	\$ 311	\$ 469	95.7	122.2	127.7%	\$ 599
Malaise Law Firm	San Antonio, TX	\$ 275	\$ 275	\$ 69	\$ 206	\$ 275	87.6	122.2	139.5%	\$ 384
Marshack Hays	Irvine, CA	\$ 550	\$ 360	\$ 138	\$ 270	\$ 408	140.7	122.2	86.9%	\$ 354
McAuliffe & Associates	Newton, MA	\$ 300	\$ 250	\$ 75	\$ 188	\$ 263	140.1	122.2	87.3%	\$ 229
McCallar Law Firm	Savannah, GA	\$ 400	\$ 290	\$ 100	\$ 218	\$ 318	91.9	122.2	133.0%	\$ 422
McDonald Carano Wilson	Las Vegas, NV	\$ 425	\$ 300	\$ 106	\$ 225	\$ 331	102.7	122.2	119.1%	\$ 394



**New Jersey American Water Company  
Estimated Billing Rates for New Jersey Attorneys**

2016 Hourly Billing Rates

Firm Name	Location	Weighted Average Rate Calculation					Cost of Living (COL) Adjustment (Note B)			Adjusted Rate
		2016 Avg Billing Rates		0.25		(A)	COL Indices		(B)	
		Partner	Associate	Partner	Associate		Law Firm Location	NJAW - Trenton, NJ		
McDonald Hopkins	Cleveland, OH	\$ 565	\$ 330	\$ 141	\$ 248	\$ 389	98.2	122.2	124.5%	\$ 484
McDowell Posternock Apell & Detrick	Maple Shade, NJ	\$ 375	\$ 338	\$ 94	\$ 254	\$ 347	121.2	122.2	100.9%	\$ 350
McKool Smith	Dallas, TX	\$ 750	\$ 495	\$ 188	\$ 371	\$ 559	95.7	122.2	127.7%	\$ 713
McNamee, Hosea, Jernigan, Kim, Greenan & L	Greenbelt, MD	\$ 375	\$ 325	\$ 94	\$ 244	\$ 338	127.4	122.2	95.9%	\$ 324
Meland Russin & Budwick	Miami, FL	\$ 500	\$ 250	\$ 125	\$ 188	\$ 313	107.2	122.2	114.0%	\$ 356
Merrill & Stone	Swainsboro, GA	\$ 285	\$ 285	\$ 71	\$ 214	\$ 285	89.4	122.2	136.7%	\$ 390
Mesch Clark & Rothschild	Tucson, AZ	\$ 463	\$ 275	\$ 116	\$ 206	\$ 322	96.4	122.2	126.9%	\$ 408
Mestone & Associates	North Andover, MA	\$ 300	\$ 300	\$ 75	\$ 225	\$ 300	103.6	122.2	117.9%	\$ 354
Middlebrooks Shapiro	Springfield, NJ	\$ 400	\$ 300	\$ 100	\$ 225	\$ 325	133.0	122.2	91.9%	\$ 299
Miles and Stockbridge	Baltimore, MD	\$ 485	\$ 320	\$ 121	\$ 240	\$ 361	111.3	122.2	109.9%	\$ 397
Mirick, O'Connell, DeMallie & Lougee	Westborough, MA	\$ 410	\$ 280	\$ 103	\$ 210	\$ 313	103.6	122.2	117.9%	\$ 369
Moon Wright & Houston	Charlotte, NC	\$ 500	\$ 260	\$ 125	\$ 195	\$ 320	96.1	122.2	127.1%	\$ 407
Moore & Van Allen	Charlotte, NC	\$ 573	\$ 260	\$ 143	\$ 195	\$ 338	96.1	122.2	127.1%	\$ 430
Morris Polich & Purdy	Las Vegas, NV	\$ 575	\$ 350	\$ 144	\$ 263	\$ 406	102.7	122.2	119.1%	\$ 484
Morrison Cohen	New York, NY	\$ 618	\$ 475	\$ 155	\$ 356	\$ 511	221.3	122.2	55.2%	\$ 282
Munsch Hardt Kopf & Harr	Dallas, TX	\$ 588	\$ 323	\$ 147	\$ 242	\$ 389	95.7	122.2	127.7%	\$ 497
Nathan Horowitz	White Plains, NY	\$ 450	\$ 135	\$ 113	\$ 101	\$ 214	129.2	122.2	94.6%	\$ 202
Norton Rose Fulbright	Houston, TX	\$ 825	\$ 355	\$ 206	\$ 266	\$ 473	99.0	122.2	123.5%	\$ 584
Ogier Rothschild & Rosenfeld	Atlanta, GA	\$ 450	\$ 125	\$ 113	\$ 94	\$ 206	93.5	122.2	130.7%	\$ 270
Olshan Frome Wolosky	New York, NY	\$ 700	\$ 290	\$ 175	\$ 218	\$ 393	221.3	122.2	55.2%	\$ 217
Pachulski Stang Ziehl & Jones	Houston, TX	\$ 938	\$ 600	\$ 235	\$ 450	\$ 685	99.0	122.2	123.5%	\$ 846
Parker Schwartz	Phoenix, AZ	\$ 450	\$ 375	\$ 113	\$ 281	\$ 394	97.3	122.2	125.6%	\$ 495
Paul, Weiss, Rifkind, Wharton & Garrison	New York, NY	\$ 1,240	\$ 713	\$ 310	\$ 535	\$ 845	221.3	122.2	55.2%	\$ 467
Pendergraft & Simon	Houston, TX	\$ 500	\$ 450	\$ 125	\$ 338	\$ 463	99.0	122.2	123.5%	\$ 571
Platzer Swergold Karlin Levine Goldberg & Jas	New York, NY	\$ 590	\$ 455	\$ 148	\$ 341	\$ 489	221.3	122.2	55.2%	\$ 270
Porzio, Bromberg & Newman	Morristown, NJ	\$ 675	\$ 410	\$ 169	\$ 308	\$ 476	133.0	122.2	91.9%	\$ 438
Quinn Emanuel Urquhart & Sullivan	New York, NY	\$ 1,103	\$ 618	\$ 276	\$ 464	\$ 739	221.3	122.2	55.2%	\$ 408
Rabinowitz, Lubetkin & Tully	Livingston, NJ	\$ 412	\$ 195	\$ 103	\$ 146	\$ 249	128.4	122.2	95.2%	\$ 237
Rapport Osborne and Rapport	Boca Raton, FL	\$ 573	\$ 400	\$ 143	\$ 300	\$ 443	109.5	122.2	111.6%	\$ 495
Red Hill Law Group	Irvine, CA	\$ 390	\$ 300	\$ 98	\$ 225	\$ 323	140.7	122.2	86.9%	\$ 280
Reed Smith	New York, NY	\$ 800	\$ 575	\$ 200	\$ 431	\$ 631	221.3	122.2	55.2%	\$ 349
Richards, Layton & Finger	Wilmington, DE	\$ 763	\$ 360	\$ 191	\$ 270	\$ 461	108.4	122.2	112.8%	\$ 520
Ringstad & Sanders	Irvine, CA	\$ 625	\$ 375	\$ 156	\$ 281	\$ 438	140.7	122.2	86.9%	\$ 380
Rogers Law Offices	Atlanta, GA	\$ 325	\$ 275	\$ 81	\$ 206	\$ 288	93.5	122.2	130.7%	\$ 376
Roussos Lassiter Glanzer & Barnhart	Ashburn, VA	\$ 390	\$ 325	\$ 98	\$ 244	\$ 341	102.0	122.2	119.8%	\$ 409
Salazar Jackson	Coral Gables, FL	\$ 500	\$ 358	\$ 125	\$ 269	\$ 394	96.3	122.2	126.9%	\$ 499
Saul Ewing	Philadelphia, PA	\$ 525	\$ 335	\$ 131	\$ 251	\$ 383	121.2	122.2	100.9%	\$ 386
Schafer and Weiner	Bloomfield Hills, MI	\$ 376	\$ 265	\$ 94	\$ 199	\$ 293	96.1	122.2	127.1%	\$ 372
Schreeder, Wheeler & Flint	Atlanta, GA	\$ 450	\$ 280	\$ 113	\$ 210	\$ 323	93.5	122.2	130.7%	\$ 421
Scott H. Marcus & Associates	Turnersville, NJ	\$ 375	\$ 240	\$ 94	\$ 180	\$ 274	121.2	122.2	100.9%	\$ 276
Searcy & Searcy	Longview, TX	\$ 400	\$ 238	\$ 100	\$ 179	\$ 279	96.6	122.2	126.5%	\$ 352
Shapiro Croland Reiser Apfel & Di Iorio	Hackensack, NJ	\$ 373	\$ 275	\$ 93	\$ 206	\$ 300	133.0	122.2	91.9%	\$ 275

New Jersey American Water Company  
Estimated Billing Rates for New Jersey Attorneys

2016 Hourly Billing Rates

Firm Name	Location	Weighted Average Rate Calculation					Cost of Living (COL) Adjustment (Note B)			Adjusted Rate
		2016 Avg Billing Rates		0.25	0.75	(A)	COL Indices		(B)	
		Partner	Associate	Partner	Associate	Weighted Average	Law Firm Location	NJAW - Trenton, NJ	COL Adjustment	
Shaw Fishman Glantz & Towbin	Chicago, IL	\$ 425	\$ 210	\$ 106	\$ 158	\$ 264	117.4	122.2	104.1%	\$ 275
Sheppard, Mullin, Richter & Hampton	Los Angeles, CA	\$ 760	\$ 488	\$ 190	\$ 366	\$ 556	131.0	122.2	93.3%	\$ 519
Shulman Hodges & Bastian	Irvine, CA	\$ 550	\$ 295	\$ 138	\$ 221	\$ 359	140.7	122.2	86.9%	\$ 312
Shulman Rogers Gandal Pordy & Ecker	Potomac, MD	\$ 490	\$ 320	\$ 123	\$ 240	\$ 363	127.4	122.2	95.9%	\$ 348
Sidley Austin	Chicago, IL	\$ 925	\$ 738	\$ 231	\$ 554	\$ 785	117.4	122.2	104.1%	\$ 817
Simon Resnik Hayes	Sherman Oaks, CA	\$ 425	\$ 365	\$ 106	\$ 274	\$ 380	131.0	122.2	93.3%	\$ 354
Smith, Gilliam, Williams and Miles	Gainesville, GA	\$ 290	\$ 265	\$ 73	\$ 199	\$ 271	94.7	122.2	129.1%	\$ 350
Speckman & Associates	San Diego, CA	\$ 425	\$ 295	\$ 106	\$ 221	\$ 328	129.2	122.2	94.6%	\$ 310
Spencer Fane Britt & Browne	Kansas City, MO	\$ 450	\$ 268	\$ 113	\$ 201	\$ 314	98.0	122.2	124.7%	\$ 391
Springer Brown	Wheaton, IL	\$ 350	\$ 315	\$ 88	\$ 236	\$ 324	117.4	122.2	104.1%	\$ 337
Steffes Vingello	Baton Rouge, LA	\$ 350	\$ 275	\$ 88	\$ 206	\$ 294	91.7	122.2	133.2%	\$ 391
Stevenson & Bullock	Southfield, MI	\$ 363	\$ 275	\$ 91	\$ 206	\$ 297	96.1	122.2	127.1%	\$ 378
Stichter, Riedel, Blain & Postler	Tampa, FL	\$ 475	\$ 210	\$ 119	\$ 158	\$ 276	92.9	122.2	131.6%	\$ 364
Subranni, Ostrove & Zauber	Atlantic City, NJ	\$ 350	\$ 250	\$ 88	\$ 188	\$ 275	122.2	122.2	100.0%	\$ 275
Sugar Felsenthal Grais & Hammer	Chicago, IL	\$ 500	\$ 360	\$ 125	\$ 270	\$ 395	117.4	122.2	104.1%	\$ 411
SulmeyerKupetz	Los Angeles, CA	\$ 585	\$ 454	\$ 146	\$ 341	\$ 487	131.0	122.2	93.3%	\$ 454
Taylor, Porter, Brooks & Phillips	Baton Rouge, LA	\$ 375	\$ 225	\$ 94	\$ 169	\$ 263	91.7	122.2	133.2%	\$ 350
Tetzlaff Law Offices	Chicago, IL	\$ 575	\$ 250	\$ 144	\$ 188	\$ 331	117.4	122.2	104.1%	\$ 345
The Callins Law Firm	Atlanta, GA	\$ 175	\$ 175	\$ 44	\$ 131	\$ 175	93.5	122.2	130.7%	\$ 229
The Eidson Law Firm	Jacksonville, FL	\$ 365	\$ 233	\$ 91	\$ 175	\$ 266	95.5	122.2	127.9%	\$ 340
The Fuller Law Firm	San Jose, CA	\$ 465	\$ 448	\$ 116	\$ 336	\$ 452	148.8	122.2	82.2%	\$ 372
The Grant Law Firm	San Diego, CA	\$ 550	\$ 338	\$ 138	\$ 254	\$ 391	129.2	122.2	94.6%	\$ 370
The Janvier Law Firm	Raleigh, NC	\$ 435	\$ 273	\$ 109	\$ 205	\$ 314	94.6	122.2	129.2%	\$ 405
The Law Office of William J. Factor	Northbrook, IL	\$ 350	\$ 275	\$ 88	\$ 206	\$ 294	117.4	122.2	104.1%	\$ 306
The Law Offices of Demetrius J. Parrish	Philadelphia, PA	\$ 300	\$ 275	\$ 75	\$ 206	\$ 281	121.2	122.2	100.9%	\$ 284
The Law Offices of Jason A. Burgess	Jacksonville, FL	\$ 295	\$ 195	\$ 74	\$ 146	\$ 220	95.5	122.2	127.9%	\$ 281
Thompson Burton	Franklin, TN	\$ 375	\$ 200	\$ 94	\$ 150	\$ 244	86.3	122.2	141.6%	\$ 345
Tiemstra Law Group	Oakland, CA	\$ 495	\$ 300	\$ 124	\$ 225	\$ 349	134.9	122.2	90.6%	\$ 316
Trenk DiPasquale Della Fera & Sodono	West Orange, NJ	\$ 460	\$ 240	\$ 115	\$ 180	\$ 295	128.4	122.2	95.2%	\$ 281
Walker & Patterson	Houston, TX	\$ 400	\$ 300	\$ 100	\$ 225	\$ 325	99.0	122.2	123.5%	\$ 401
Waller Lansden Dortch & Davis	Nashville, TN	\$ 478	\$ 250	\$ 120	\$ 188	\$ 307	86.3	122.2	141.6%	\$ 435
Wasserman Jurista & Stolz	Basking Ridge, NJ	\$ 550	\$ 375	\$ 138	\$ 281	\$ 419	128.4	122.2	95.2%	\$ 399
Weissberg & Associates	Chicago, IL	\$ 450	\$ 350	\$ 113	\$ 263	\$ 375	117.4	122.2	104.1%	\$ 390
Winthrop Couchot	Newport Beach, CA	\$ 673	\$ 385	\$ 168	\$ 289	\$ 457	140.7	122.2	86.9%	\$ 397
Young Conaway Stargatt & Taylor	Wilmington, DE	\$ 678	\$ 403	\$ 170	\$ 302	\$ 472	108.4	122.2	112.8%	\$ 532
Zalkin Revell	Santa Rosa Beach, FL	\$ 300	\$ 300	\$ 75	\$ 225	\$ 300	97.6	122.2	125.2%	\$ 376
<b>Overall 2016 Average Hourly Billing Rate</b>										<b>\$ 404</b>

Note A: Source is National Law Journal 2016 Billing Survey

Note B: Cost of Living Index, Source Council for Community and Economic Research

New Jersey American Water Company  
Billing Rates of U.S. Management Consultants

Survey billing rates in effect in 2015 (Note A)

A. Calculation of Average Hourly Billing Rate by Consultant Position

Average Hourly Rates (Note A)					
Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$ 173	\$ 227	\$ 280	\$ 323	\$ 388

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement

	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)	\$ 173	\$ 227	\$ 280	\$ 323	\$ 388	
Percent of Consulting Assignment	25%	25%	25%	15%	10%	Weighted Average
	\$ 43	\$ 57	\$ 70	\$ 48	\$ 39	\$ 258

Escalation to 2017 Test Year Midpoint (September 30, 2016)

CPI at December 31, 2015	236.5
CPI at September 30, 2016	241.4
Inflation/Escalation (Note B)	2.1%
Avg Hourly Billing Rate For Management Consultants During 2017 Test Year	<b>\$ 263</b>

Note A: Source is "Operating Ratios For Management Consulting Firms, 2016 Edition," Association of Management Consulting Firms

Note B: Source is U.S. Bureau of Labor Statistics (<http://data.bls.gov/cgi-bin/surveymost>)

**New Jersey American Water Company**  
**Billing Rates of New Jersey Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position  
 Survey billing rates were those in effect in 2015 (Note A)

Average Hourly Billing Rate (Note A)					
	Staff Accountant	Senior Accountant	Manager	Partner	
Average Hourly Billing Rate by CPA Firm Position	\$ 100	\$ 143	\$ 190	\$ 251	
Percent of Accounting Assignment	30%	30%	20%	20%	Weighted Average
	\$ 30	\$ 43	\$ 38	\$ 50	<b>\$ 161</b>
Average Hourly Billing Rate For CPAs At December 31, 2015					\$ 161
<u>Escalation to 2017 Test Year Midpoint (September 30, 2016)</u>					
CPI at December 31, 2015					236.5
CPI at September 30, 2016					241.4
Inflation/Escalation (Note B)					2.1%
Avg Hourly Billing Rate For Management Consultants During 2017 Test Year					<b>\$ 164</b>

Note A: Source is AICPA's 2016 National PCPS/TSCPA Management of an Accounting Practice Survey (New Jersey edition)

Note B: Source is U.S. Bureau of Labor Statistics (<http://data.bls.gov/cgi-bin/surveymost>)

New Jersey American Water Company  
Billing Rates of Information Technology Professionals

A. Calculation of Average Hourly Billing Rate by Technology and Innovation Position  
Survey billing rates were those in effect in 2016 (Note A)

		Average Hourly Billing Rate (Note A)				
		Contractor Positions		Consultant Positions		
		Contractor	Senior Contractor	Associate	Manager	Partner
Average Hourly Billing Rate by T&I Position Category		\$ 101	\$ 150	\$ 263	\$ 371	\$ 464
Percent of T&I Assignment		30%	30%	20%	10%	10%
		\$ 30	\$ 45	\$ 53	\$ 37	\$ 46
Average Hourly Billing Rate For T&I Professionals During 2016						<b>\$ 211</b>

Note A: Source is Baryenbruch & Company, LLC

**New Jersey American Water Company  
Billing Rates of New Jersey Engineers**

A. Calculation of Average 2016 Hourly Rate by Engineer Position				
Name of Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$93	\$109	\$180	\$230
Firm #2	\$72	\$89	\$150	\$195
Firm #3	\$78	\$113	\$182	\$231
Firm #4	\$107	\$127	\$208	\$250
Firm #5	\$145	\$132	\$198	\$281
Firm #6	\$101	\$119	\$180	\$216
Firm #7	\$93	\$108	\$140	\$205
Firm #8	\$86	\$103	\$142	\$198
Firm #9	\$88	\$95	\$138	\$180

B. Calculation of Overall Average Engineering Hourly Billing Rate					
	Technician	Engineer	Project Manager	Officer	Weighted Average
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$96	\$110	\$169	\$221	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$29	\$39	\$42	\$22	<b>\$132</b>

Source: Information provided by American Water Works Service Company

V – Question 2 – Provision of Services at the Lower of Cost or Market

**Service Company versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

12 Months Ended March 31, 2017			
Service Provider	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 273	\$ 404	\$ (131)
Management Consultant	\$ 215	\$ 263	\$ (48)
Certified Public Accountant	\$ 92	\$ 161	\$ (69)
T&I Professional	\$ 116	\$ 211	\$ (95)
Professional Engineer	\$ 89	\$ 132	\$ (43)

Based on these cost-per-hour differentials and the number of managerial and professional services hours billed to NJAW during the 12 months ended March 31, 2017, outside service providers would have cost \$15,768,398 more than the Service Company (see table below). Thus, on average, outside providers' hourly rates are 36% higher than those of the Service Company (\$15,768,398 / \$43,408,998).

12 Months Ended March 31, 2017			
Service Provider	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (131)	7,304	\$ (959,125)
Management Consultant	\$ (48)	37,759	\$ (1,806,683)
Certified Public Accountant	\$ (69)	56,746	\$ (3,914,368)
T&I Professional	\$ (95)	77,852	\$ (7,411,159)
Professional Engineer	\$ (43)	39,312	\$ (1,677,062)
Service Company Less Than Outside Providers			\$ (15,768,398)

It should be noted that the cost differential associated with using outside providers is even greater because exempt Service Company personnel do not charge more than 8 hours per day even when they work more. Outside providers generally charge clients for all hours worked. Thus, NJAW would have been charged by outside providers for overtime worked by Service Company personnel who are not paid for that time.

If NJAW were to use outside service providers rather than the Service Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform almost 219,000 hours of work (around 146 full-time equivalents at 1,500 "billable" hours per FTE per year) would add a significant workload to the existing NJAW management team. Thus, it would be necessary for NJAW to add at least three positions to supervise the outside firms and ensure they deliver quality and timely services. The individuals who would fill these positions would need a good understanding of each profession being managed. The persons must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, these positions would add more than \$447,000 per year to NJAW's personnel expenses.

V – Question 2 – Provision of Services at the Lower of Cost or Market

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Cost of Adding 3 Professional Positions To NJAW's Staff

	<u>Total</u>
New Positions' Salary	\$ 100,000
Benefits (at 49%)	\$ 49,000
Office Expenses (15%)	<u>\$ 15,000</u>
Total Cost per Position	\$ 149,000
Number of Positions Required	<u>3</u>
Total Cost of Added NJAW Staff	<u>\$ 447,000</u>

Thus, the total effect on the ratepayers of NJAW of contracting all services now provided by Service Company would be an increase in their costs of \$16,215,398 (\$15,768,398 + \$447,000). Based on the results of this comparison, it is possible to conclude that the Service Company charged NJAW at the lower of cost or market for services provided during the 12 months ended March 31, 2017.





## VI - Question 3 - Reasonableness of Customer Accounts Services Costs

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### Background

Customer Accounts Services involve the processes that occur from the time meter-read data is recorded in the customer information system through the printing and mailing of bills, concluding with the collection and processing of customer payments. Customer Accounts Services are accomplished by the following utility functions:

- Customer Call Center Operations – customer calls/contact, credit, order taking/disposition, bill collection efforts and outage calls
- Customer Call Center Maintenance – support of phone banks, voice recognition units, call center software applications and telecommunications
- Customer billing – bill printing, stuffing and mailing
- Remittance processing – processing customer payments received in the mail
- Bill payment centers – processing customer payments at locations where customers can pay their bills in person

Neighboring electric utility cost information comes from the FERC Form 1 that each utility subject to FERC regulation must file. FERC’s chart of accounts is defined in Chapter 18, Part 101 of the Code of Federal Regulations. FERC accounts that contain expenses related to customer accounts services are Account 903 Customer Accounts Expense – Records and Collection Expense and Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense. Exhibit 11 provides FERC’s definition of the type of expenses that should be recorded in these accounts.

In addition to the charges in these FERC accounts, labor-related overhead charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905:

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer’s portion of FICA)

### Comparison Group

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 reports show amounts for accounts 903 and 905.

New Jersey	<ul style="list-style-type: none"> <li>• Atlantic City Electric</li> <li>• Jersey Central Power</li> </ul>	<ul style="list-style-type: none"> <li>• Public Svc Electric &amp; Gas</li> <li>• Rockland Electric</li> </ul>
New York	<ul style="list-style-type: none"> <li>• Central Hudson Gas &amp; Electric</li> <li>• Consolidated Edison</li> <li>• New York State Elect &amp; Gas</li> </ul>	<ul style="list-style-type: none"> <li>• Niagara Mohawk</li> <li>• Orange &amp; Rockland Utilities</li> <li>• Rochester Gas &amp; Electric</li> </ul>
Pennsylvania	<ul style="list-style-type: none"> <li>• Duquesne Light</li> <li>• Metropolitan Edison</li> <li>• PECO Energy</li> <li>• Pennsylvania Electric</li> </ul>	<ul style="list-style-type: none"> <li>• Pennsylvania Power</li> <li>• PPL Electric Utilities</li> <li>• West Penn Power</li> </ul>
Maryland	<ul style="list-style-type: none"> <li>• Baltimore Gas &amp; Electric</li> <li>• Delmarva Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• Potomac Edison</li> <li>• Potomac Electric</li> </ul>

New Jersey American Water Company  
FERC Account Descriptions

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

New Jersey American Water Company  
FERC Account Descriptions

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

## VI - Question 3 - Reasonableness of Customer Accounts Services Costs

### NJAW's Cost per Customer

As calculated below, NJAW's customer accounts services expense per customer was \$20.92 for the 12 months ended March 31, 2017. The cost pool used to calculate this average includes charges for Service Company services (e.g., call center, billing, payment processing) and postage and forms expenses, which are incurred directly by NJAW. It was necessary to adjust the Service Company's National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.05 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs if it had had 2.50 calls per customer.

New Jersey American Water Company		Year Ended 3/31/17 Service Co Charges	Adjustment Fewer Calls For Water Cos. (A)	Adjusted
Service Company	Call Centers	\$ 7,611,976	\$ 2,247,523	\$ 9,859,499
Service Company	Customer payment processing			\$ 637,062 (B)
Operating Company	Postage & forms			\$ 3,537,317
		Cost Pool Total		\$ 14,033,877
		Total Customers		670,704
<b>Year Ended March 31, 2017 Cost Per New Jersey American Customer</b>				<b><u>\$ 20.92</u></b>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Call handling expenses	\$ 1,627,482	
Electric utility industry's avg calls/customer	2.50	
American Water's avg calls/customer	1.05	
Percent different	138%	138%
Total Adjustment	\$ 2,247,523	

Note B: Estimated customer payment processing expenses

Number of customer bills	7,983,235
Bank charge per item	\$ 0.0798
Total estimated annual expense	\$ 637,062

### Electric Utility Group Cost per Customer

Exhibit 12 (pages 35-37) shows the calculation of customer accounts expense per customer for 2016 for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.



**New Jersey American Water Company**  
**Comparison Group 2016 Customer Accounts Expense Per Customer**

	New Jersey				Maryland			
	Atlantic City Electric	Jersey Central Power	Public Service Electric & Gas	Rockland Electric	Baltimore Gas & Electric	Delmarva Power & Light	Potomac Edison	Potomac Electric
<b>Customer Account Services Cost Pool</b>								
FERC Account Balances:								
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 54,784,495	\$ 14,529,797	\$ 75,788,531	\$ 3,656,047	\$ 35,026,270	\$ 48,942,082	\$ 4,900,952	\$ 79,094,511
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ -	\$ 988,488	\$ 85,545,980	\$ 106,315	\$ 405,487	\$ -	\$ 381,741	\$ -
Subtotal	\$ 54,784,495	\$ 15,518,285	\$ 161,334,511	\$ 3,762,362	\$ 35,431,757	\$ 48,942,082	\$ 5,282,693	\$ 79,094,511
Add: Employee Benefits & Employer FICA (not included in above amounts)								
Account 926 - Employee Pension & Benefits (Note A)	\$ 1,012,055	\$ 5,275,624	\$ 8,678,096	\$ 1,288,649	\$ 5,033,341	\$ 965,313	\$ 67,459	\$ 7,325,249
Account 408 - Taxes Other Than Income (Employer's Portion of FICA) (Note B)	\$ 221,469	\$ 576,300	\$ 4,126,556	\$ 162,399	\$ 1,740,691	\$ 245,249	\$ 157,753	\$ 1,379,317
<b>Total Cost Pool</b>	<b>\$ 56,018,019</b>	<b>\$ 21,370,210</b>	<b>\$ 174,139,162</b>	<b>\$ 5,213,410</b>	<b>\$ 42,205,789</b>	<b>\$ 50,152,644</b>	<b>\$ 5,507,906</b>	<b>\$ 87,799,077</b>
Total Customers (page 304, line 43)	548,442	1,113,459	2,227,065	73,117	1,268,995	516,709	402,327	848,171
<b>Customer Account Services Expense per Customer</b>	<b>\$ 102.14</b>	<b>\$ 19.19</b>	<b>\$ 78.19</b>	<b>\$ 71.30</b>	<b>\$ 33.26</b>	<b>\$ 97.06</b>	<b>\$ 13.69</b>	<b>\$ 103.52</b>
<b>Note A:</b> Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt								
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 12,070,521	\$ 42,651,193	\$ 57,947,857	\$ 6,686,875	\$ 51,499,433	\$ 15,229,519	\$ 471,267	\$ 32,396,514
Total O&M Payroll (page 355, line 65)	\$ 34,528,085	\$ 60,903,869	\$ 360,196,296	\$ 11,015,626	\$ 232,812,574	\$ 50,578,193	\$ 14,405,992	\$ 79,740,443
Benefits as Percent of Payroll	35.0%	70.0%	16.1%	60.7%	22.1%	30.1%	3.3%	40.6%
Payroll Applicable to Customer Account Services								
Total Payroll Charged to Customer Accounts Function								
Electric (page 354, line 7)	\$ 3,185,028	\$ 13,691,062	\$ 59,602,007	\$ 2,639,424	\$ 23,801,205	\$ 3,564,743	\$ 3,664,255	\$ 18,947,243
Percent Applicable to Customer Accounts Services (903 and 905):								
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 54,784,495	\$ 14,529,797	\$ 75,788,531	\$ 3,656,047	\$ 35,026,270	\$ 48,942,082	\$ 4,900,952	\$ 79,094,511
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ -	\$ 988,488	\$ 85,545,980	\$ 106,315	\$ 405,487	\$ -	\$ 381,741	\$ -
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 54,784,495	\$ 15,518,285	\$ 161,334,511	\$ 3,762,362	\$ 35,431,757	\$ 48,942,082	\$ 5,282,693	\$ 79,094,511
Acct 902 - Meter Reading Expenses (page 322, line 160)	\$ 5,488,160	\$ 12,684,585	\$ 16,928,759	\$ 915,518	\$ 1,630,452	\$ 5,478,760	\$ 4,104,236	\$ 4,022,446
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	\$ 60,272,655	\$ 28,202,870	\$ 178,263,270	\$ 4,677,880	\$ 37,062,209	\$ 54,420,842	\$ 9,386,929	\$ 83,116,957
Percent Applicable to Customer Accounts Services (903 and 905)	90.9%	55.0%	90.5%	80.4%	95.6%	89.9%	56.3%	95.2%
Customer Account Services Portion of Total Payroll	\$ 2,895,014	\$ 7,533,340	\$ 53,941,907	\$ 2,122,857	\$ 22,754,135	\$ 3,205,866	\$ 2,062,137	\$ 18,030,291
Pension & Benefits Pertaining to Customer Accounts Services	\$ 1,012,055	\$ 5,275,624	\$ 8,678,096	\$ 1,288,649	\$ 5,033,341	\$ 965,313	\$ 67,459	\$ 7,325,249
<b>Note B:</b> Calculation of Employer's FICA Pertaining to Customer Accts Services								
Customer Account Services Portion of Total Payroll	\$ 2,895,014	\$ 7,533,340	\$ 53,941,907	\$ 2,122,857	\$ 22,754,135	\$ 3,205,866	\$ 2,062,137	\$ 18,030,291
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
Estimated Employer's Portion of FICA	\$ 221,469	\$ 576,300	\$ 4,126,556	\$ 162,399	\$ 1,740,691	\$ 245,249	\$ 157,753	\$ 1,379,317

**New Jersey American Water Company**  
**Comparison Group 2016 Customer Accounts Expense Per Customer**

	Pennsylvania						
	Duquesne Light	Metropolitan Edison	PECO Energy	Pennsylvania Electric	Pennsylvania Power	PPL Electric Utilities	West Penn Power
<b>Customer Account Services Cost Pool</b>							
FERC Account Balances:							
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 9,890,742	\$ 6,691,643	\$ 64,621,541	\$ 7,124,347	\$ 1,859,337	\$ 39,550,471	\$ 7,674,470
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ -	\$ 451,846	\$ 6,428,476	\$ 516,307	\$ 131,796	\$ 2,478,973	\$ 458,158
Subtotal	\$ 9,890,742	\$ 7,143,489	\$ 71,050,017	\$ 7,640,654	\$ 1,991,133	\$ 42,029,444	\$ 8,132,628
Add: Employee Benefits & Employer FICA (not included in above amounts)							
Account 926 - Employee Pension & Benefits (Note A)	\$ 3,424,468	\$ 1,427,642	\$ 6,263,005	\$ 1,767,909	\$ 360,540	\$ 6,814,809	\$ 820,225
Account 408 - Taxes Other Than Income (Employer's Portion of FICA) (Note B)	\$ 685,392	\$ 233,823	\$ 2,363,598	\$ 227,331	\$ 34,178	\$ 1,851,590	\$ 240,474
<b>Total Cost Pool</b>	<b>\$ 14,000,602</b>	<b>\$ 8,804,954</b>	<b>\$ 79,676,620</b>	<b>\$ 9,635,894</b>	<b>\$ 2,385,850</b>	<b>\$ 50,695,843</b>	<b>\$ 9,193,326</b>
Total Customers (page 304, line 43)	587,954	562,850	1,616,079	587,251	164,285	1,426,676	723,352
<b>Customer Account Services Expense per Customer</b>	<b>\$ 23.81</b>	<b>\$ 15.64</b>	<b>\$ 49.30</b>	<b>\$ 16.41</b>	<b>\$ 14.52</b>	<b>\$ 35.53</b>	<b>\$ 12.71</b>
<b>Note A: Calculation of Pension &amp; Benefits Pertaining to Customer Acct Mgmt</b>							
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 29,425,711	\$ 13,246,233	\$ 38,821,728	\$ 17,074,739	\$ 4,260,419	\$ 21,383,935	\$ 6,090,691
Total O&M Payroll (page 355, line 65)	\$ 76,985,893	\$ 28,359,582	\$ 191,515,640	\$ 28,700,577	\$ 5,279,379	\$ 75,948,162	\$ 23,342,104
Benefits as Percent of Payroll	38.2%	46.7%	20.3%	59.5%	80.7%	28.2%	26.1%
Payroll Applicable to Customer Account Services							
Total Payroll Charged to Customer Accounts Function Electric (page 354, line 7)	\$ 12,108,546	\$ 5,362,851	\$ 31,173,617	\$ 4,837,330	\$ 690,475	\$ 25,806,688	\$ 5,493,577
Percent Applicable to Customer Accounts Services (903 and 905):							
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 9,890,742	\$ 6,691,643	\$ 64,621,541	\$ 7,124,347	\$ 1,859,337	\$ 39,550,471	\$ 7,674,470
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ -	\$ 451,846	\$ 6,428,476	\$ 516,307	\$ 131,796	\$ 2,478,973	\$ 458,158
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 9,890,742	\$ 7,143,489	\$ 71,050,017	\$ 7,640,654	\$ 1,991,133	\$ 42,029,444	\$ 8,132,628
Acct 902 - Meter Reading Expenses (page 322, line 160)	\$ 3,476,554	\$ 5,390,215	\$ 636,788	\$ 4,797,035	\$ 1,086,131	\$ 2,783,407	\$ 6,080,180
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	\$ 13,367,296	\$ 12,533,704	\$ 71,686,805	\$ 12,437,689	\$ 3,077,264	\$ 44,812,851	\$ 14,212,808
Percent Applicable to Customer Accounts Services (903 and 905)	74.0%	57.0%	99.1%	61.4%	64.7%	93.8%	57.2%
Customer Account Services Portion of Total Payroll	\$ 8,959,367	\$ 3,056,516	\$ 30,896,704	\$ 2,971,642	\$ 446,769	\$ 24,203,788	\$ 3,143,448
Pension & Benefits Pertaining to Customer Accounts Services	\$ 3,424,468	\$ 1,427,642	\$ 6,263,005	\$ 1,767,909	\$ 360,540	\$ 6,814,809	\$ 820,225
<b>Note B: Calculation of Employer's FICA Pertaining to Customer Accts Services</b>							
Customer Account Services Portion of Total Payroll	\$ 8,959,367	\$ 3,056,516	\$ 30,896,704	\$ 2,971,642	\$ 446,769	\$ 24,203,788	\$ 3,143,448
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
Estimated Employer's Portion of FICA	\$ 685,392	\$ 233,823	\$ 2,363,598	\$ 227,331	\$ 34,178	\$ 1,851,590	\$ 240,474

**New Jersey American Water Company**  
**Comparison Group 2016 Customer Accounts Expense Per Customer**

	New York					
	Central Hudson Gas & Electric	Consolidated Edison	New York State Electric & Gas	Niagra Mohawk	Orange & Rockland	Rochester Gas & Electric
<b>Customer Account Services Cost Pool</b>						
FERC Account Balances:						
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 11,236,363	\$ 120,212,311	\$ 28,835,863	\$ 35,867,469	\$ 12,364,821	\$ 13,128,200
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ 993,135	\$ 523,229	\$ 11,238,075	\$ 3,049,713	\$ 79,245	\$ 4,066,567
Subtotal	\$ 12,229,498	\$ 120,735,540	\$ 40,073,938	\$ 38,917,182	\$ 12,444,066	\$ 17,194,767
Add: Employee Benefits & Employer FICA (not included in above amounts)						
Account 926 - Employee Pension & Benefits (Note A)	\$ 1,680,627	\$ 52,198,266	\$ 106,584	\$ 5,153,931	\$ 2,699,138	\$ (277,873)
Account 408 - Taxes Other Than Income (Employer's Portion of FICA) (Note B)	\$ 497,911	\$ 7,288,020	\$ 1,139,284	\$ 1,325,070	\$ 545,093	\$ 453,876
<b>Total Cost Pool</b>	<b>\$ 14,408,036</b>	<b>\$ 180,221,826</b>	<b>\$ 41,319,807</b>	<b>\$ 45,396,183</b>	<b>\$ 15,688,297</b>	<b>\$ 17,370,771</b>
Total Customers (page 304, line 43)	261,411	3,420,122	890,260	1,323,415	229,532	375,914
<b>Customer Account Services Expense per Customer</b>	<b>\$ 55.12</b>	<b>\$ 52.69</b>	<b>\$ 46.41</b>	<b>\$ 34.30</b>	<b>\$ 68.35</b>	<b>\$ 46.21</b>
<b>Note A:</b> Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt						
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 18,845,000	\$ 431,840,065	\$ 915,537	\$ 86,306,165	\$ 28,707,534	\$ (2,642,530)
Total O&M Payroll (page 355, line 65)	\$ 72,981,883	\$ 788,161,109	\$ 127,924,381	\$ 290,055,197	\$ 75,784,351	\$ 56,422,203
Benefits as Percent of Payroll	25.8%	54.8%	0.7%	29.8%	37.9%	-4.7%
Payroll Applicable to Customer Account Services						
Total Payroll Charged to Customer Accounts Function						
Electric (page 354, line 7)	\$ 7,620,785	\$ 120,063,894	\$ 18,209,842	\$ 18,335,272	\$ 8,968,781	\$ 6,786,996
Percent Applicable to Customer Accounts Services (903 and 905):						
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 11,236,363	\$ 120,212,311	\$ 28,835,863	\$ 35,867,469	\$ 12,364,821	\$ 13,128,200
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ 993,135	\$ 523,229	\$ 11,238,075	\$ 3,049,713	\$ 79,245	\$ 4,066,567
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 12,229,498	\$ 120,735,540	\$ 40,073,938	\$ 38,917,182	\$ 12,444,066	\$ 17,194,767
Acct 902 - Meter Reading Expenses (page 322, line 160)	\$ 2,089,680	\$ 31,424,078	\$ 8,926,222	\$ 2,278,464	\$ 3,219,366	\$ 2,474,939
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	\$ 14,319,178	\$ 152,159,618	\$ 49,000,160	\$ 41,195,646	\$ 15,663,432	\$ 19,669,706
Percent Applicable to Customer Accounts Services (903 and 905)	85.4%	79.3%	81.8%	94.5%	79.4%	87.4%
Customer Account Services Portion of Total Payroll	\$ 6,508,640	\$ 95,268,240	\$ 14,892,606	\$ 17,321,178	\$ 7,125,393	\$ 5,933,023
Pension & Benefits Pertaining to Customer Accounts Services	\$ 1,680,627	\$ 52,198,266	\$ 106,584	\$ 5,153,931	\$ 2,699,138	\$ (277,873)
<b>Note B:</b> Calculation of Employer's FICA Pertaining to Customer Accts Services						
Customer Account Services Portion of Total Payroll	\$ 6,508,640	\$ 95,268,240	\$ 14,892,606	\$ 17,321,178	\$ 7,125,393	\$ 5,933,023
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
Estimated Employer's Portion of FICA	\$ 497,911	\$ 7,288,020	\$ 1,139,284	\$ 1,325,070	\$ 545,093	\$ 453,876

Group Average
\$ 931,204,225
19,167,386
\$ 48.58

## VI - Question 3 - Reasonableness of Customer Accounts Services Costs

### Summary of Results

As shown in the table below, NJAW's cost per customer is well below than the 2016 average cost of the neighboring electric utility comparison group. It can be concluded that NJAW's 12 months ended March 31, 2017 customer accounts expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to NJAW are comparable to those of other utilities.

Customer Account Services Expenses Per Customer		
West Penn Power Company	\$	12.71
Potomac Edison	\$	13.69
Pennsylvania Power Company	\$	14.52
Metropolitan Edison Company	\$	15.64
Pennsylvania Electric Company	\$	16.41
Jersey Central Power & Light Company	\$	19.19
<b>New Jersey American Water</b>	<b>\$</b>	<b>20.92</b>
Duquesne Light Company	\$	23.81
Baltimore Gas & Electric	\$	33.26
Niagra Mohawk	\$	34.30
PPL Electric Utilities Corporation	\$	35.53
Rochester Gas & Electric Corporation	\$	46.21
New York State Electric & Gas Corporation	\$	46.41
<b>Comparison Group Average</b>	<b>\$</b>	<b>48.58</b>
PECO Energy Company	\$	49.30
Consolidated Edison Company	\$	52.69
Central Hudson Gas & Electric Company	\$	55.12
Orange & Rockland	\$	68.35
Rockland Electric	\$	71.30
Public Service Electric & Gas Company	\$	78.19
Delmarva Power & Light Company	\$	97.06
Atlantic City Electric Company	\$	102.14
Potomac Electric	\$	103.52





## VI - Question 4 – Need for Service Company Services

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### **Analysis of Services**

The final aspect of this study is an assessment of whether the services provided to NJAW by the Service Company would be necessary if NJAW were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for NJAW. Based on discussions with Service Company personnel, the matrix in Exhibit 13 (pages 40-42) was created showing which entity—NJAW or a Service Company location—is responsible for each of the functions NJAW requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Exhibit 13, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if NJAW were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to NJAW. For all of the services listed in Exhibit 13, there was only one entity that was primarily responsible for the service.



**New Jersey American Water Company**  
**Designation of Responsibility for Water Utility Functions**

P - Primarily Responsible S - Provides Support	Performed By:			
	NJAW	American Water Service Company		
		Customer Call Center	Central Services	T&I Service Centers
Water Company Function				
<b>Engineering and Construction Management</b>				
CPS Preparation	P		S	
Five-Year System Planning	P		S	
Engineering Standards & Policies Development			P	
Project Design				
Major Projects (e.g., new treatment plant)	P		S	
Special Projects	P		S	
Minor Projects (e.g., pipelines)	P			
Construction Project Management				
Major Projects	P		S	
Special Projects	P			
Minor Projects	P			
Hydraulics Review	P			
Developers Extensions	P			
Tank Painting	P			
<b>Water Quality and Purification</b>				
Water Quality Standards Development	P (1)		P (1)	S
Research Studies	S		P	S
Water Quality Program Implementation	P		S	S
Water Treatment Operations & Maintenance	P		S	
Compliance Sampling	P			S
Testing/Other Sampling	P			S
<b>Transmission and Distribution</b>				
Preventive Maintenance Program Development	P		S	
System Maintenance	P		S	
Leak Detection	P		S	
<b>Customer Service</b>				
Community Relations	P			
Customer Contact	P (2)	P (2)		
Call Processing		P		
Service Order Processing	P	S		
Customer Credit		P		
Meter Reading	P			S
Customer Bill Preparation		P		S
Bill Collection	S	P		S
Customer Payment Processing	S		P	S
Meter Standards Development	S			P
Meter Testing, Maintenance & Replacement	P			

Note 1: NJAW responsible for State regulations, Central Services responsible for Federal regulations

Note 2: NJAW provides in-person customer contact while Service Company call centers provide customer phone contact

**New Jersey American Water Company**  
**Designation of Responsibility for Water Utility Functions**

Water Company Function	NJAW	Performed By:			
		American Water Service Company			
		Customer Call Center	Central Services	T&I Service Centers	Central Lab
<b>Financial Management</b>					
Financial Planning			P		
Financings--Equity			P		
Financings--Long Term Debt & Preferred (Note A)			P		
Short Term Lines of Credit Arrangements(Note A)			P		
Investor Relations			P		
Insurance Program Administration			P		
Loss Control/Safety Program Administration			P		
Pension Fund Asset Management			P		
Cash Management/Disbursements			P		
<b>Internal Auditing</b>			P		
<b>Budgeting and Variance Reporting</b>					
Corporate Guidelines & Instructions			P		
Budget Preparation					
Revenue and O&M			P		
Depreciation and Interest Expense			P		
Budget Preparation--Service Company Charges		S	P	S	S
Capital Budget Preparation—Projects	S		P		
Capital Budget Preparation—Non-Project Work	S		P		
Prepare Monthly Budget Variance Report (Budget/Plan Analysis)			P		
Prepare Capital Project Budget Status Report			P		
Year-End Projections			P		
<b>Accounting and Taxes</b>					
Accounts Payable Accounting			P		
Payroll Accounting			P		
Work Order Accounting			P		
Fixed Asset Accounting			P		
Journal Entry Preparations--Billing Corrections			P		
Journal Entry Preparation--All Others			P		
Financial Statement Preparation			P		
State Commission Reporting			P		
Income Taxes--State			P		
Income Taxes--Federal			P		
Property Taxes			P		
Gross Receipts (Town) Taxes			P		

Note A: Lines of credit are the responsibility of American Water Capital Corporation (AWCC). AWCC is also responsible for Corporate financings which may be distributed to the regulated subsidiaries. NJAW has the ability to issue LTD.

New Jersey American Water Company  
Designation of Responsibility for Water Utility Functions

Water Company Function	NJAW	Performed By:			
		American Water Service Company			
		Customer Call Center	Central Services	I&I Service Centers	Central Lab
<b>P - Primarily Responsible</b>					
<b>S - Provides Support</b>					
<b>Rates</b>					
Rate Studies & Tariff Change Administration	P		S		
Rate Case Planning and Preparation	P		S		
Rate Case Administration	P		S		
Commission Inquiry Response	P		S		
<b>Legal</b>	P		S		
<b>Purchasing and Materials Management – National (pipe, chemicals, meters, etc.)</b>					
Specification Development	S		P		
Bid Solicitation	S		P		
Contract Administration	S		P		
<b>Purchasing and Materials Management – State (state supplier service agreements)</b>					
Specification Development	P		S		
Bid Solicitation	P				
Contract Administration	P				
Ordering	P				
Inventory Management	P				
<b>Human Resources Management</b>					
Benefit Program Development			P		
Benefits Program Administration			P		
Management Compensation Administration			P		
Wage & Salary Program Design			P		
Wage & Salary Administration	S		P		
Labor Negotiations--Wages	S		P		
Labor Negotiations--Benefits	S		P		
Labor Negotiations-- Work Rules	S		P		
Training Program Development	S		P		
Training--Course Delivery	S		P		
Affirmative Action/EEO--Plan Development	S		P		
Affirmative Action/EEO--Implementation	P		S		
<b>Technology &amp; Innovation Services</b>					
Service Company Data Centers					
System Operations & Maintenance				P	
Software Maintenance				P	
Network Administration				P	
Workstation Acquisition & Support	S			P	
Help Desk				P	

## VI - Question 4 – Need for Service Company Services

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### **Governance Practices Associated with Service Company Charges**

There are several ways by which NJAW exercises control over Service Company services and charges. The most important of these are described below.

1. **NJAW Company Board Oversight** – The NJAW board of directors includes members of American Water’s Executive Management Team, members of the NJAW management team and external business and community leaders. This diverse board ensures that NJAW’s needs are a factor in the delivery of Service Company services. The NJAW Board meets at a minimum of four times each year and at every meeting financial and operational reports and issues are discussed at length.
2. **NJAW President Oversight** – The NJAW President is responsible for the overall performance of NJAW, including services and charges received from the American Water Service Company. The President of NJAW is also a board member on the Service Company’s Board of Directors (see below for further discussion). In addition, as part of the overall management team of American Water through the President of Regulated Operations, NJAW’s President has a significant voice in major business decisions of American Water. As one of nine direct reports to the Chief Operating Officer (COO) of Regulated Operations, NJAW’s President has the ability to monitor Service Company performance quality and spending.
3. **NJAW Director Finance and Treasurer** – The Director Finance and Treasurer is responsible for the financial reporting and performance, as well as the internal control performance of the NJAW. The Director Finance and Treasurer monitors the performance, expense and reporting from the Service Company and verifies and validates the cost of services received. In addition, the Director Finance and Treasurer through the Financial Analysis and Decision Support staff reviews the monthly charges and investigates whether the amount, quality and/or services are appropriate.
4. **Service Company Board Oversight** – The Service Company Board of Directors is comprised of 16 members, of which NJAW President is one of the members. They typically meet four times a year to provide governance on the activities and bylaws of Service Company. Their primary responsibilities include:
  - Approve the Business Plan and Operating Budget
  - Review Financial Performance of the Service Center
  - Approve policy, procedures and practices of AW as it relates to Service Company.
5. **Service Company Budget Review/Approval** – the NJAW president and several other state regulated water utility presidents serve on the Service Company board of directors and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company’s own spending into an overall budget which must be approved by the individual operating company’s board of directors (e.g., NJAW).
6. **Major Project Review and Approval** – Major non-capital projects undertaken by the Service Company must first be reviewed by American Water’s Executive Management Team, which includes the COO of Regulated Operations. The COO of Regulated Operations, with significant input from his direct reports (including the NJAW president), has the ability to impact all new initiatives and projects before they are authorized. Major non-capital projects and initiatives for the Service Company are approved through the Business Plan. All significant business initiatives (capital or non-capital) are required to be submitted to the Operations Technology and Innovation Advisory Group for final approval.

## VI - Question 4 – Need for Service Company Services

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The Advisory Group is comprised of 17 members, the majority being senior level executives of American Water (and includes NJAW president.)

7. **Capital Investment Management (CIM)** – CIM covers capital and asset planning and is employed throughout American Water, including the Service Company. CIM provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIM ensures that:
- Capital expenditure plans are aligned with the strategic intent of the business
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans
  - The impacts of these plans are understood and affordable
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIM process was designed to optimize the effectiveness of asset investment.

8. **Accounting and Financial Reporting** – Similar to the states, the Service Company follows the same accounting and financial reporting processes. During the month, accounting transactions are recorded. At month end, the Service Company Finance team reviews all transactions. Variance analyses are performed based on month to month actual as well as actual to budget to ensure accuracy. Once completed, the service company bill is run and the actuals are “pushed down” and allocated to the states based on predetermined formulas. A conference call is scheduled before the operating companies close their books each month to discuss Service Company performance. This is based at a functional level with explanation reported for those expense variances that meet or exceed certain thresholds. At this time, the operating companies may question expenses and spending for better understanding of results. NJAW Financial Analysis and Decision Support (FADS) personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. Any mistakes or overcharges are credited on a subsequent billing.
9. **NJAW Company Budget Variance Reporting** – The “Budget/Plan Analysis,” produced monthly by each operating company, has line items for Management Fees and Shared Service Expense (i.e., IT, Call Center, etc.). In this way, Service Company budget versus actual charges as charged to the operating company can be monitored and reviewed for the month and year-to-date as compared to prior year, plan and reforecast.