

BEFORE THE
STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF
NEW JERSEY-AMERICAN WATER COMPANY, INC.
FOR APPROVAL OF INCREASED TARIFF RATES AND
CHARGES FOR WATER AND WASTEWATER SERVICE, AND
OTHER TARIFF MODIFICATIONS

BPU Docket No. WR1912_____

Direct Testimony of
Patrick L. Baryenbruch

Exhibit P-12

NEW JERSEY-AMERICAN WATER COMPANY, INC.

1 **1. Q. Please state your name and business address.**

2 A. Patrick L. Baryenbruch, 2832 Claremont Road, Raleigh, North Carolina 27608.

3 **2. Q. Please describe your educational and professional background.**

4 A. I received a Bachelors degree in Accounting from the University of Wisconsin-Oshkosh
5 in 1974 and a Masters in Business Administration degree from the University of Michigan
6 in 1979.

7 I am a Certified Public Accountant (CPA) with an active license from the state of
8 Wisconsin (license number 5343-1). I am a Certified Information Technology
9 Professional (CITP), an accreditation awarded by the American Institute of Certified
10 Public Accountants to CPA professionals who demonstrate expertise in Information
11 Technology management. I also hold a Global Information Assurance Certification
12 (GIAC) in cybersecurity from the SANS Institute. I am a member of the American
13 Institute of Certified Public Accountants and the North Carolina Association of Certified
14 Public Accountants.

15 I began my career with Arthur Andersen & Company, where I performed financial
16 audits of utilities, banks and finance companies. After three years I left to pursue an
17 M.B.A. degree. Upon graduation from business school, I worked with the consulting
18 firms of Theodore Barry & Associates and Scott, Madden & Associates.

19 During my consulting career, I have performed consulting assignments for
20 approximately 50 utilities and 10 public service commissions. I have participated as
21 project manager, lead or staff consultant for 24 commission-ordered management and
22 prudence audits of public utilities. Of these, I have been responsible for evaluating the
23 area of affiliate charges and allocation of corporate expenses in the commission-ordered
24 audits of Connecticut Light and Power, Connecticut Natural Gas, General Water

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1 Corporation (Pennsylvania Operations), Philadelphia Suburban Water Company (now
2 Aqua America) and Pacific Gas & Electric Company.

3 My firm has performed the commission-ordered audit of Southern California
4 Edison's 2002, 2003, 2004 and 2005 transactions with its non-regulated affiliate
5 companies.

6 I have performed over 100 market cost comparisons for utility clients during the
7 past 25 years. Of these, over 70 have been performed for utility client rate cases in 17
8 states where I was the company's witness on the matter of necessity and
9 reasonableness of affiliate transactions.

10 **3. Q. What are your duties and responsibilities in your current position?**

11 A. I am the president of my own consulting practice, Baryenbruch & Company, LLC, which
12 was established in 1985. In that capacity, I provide consulting services to utilities and
13 their regulators.

14 **4. Q. Please describe the purpose of your testimony in this case.**

15 A. I am presenting the results of my study that evaluated the services provided by American
16 Water Works Service Company, Inc. (Service Company) during the 12 months ended
17 June 30, 2019 (Evaluation Year) to New Jersey-American Water Company, Inc.
18 (NJAWC). The study is attached as SCHEDULE PLB-1.

19 **5. Q. What were the objectives of your study?**

20 A. This study was undertaken to answer four questions concerning the services provided
21 by the Service Company to NJAWC, each of which bears on the reasonableness of
22 those charges as incurred during the Evaluation Year. First, were the Service
23 Company's charges to NJAWC during the Evaluation Year reasonable? Second, was
24 NJAWC charged the lower of cost or market value for managerial and professional
25 services provided by the Service Company during the Evaluation Year? Third, were the

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1 Evaluation Year costs of the Service Company's customer accounts services, including
2 those of the National Call Centers, comparable to those of other utilities? Fourth, are
3 the services NJAWC receives from the Service Company necessary?

4 **6. Q. What conclusions were you able to draw concerning question number 1,**
5 **whether the Service Company charges to NJAWC were reasonable?**

6 A. The Service Company's Evaluation Year cost per NJAWC customer is reasonable
7 compared to cost per customer for other service companies. During the Evaluation
8 Year, NJAWC was charged \$59 per customer for administrative and general (A&G)-
9 related services provided by the Service Company. This compares to an average of
10 \$110 per customer for service companies reporting to the Federal Energy Regulatory
11 Commission (FERC). Twenty-one of the 24 utility service companies that filed a FERC
12 Form 60 for 2018 had a higher per-customer A&G cost than NJAWC's charges from the
13 Service Company. Service companies that file a Form 60 are those belonging to utility
14 holding companies with electric and combination electric/gas subsidiaries.

15 I do not compare service company charges to water utility affiliates because
16 there is no publicly available source of data for water service companies. Few water
17 companies have a centralized service company arrangement. Those that do are not
18 overseen by a single regulatory authority that requires standard informational filings
19 as does the FERC for the electric utility industry. If a similar source existed for water
20 service companies, I would have included them in his cost-per-customer comparison.

21 The vast majority of test year Service Company charges to NJAWC are for
22 administrative and general (A&G)-related services. It has been my experience that A&G
23 services involve similar processes across different types of utilities. Thus, it is valid and
24 appropriate to compare service company A&G costs per customer across utility types.

25

NEW JERSEY-AMERICAN WATER COMPANY, INC.

1 **7. Q. What conclusions were you able to draw concerning question number 2,**
2 **whether NJAWC was charged the lower of cost or market services provided by**
3 **the Service Company?**

4 A. I was able to draw the following conclusions:

5 (1) NJAWC was charged the lower of cost or market for managerial and professional
6 services during the Evaluation Year.

7 (2) On average, the hourly rates for outside service providers are 67% higher than
8 the Service Company's hourly rates.

9 (3) The managerial and professional services provided by the Service Company are
10 vital and could not be procured externally by NJAWC without careful supervision
11 on the part of NJAWC. If these services were contracted entirely to outside
12 providers, NJAWC would have to add at least four positions to manage activities
13 of outside firms. These positions would be necessary to ensure the quality and
14 timeliness of services provided.

15 (4) If all the managerial and professional services now provided by the Service
16 Company had been outsourced during the Evaluation Year, NJAWC and its
17 customers would have incurred nearly \$20.3 million in additional expenses. This
18 amount includes the higher cost of outside providers and the cost of four new
19 NJAWC positions needed to direct the outsourced work.

20 (5) This study's hourly rate comparison actually understates the cost advantages
21 that accrue to NJAWC from its use of the Service Company. Outside service
22 providers generally bill for every hour worked. Service Company exempt
23 personnel, on the other hand, charge a maximum of eight hours per day even
24 when they work more hours. If all overtime hours of Service Company personnel

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1 were factored into the hourly rate calculation, the Service Company would have
2 had an even greater annual dollar advantage than the \$20.3 million cited above.

3 (6) It would be difficult for NJAWC to find local service providers with the same
4 specialized water and wastewater industry expertise as that possessed by the
5 Service Company staff. Service Company personnel spend substantially all their
6 time serving operating water and wastewater companies. This specialization
7 brings with it a unique knowledge of water and wastewater utility operations and
8 regulation that is most likely unavailable from local service providers.

9 (7) Service Company fees do not include any profit markup. Only its actual cost of
10 service is being recovered from NJAWC customers.

11 **8. Q. What conclusions were you able to draw concerning question number 3,**
12 **whether the Evaluation Year costs of the Service Company's customer account**
13 **services, including those of the National Call Centers, were reasonable?**

14 A. The cost of the Service Company's customer accounts services, including those
15 provided by the National Call Centers, is below the average of the neighboring utility
16 comparison group, which consists of electric and combination electric/gas utilities that
17 file a Form 1 with the Federal Energy Regulatory Commission. Here too, I do not include
18 customer accounts services charges to other water companies because there is no
19 publicly available source of data. Customer accounts services include activities such as
20 customer contact, billing and payment processing. They are similar regardless of utility
21 type. Thus, it is valid and appropriate to compare customer accounts services costs per
22 customer across utility types.

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1 This comparison group includes regional utilities because adjacent states often
2 have similar customer service-related regulation that impact customer accounts services
3 costs.

4 During Evaluation Year, the cost of customer accounts services for NJAWC
5 customers was \$21.78, compared to the 2018 average of \$33.71 for neighboring electric
6 utilities. The highest comparison group per-customer cost was \$95.00 and the lowest
7 \$11.09.

8 **9. Q. What conclusions were you able to draw concerning question number 4,**
9 **whether the services NJAWC receives from the Service Company are**
10 **necessary?**

11 A. I was able to draw the following conclusions:

12 (1) The services that the Service Company provides are necessary and would be
13 required even if NJAWC were a stand-alone water utility.

14 (2) There is no redundancy or overlap in the services provided by the Service
15 Company to NJAWC.

16 **10. Q. Does this complete your testimony?**

17 A. Yes.

**Market to Cost Comparison of Service Company Charges to
New Jersey-American Water Company, Inc.**

12 Months Ended June 30, 2019

November 2019



**New Jersey-American Water Company, Inc.
Market to Cost Comparison of Service Company Charges
12 Months Ended June 30, 2019**

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Purpose of This Study

This Market to Cost Comparison of Service Company Charges to New Jersey American Water Company, Inc. study (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, Inc. (NJAWC):

1. Were the Service Company's charges to NJAWC during the 12 months ending June 30, 2019 (Evaluation Year), reasonable?
2. Was NJAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during the Evaluation Year?
3. Were Evaluation Year 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 NJAWC receives from the Service Company necessary?

Study Results

Concerning question 1, the following conclusion was reached:

- The Service Company's Evaluation Year cost per NJAWC customer is reasonable compared to costs per customer for electric and combination electric/gas service companies. During the Evaluation Year, NJAWC was charged \$59 per customer for administrative and general (A&G)-related services provided by the Service Company. This compares to an average of \$110 per customer for service companies reporting to the Federal Energy Regulatory Commission (FERC). Twenty-one of the 24 utility service companies that filed a FERC Form 60 for 2018 had higher per-customer A&G costs than NJAWC's charges from the Service Company.

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

- NJAWC was charged the lower of cost or market for managerial and professional services during the Evaluation Year.
- On average, the hourly rates for outside service providers are 67% 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 NJAWC without careful supervision on the part of NJAWC. If these services were contracted entirely to outside providers, NJAWC would have to add at least four 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 Evaluation Year, NJAWC and its customers would have incurred nearly \$20.3 million in additional expenses. This amount includes the higher cost of outside providers and the cost of four new NJAWC positions needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to NJAWC from its use of the Service Company. Outside service providers generally bill



for every hour worked. Service Company exempt personnel, on the other hand, charge a maximum of eight 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 \$20.3 million cited above.

- It would be difficult for NJAWC 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 NJAWC customers.

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 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 NJAWC. During the Evaluation Year, the cost of customer accounts services for NJAWC customers was \$21.78, compared to the 2018 average of \$33.71 for neighboring electric utilities. The highest comparison group per-customer cost was \$95.00 and the lowest \$11.09.

Concerning question 4, the following conclusions were drawn:

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

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 customers:

- **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 organization. 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 manage 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 Enterprise-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 align operating utility operations because their implementation is supported by the Service Company.
- **Improved Support and Guidance** – American Water's Service Company provides another dimension of management and financial support and guidance 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 NJAWC, 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

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

- One Water Street – In 2018, Service Company employees located in three locations in southern New Jersey were relocated to a new office building – One Water Street -- located in Camden, New Jersey. Service Company employees at One Water Street provide corporate governance and service functions, including executive management, finance, accounting, audit, tax, regulatory, external affairs, engineering, supply chain, human resources and benefits services. One Water Street also includes American Water's main Technology & Innovation (T&I) Services center for employees, provides software delivery and enhancements for SAP and non-SAP (legacy) systems and 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. Further, One Water Street supports mission-critical systems such as SCADA as well as emerging technologies such as geographic information systems and mobility. It provides technical expertise in project governance, release management while ensuring compliance with all governmental regulations.
- 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.
- Technology & Innovation Services Center –The T&I Center, supports the technology infrastructure required to run corporate and operating company business applications and communications systems for American Water's operating companies. American Water's primary data center is an IBM facility in Sterling Forrest, New York.
- 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.
- Divisional 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.

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:

II – Background

- **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 (WBS)) 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. One Water Street (OWS), which owns the Camden headquarters, is providing furniture, fixtures and office-related equipment for the first 7 years of the lease with the Service Company.
- **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 WBS.

Service Company Billing and Clearing

Service Company has developed a billing system that 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) 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



II – Background

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

Service Company Evaluation Year Charges

During the Evaluation Year, the Service Company billed NJAWC a total of approximately \$61.9 million, as shown in the table below. These charges were subjected to a market to cost comparison.

	12 Months Ended June 30, 2019
Support Services - O&M	\$ 43,604,430
Support Services - Capital	\$ 18,321,647
Total Service Company Charges	\$ 61,926,077

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, engineering and technology innovation.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total Evaluation Year Service Company dollar and hour charges break down between management and professional services and customer account services as follows:

	12 Months Ended June 30, 2019	
	Amount	Hours
Management and Professional Services	\$ 54,778,885	225,652
Customer Account Services	\$ 7,147,192	138,651
Total Service Company Charges	\$ 61,926,077	364,303

Service Company Cost Comparison Approach

This study's first question—whether the Service Company Evaluation Year charges were reasonable—was determined by comparing NJAWC'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 Evaluation Year, 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 NJAWC during the Evaluation Year. Outside providers' billing rates came from surveys or other information from professionals who could perform the services now provided by the Service Company.

The third question—whether Service Company's Evaluation Year customer account services charges, including National Call Center costs, were comparable to other utilities—was addressed by comparing NJAWC'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 collecting and processing customer payments. Electric utility costs are available from the FERC Form 1; thus, there is appropriate data transparency. The selection of



III – Service Company Cost Comparison Approach

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 NJAWC and determining if these services would be required if NJAWC were a stand-alone utility.

Methodology

Utility service companies deliver a variety of services. Some may 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 the case because considerable economies of scale derive from centralizing the management of corporate A&G services such as finance, human resources and technology and innovation. Because A&G-related services are delivered by all utility service companies, this study uses A&G charges per customer as the metric by which to test the reasonableness of affiliate charges.

NJAWC’s Service Company A&G Cost per Customer

During the Evaluation Year, NJAWC was charged \$59 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 June 30, 2019
Total Service Company Charges	\$ 61,926,077
Less: Capital Charges	\$ (18,321,647)
Less: Non-A&G Charges	
Engineering	\$ (546,500)
Operations	\$ (1,200,093)
Water Quality	\$ (793,456)
Net A&G Service Company Charges	\$ 41,064,380
NJAWC Customer Count	696,302
NJAWC A&G SC Charges per Customer	\$ 59

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. The Form 60 is designed to collect financial information from service companies within a holding company structure.

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 2018, 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 NJAWC. 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 whose service companies filed a Form 60 for 2018 are calculated in Table 1 (page 11).

Table 2 (page 12) shows NJAWC's Evaluation Year Service Company cost per customer of \$59 to be lower than the average of \$110 per customer for the comparison group service companies. Twenty-one of the 24 comparison group service companies had higher per-customer A&G costs than NJAWC's charges from the Service Company. Based on this result, it is possible to conclude that the Service Company's charges to NJAWC were reasonable.

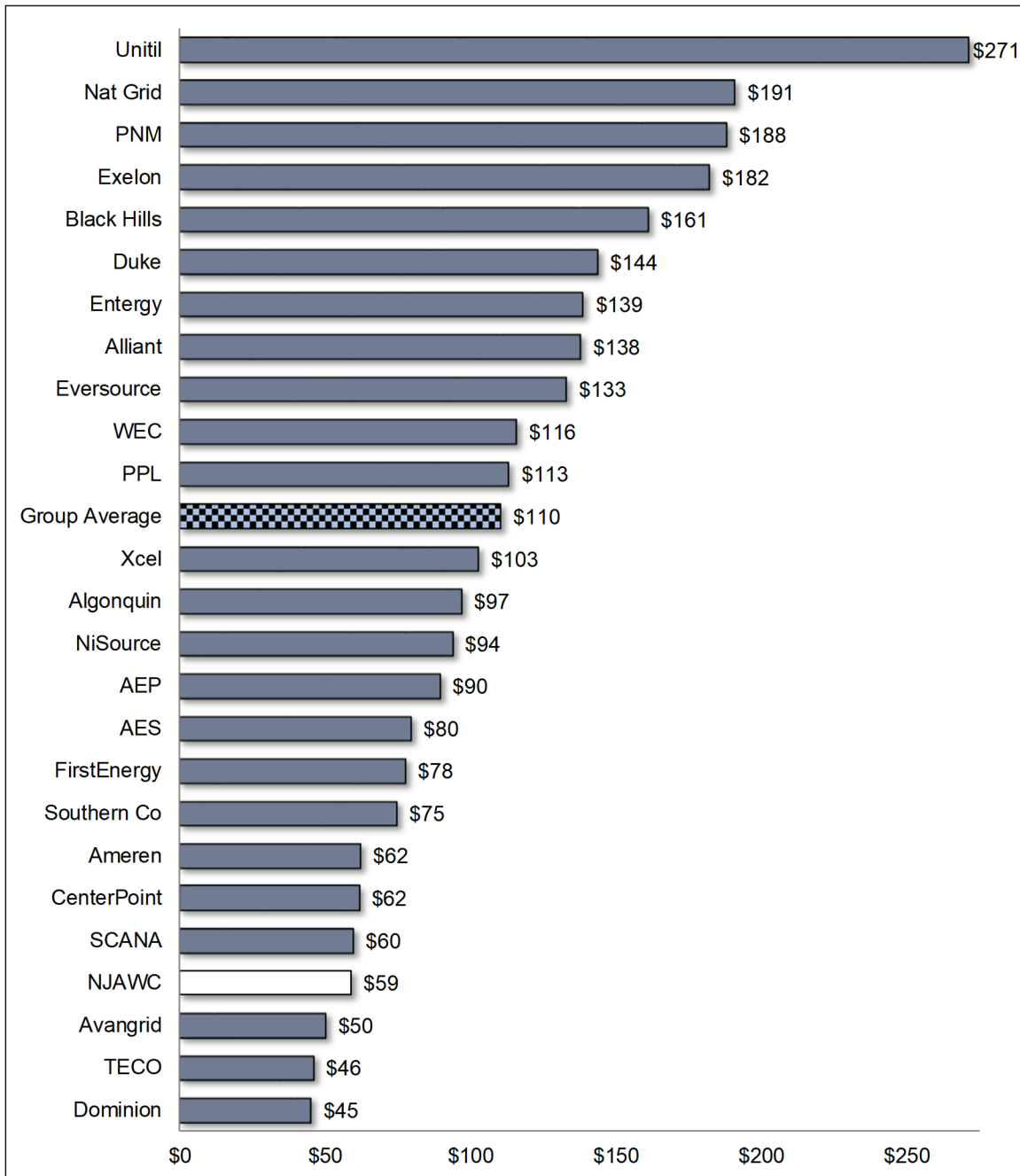
Table 1

New Jersey-American Water Company, Inc.
Calculation of 2018 Service Company A&G Expenses Per Customer

Utility Company	Retail Service Company A&G Expenses	Regulated Retail Customers	Cost per Customer
AEP	\$ 484,049,781	5,400,000	\$ 90
AES	\$ 60,595,090	760,363	\$ 80
Algonquin	\$ 58,060,459	599,000	\$ 97
Alliant	\$ 190,233,088	1,380,688	\$ 138
Ameren	\$ 205,559,876	3,300,000	\$ 62
Avangrid	\$ 160,829,920	3,200,000	\$ 50
Black Hills	\$ 193,265,896	1,200,000	\$ 161
CenterPoint	\$ 365,837,151	5,923,429	\$ 62
Dominion	\$ 225,914,181	5,000,000	\$ 45
Duke	\$ 1,336,101,135	9,300,000	\$ 144
Entergy	\$ 430,086,378	3,100,000	\$ 139
Eversource	\$ 484,549,188	3,643,000	\$ 133
Exelon	\$ 1,821,608,837	10,000,000	\$ 182
FirstEnergy	\$ 465,651,717	6,000,000	\$ 78
Nat Grid	\$ 1,316,939,956	6,900,000	\$ 191
NiSource	\$ 365,027,769	3,886,000	\$ 94
PNM	\$ 99,240,311	528,000	\$ 188
PPL	\$ 305,600,670	2,700,000	\$ 113
SCANA	\$ 134,903,853	2,258,300	\$ 60
Southern Co	\$ 672,479,493	9,000,000	\$ 75
TECO	\$ 76,917,009	1,670,000	\$ 46
Unitil	\$ 51,070,829	188,300	\$ 271
WEC	\$ 356,626,220	3,081,300	\$ 116
Xcel	\$ 575,049,933	5,600,000	\$ 103
Total	\$ 10,436,198,740	94,618,380	\$ 110

Source: FERC Form 60; Baryenbruch & Company, LLC, analysis

New Jersey-American Water Company, Inc.
Comparison of Service Company A&G Expenses Per Customer



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 NJAWC during the Evaluation Year. 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 to NJAWC during the Evaluation Year, 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

Table 3 (page 15) details the assignment of Evaluation Year management and professional Service Company charges by outsider provider category. Table 4 (page 16) shows the same assignment for Service Company management and professional hours charged to NJAWC during the Evaluation Year.

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 non-labor Service Company charges for the Evaluation Year:

- Contract Services – Evaluation Year Service Company charges to NJAWC include expenses associated with the use of outside professional firms to perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These



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

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 Evaluation Year Service Company charges to NJAWC 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.

Table 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 Table 3 and 4 and the excludable items shown in Table 5, the Service Company’s equivalent costs per hour for the Evaluation Year are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	T&I Professional	Professional Engineer	Total
Total management, professional & technical services charges	\$ 3,260,470	\$ 14,458,340	\$ 8,527,751	\$ 24,865,437	\$ 3,666,886	\$ 54,778,885
Less: Exclusions						
Contract services	\$ 437,332	\$ 1,878,823	\$ 942,950	\$ 13,358,852	\$ (156,200)	\$ 16,461,757
Travel expenses	\$ 76,801	\$ 347,165	\$ 156,320	\$ 183,898	\$ 115,150	\$ 879,334
IT infrastructure expenses	\$ -	\$ 3,419,330	\$ -	\$ 3,441,059	\$ -	\$ 6,860,389
Non-service related expenses	\$ 290,890	\$ 913,815	\$ (369,149)	\$ 331,336	\$ 333,166	\$ 1,500,058
Total Exclusions	\$ 805,023	\$ 6,559,132	\$ 730,121	\$ 17,315,145	\$ 292,116	\$ 25,701,538
Net Service-Related Charges (A)	\$ 2,455,447	\$ 7,899,208	\$ 7,797,630	\$ 7,550,292	\$ 3,374,770	\$ 29,077,347
Total Hours (B)	8,915	48,671	72,093	63,099	32,875	225,652
Average Hourly Rate (A / B)	\$ 275	\$ 162	\$ 108	\$ 120	\$ 103	

Table 3

New Jersey-American Water Company, Inc.
Evaluation Year Service Company Charges by Location and Function

		12 Months Ended June 30, 2019 Service Company Charges					
Location	Function	Attorney	Management Consultant	Certified Public Accountant	T&I Professional	Professional Engineer	Total
Belleville Lab	Water Quality	\$ -	\$ -	\$ -	\$ -	\$ 793,456	\$ 793,456
Call Centers	Human Resources	\$ -	\$ 80,542	\$ -	\$ -	\$ -	\$ 80,542
Corporate	Accounting	\$ -	\$ -	\$ 2,833,440	\$ -	\$ -	\$ 2,833,440
	Administration	\$ -	\$ 5,589,004	\$ -	\$ -	\$ -	\$ 5,589,004
	Audit	\$ -	\$ -	\$ 536,184	\$ -	\$ -	\$ 536,184
	Business Development	\$ -	\$ 403,505	\$ -	\$ -	\$ -	\$ 403,505
	Communications	\$ -	\$ 915,598	\$ -	\$ -	\$ -	\$ 915,598
	Engineering	\$ -	\$ -	\$ -	\$ -	\$ 2,866,748	\$ 2,866,748
	External Affairs	\$ -	\$ 316,324	\$ -	\$ -	\$ -	\$ 316,324
	Finance	\$ -	\$ -	\$ 2,712,959	\$ -	\$ -	\$ 2,712,959
	Human Resources	\$ -	\$ 2,973,999	\$ -	\$ -	\$ -	\$ 2,973,999
	Information Technology	\$ -	\$ -	\$ -	\$ 1,012,402	\$ -	\$ 1,012,402
	Legal	\$ 1,993,243	\$ -	\$ -	\$ -	\$ -	\$ 1,993,243
	Operations	\$ -	\$ 1,280,224	\$ -	\$ -	\$ -	\$ 1,280,224
	Rates & Regulatory	\$ -	\$ -	\$ 1,496,604	\$ -	\$ -	\$ 1,496,604
	Risk Management	\$ -	\$ -	\$ 37,895	\$ -	\$ -	\$ 37,895
		Supply Chain	\$ -	\$ 289,417	\$ -	\$ -	\$ -
Regional Offices	Administration	\$ -	\$ 1,555,166	\$ -	\$ -	\$ -	\$ 1,555,166
	Business Development	\$ -	\$ 838,187	\$ -	\$ -	\$ -	\$ 838,187
	Engineering	\$ -	\$ -	\$ -	\$ -	\$ 6,681	\$ 6,681
	External Affairs	\$ -	\$ 210,673	\$ -	\$ -	\$ -	\$ 210,673
	Finance	\$ -	\$ -	\$ 474,884	\$ -	\$ -	\$ 474,884
	Human Resources	\$ -	\$ 1,934	\$ -	\$ -	\$ -	\$ 1,934
	Legal	\$ 1,267,227	\$ -	\$ -	\$ -	\$ -	\$ 1,267,227
	Operations	\$ -	\$ 3,767	\$ -	\$ -	\$ -	\$ 3,767
	Rates & Regulatory	\$ -	\$ -	\$ 435,784	\$ -	\$ -	\$ 435,784
Innov & Technology	Information Technology	\$ -	\$ -	\$ -	\$ 23,853,035	\$ -	\$ 23,853,035
Total Dollars Charged		\$ 3,260,470	\$ 14,458,340	\$ 8,527,751	\$ 24,865,437	\$ 3,666,886	\$ 54,778,885

Table 4

New Jersey-American Water Company, Inc.
Evaluation Year Service Company Hours by Location and Function

		12 Months Ended June 30, 2019 Service Company Hours					
Location	Function	Attorney	Management Consultant	Certified Public Accountant	T&I Professional	Professional Engineer	Total
Belleville Lab	Water Quality					7,457	7,457
Call Centers	Human Resources		802				802
Corporate	Accounting			27,864			27,864
	Administration		2,071				2,071
	Audit			3,513			3,513
	Business Development		1,284				1,284
	Communications		4,763				4,763
	Engineering					25,370	25,370
	External Affairs		446				446
	Finance			16,724			16,724
	Human Resources			20,719			20,719
	Information Technology					8,534	8,534
	Legal		4,573				4,573
	Operations			3,323			3,323
	Rates & Regulatory			2,348			2,348
	Risk Management						-
Supply Chain				16,799			16,799
Regional Offices	Administration		5,527				5,527
	Business Development		6,232				6,232
	Engineering					48	48
	External Affairs		1,148				1,148
	Finance			4,521			4,521
	Human Resources						-
	Legal		4,342				4,342
	Operations			8			8
	Rates & Regulatory			2,671			2,671
Innov & Technology	Information Technology				54,565		54,565
Total Hours Charged		8,915	48,671	72,093	63,099	32,875	225,652

Table 5

New Jersey-American Water Company, Inc.
Evaluation Year Service Company Charges Excludable from the Hourly Rate Calculation

Charges By Function	Exclusions From Hourly Rate Calculation					Outside Service Provider Category
	Contract Services	Travel Expenses	Enterprise IT Expenses	Non-Services-Related Items	Total	
Accounting	\$ 646,437	\$ 41,023		\$ (388,879)	\$ 298,580	Certified Public Accountant
Administration	\$ 1,068,026	\$ 143,843	\$ 3,419,330	\$ 707,987	\$ 5,339,186	Management Consultant
Audit	\$ 182,135	\$ 4,517		\$ 235	\$ 186,887	Certified Public Accountant
Business Development	\$ 51,315	\$ 33,206		\$ 90,878	\$ 175,399	Management Consultant
Communications	\$ 170,110	\$ 16,888		\$ 34,881	\$ 221,879	Management Consultant
Engineering	\$ 30,921	\$ 56,693		\$ 7,879	\$ 95,493	Professional Engineer
External Affairs	\$ 27,866	\$ 47,764		\$ 1,276	\$ 76,906	Management Consultant
Finance	\$ 93,496	\$ 51,223		\$ 25,955	\$ 170,674	Certified Public Accountant
Human Resources	\$ 553,423	\$ 96,097		\$ 74,382	\$ 723,903	Management Consultant
Information Technology	\$ 13,358,852	\$ 183,898	\$ 3,441,059	\$ 331,336	\$ 17,315,145	IT Professional
Legal	\$ 437,332	\$ 76,801		\$ 290,890	\$ 805,023	Attorney
Operations	\$ 66,709	\$ 51,810		\$ 4,856	\$ 123,374	Professional Engineer
Rates & Regulatory	\$ 4,170	\$ 12,894		\$ (7,299)	\$ 9,765	Certified Public Accountant
Risk Management	\$ 8,084	\$ 9,367		\$ 4,409	\$ 21,860	Management Consultant
Supply Chain	\$ 16,712	\$ 46,663		\$ 839	\$ 64,214	Certified Public Accountant
Water Quality	\$ (253,830)	\$ 6,648		\$ 320,432	\$ 73,249	Professional Engineer
Total	\$ 16,461,757	\$ 879,334	\$ 6,860,389	\$ 1,500,058	\$ 25,701,538	

Recap By Outside Provider	Exclusions From Hourly Rate Calculation				
	Contract Services	Travel Expenses	Enterprise IT Expenses	Non-Services-Related Items	Total
Attorney	\$ 437,332	\$ 76,801	\$ -	\$ 290,890	\$ 805,023
Management Consultant	\$ 1,878,823	\$ 347,165	\$ 3,419,330	\$ 913,815	\$ 6,559,132
Certified Public Accountant	\$ 942,950	\$ 156,320	\$ -	\$ (369,149)	\$ 730,121
IT Professional	\$ 13,358,852	\$ 183,898	\$ 3,441,059	\$ 331,336	\$ 17,315,145
Professional Engineer	\$ (156,200)	\$ 115,150	\$ -	\$ 333,166	\$ 292,116
Total	\$ 16,461,757	\$ 879,334	\$ 6,860,389	\$ 1,500,058	\$ 25,701,538

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 2017 billing rate survey from National Law Journal. As shown in Table 6 (pages 20-22), data from this survey has been adjusted for cost-of-living differences between each law firm’s location and Camden, New Jersey. The National Law Review billing survey hourly rates data is for 2017. The calculated average 2017 rate was escalated to December 31, 2018—the midpoint of the Evaluation Year.

Management Consultants

The cost per hour for management consultants was developed from the 2018 annual survey information from ALM Intelligence, a research firm that follows the management consulting industry. The survey includes rates that were in effect during 2018 for firms throughout the United States. 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 Table 7 (page 23), 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.

Certified Public Accountants

The average hourly rate for New Jersey CPAs was developed from a 2018 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 Table 8 (page 24), 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 2017. The calculated average rate was escalated to December 31, 2018—the midpoint of the Evaluation Year.

Technology and Innovation Professionals

The average hourly rate for technology and innovation consultants and contractors was developed from two sources: Service Company for IT contractor rates and ALM Intelligence for information technology consultants. As shown in Table 9 (page 25), that data was compiled and a weighted average was calculated based on a percent of time that is typically applied to a T&I consulting assignment based on Baryenbruch & Company's experience.

Professional Engineers

The Company provided hourly rate information for outside engineering firms that provided NJAWC with their rate schedules. As presented in Table 10 (page 26), 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, Inc.
Estimated Billing Rates for New Jersey Attorneys

City	2017 Billing Rates (Note A)					Cost of Living (COL) Adjustment (Note B)			
	Average Billing Rate		Weighted Average Rate Calculation			COL Indices			(A x B) Adjusted Rate
	Partner	Associate	0.25	0.75	(A) Weighted Average	Law Firm Location	Camden, NJ	(B) COL Adjustment	
Albany, NY	\$ 350	\$ 180	\$ 88	\$ 135	\$ 223	110.9	121.2	109%	\$ 244
Albuquerque, NM	\$ 475	\$ 238	\$ 119	\$ 179	\$ 298	94.3	121.2	128%	\$ 383
Alhambra, CA	\$ 475	\$ 425	\$ 119	\$ 319	\$ 438	131.0	121.2	93%	\$ 405
Amenia, NY	\$ 300	\$ 250	\$ 75	\$ 188	\$ 263	110.9	121.2	109%	\$ 287
Arlington, TX	\$ 385	\$ 195	\$ 96	\$ 146	\$ 242	95.7	121.2	127%	\$ 306
Astoria, NY	\$ 425	\$ 325	\$ 106	\$ 244	\$ 350	151.4	121.2	80%	\$ 280
Atlanta, GA	\$ 521	\$ 371	\$ 130	\$ 278	\$ 408	93.5	121.2	130%	\$ 529
Atlantic Beach, FL	\$ 295	\$ 248	\$ 74	\$ 186	\$ 260	95.5	121.2	127%	\$ 330
Austin, TX	\$ 445	\$ 400	\$ 111	\$ 300	\$ 411	92.5	121.2	131%	\$ 539
Baltimore, MD	\$ 432	\$ 295	\$ 108	\$ 221	\$ 329	111.3	121.2	109%	\$ 358
Baton Rouge, LA	\$ 388	\$ 350	\$ 97	\$ 263	\$ 360	91.7	121.2	132%	\$ 476
Beverly Hills, CA	\$ 510	\$ 373	\$ 128	\$ 280	\$ 408	131.0	121.2	93%	\$ 377
Bloomfield Hills, MI	\$ 373	\$ 275	\$ 93	\$ 206	\$ 299	96.1	121.2	126%	\$ 377
Boca Raton, FL	\$ 438	\$ 325	\$ 110	\$ 244	\$ 354	109.5	121.2	111%	\$ 392
Boston, MA	\$ 1,075	\$ 515	\$ 269	\$ 386	\$ 655	140.1	121.2	87%	\$ 567
Brooklyn, NY	\$ 625	\$ 575	\$ 156	\$ 431	\$ 587	175.6	121.2	69%	\$ 405
Buffalo, NY	\$ 288	\$ 175	\$ 72	\$ 131	\$ 203	96.2	121.2	126%	\$ 256
Calabasas, CA	\$ 450	\$ 250	\$ 113	\$ 188	\$ 301	131.0	121.2	93%	\$ 278
Camp Hill, PA	\$ 250	\$ 150	\$ 63	\$ 113	\$ 176	98.9	121.2	123%	\$ 216
Carrollton, GA	\$ 325	\$ 270	\$ 81	\$ 203	\$ 284	94.7	121.2	128%	\$ 363
Cary, NC	\$ 300	\$ 290	\$ 75	\$ 218	\$ 293	94.6	121.2	128%	\$ 375
Cerritos, CA	\$ 400	\$ 188	\$ 100	\$ 141	\$ 241	131.0	121.2	93%	\$ 223
Chapel Hill, NC	\$ 325	\$ 200	\$ 81	\$ 150	\$ 231	110.9	121.2	109%	\$ 252
Charlotte, NC	\$ 435	\$ 303	\$ 109	\$ 227	\$ 336	96.1	121.2	126%	\$ 424
Cherry Hill, NJ	\$ 350	\$ 275	\$ 88	\$ 206	\$ 294	121.2	121.2	100%	\$ 294
Cherry Hill, PA	\$ 425	\$ 350	\$ 106	\$ 263	\$ 369	92.2	121.2	131%	\$ 485
Chicago, IL	\$ 578	\$ 407	\$ 145	\$ 305	\$ 450	117.4	121.2	103%	\$ 464
Claremont, CA	\$ 270	\$ 250	\$ 68	\$ 188	\$ 256	112.0	121.2	108%	\$ 277
Columbia, MO	\$ 250	\$ 250	\$ 63	\$ 188	\$ 251	96.9	121.2	125%	\$ 314
Corpus Christi, TX	\$ 250	\$ 150	\$ 63	\$ 113	\$ 176	91.9	121.2	132%	\$ 232
Dallas, TX	\$ 536	\$ 312	\$ 134	\$ 234	\$ 368	95.7	121.2	127%	\$ 466
Decatur, GA	\$ 350	\$ 350	\$ 88	\$ 263	\$ 351	93.5	121.2	130%	\$ 455
Denver, CO	\$ 449	\$ 308	\$ 112	\$ 231	\$ 343	104.0	121.2	117%	\$ 400
East Meadow, NY	\$ 425	\$ 413	\$ 106	\$ 310	\$ 416	129.2	121.2	94%	\$ 390
East Orange, NJ	\$ 400	\$ 375	\$ 100	\$ 281	\$ 381	128.4	121.2	94%	\$ 360
El Paso, TX	\$ 350	\$ 300	\$ 88	\$ 225	\$ 313	90.8	121.2	133%	\$ 418
Encino, CA	\$ 450	\$ 400	\$ 113	\$ 300	\$ 413	131.0	121.2	93%	\$ 382
Englewood, NJ	\$ 463	\$ 325	\$ 116	\$ 244	\$ 360	133.0	121.2	91%	\$ 328
Escondido, CA	\$ 400	\$ 300	\$ 100	\$ 225	\$ 325	129.2	121.2	94%	\$ 305
Fair Oaks, CA	\$ 350	\$ 325	\$ 88	\$ 244	\$ 332	109.8	121.2	110%	\$ 366
Fort Lauderdale, FL	\$ 400	\$ 343	\$ 100	\$ 257	\$ 357	109.5	121.2	111%	\$ 395
Fort Worth, TX	\$ 492	\$ 355	\$ 123	\$ 266	\$ 389	100.1	121.2	121%	\$ 471
Fountain Valley, CA	\$ 350	\$ 200	\$ 88	\$ 150	\$ 238	140.7	121.2	86%	\$ 205
Franklin, TN	\$ 395	\$ 310	\$ 99	\$ 233	\$ 332	86.3	121.2	140%	\$ 466
Frederick, MD	\$ 300	\$ 300	\$ 75	\$ 225	\$ 300	127.4	121.2	95%	\$ 285
Freehold, NJ	\$ 500	\$ 500	\$ 125	\$ 375	\$ 500	122.2	121.2	99%	\$ 496
Frisco, TX	\$ 400	\$ 300	\$ 100	\$ 225	\$ 325	90.2	121.2	134%	\$ 437
Glendale, CA	\$ 600	\$ 450	\$ 150	\$ 338	\$ 488	131.0	121.2	93%	\$ 451
Granada Hills, CA	\$ 200	\$ 200	\$ 50	\$ 150	\$ 200	131.0	121.2	93%	\$ 185
Grand Rapids, MI	\$ 406	\$ 295	\$ 102	\$ 221	\$ 323	92.5	121.2	131%	\$ 423
Greenbelt, MD	\$ 467	\$ 347	\$ 117	\$ 260	\$ 377	127.4	121.2	95%	\$ 359

New Jersey-American Water Company, Inc.
Estimated Billing Rates for New Jersey Attorneys

City	2017 Billing Rates (Note A)					Cost of Living (COL) Adjustment (Note B)			
	Average Billing Rate		Weighted Average Rate Calculation			COL Indices			(A x B) Adjusted Rate
	Partner	Associate	0.25	0.75	(A) Weighted Average	Law Firm Location	Camden, NJ	(B) COL Adjustment	
Greensburg, PA	\$ 400	\$ 195	\$ 100	\$ 146	\$ 246	92.2	121.2	131%	\$ 323
Grosse Pointe Woods, MI	\$ 375	\$ 250	\$ 94	\$ 188	\$ 282	96.1	121.2	126%	\$ 355
Hackensack, NJ	\$ 658	\$ 305	\$ 165	\$ 229	\$ 394	133.0	121.2	91%	\$ 359
Harrisburg, PA	\$ 292	\$ 225	\$ 73	\$ 169	\$ 242	98.9	121.2	123%	\$ 297
Harrisonburg, VA	\$ 300	\$ 250	\$ 75	\$ 188	\$ 263	97.7	121.2	124%	\$ 326
Hawthorne, NJ	\$ 425	\$ 400	\$ 106	\$ 300	\$ 406	133.0	121.2	91%	\$ 370
Houston, TX	\$ 522	\$ 345	\$ 131	\$ 259	\$ 390	99.0	121.2	122%	\$ 478
Huntingdon Valley, PA	\$ 220	\$ 125	\$ 55	\$ 94	\$ 149	121.2	121.2	100%	\$ 149
Indianapolis, IN	\$ 452	\$ 337	\$ 113	\$ 253	\$ 366	91.1	121.2	133%	\$ 487
Irvine, CA	\$ 402	\$ 325	\$ 101	\$ 244	\$ 345	140.7	121.2	86%	\$ 297
Jacksonville, FL	\$ 350	\$ 250	\$ 88	\$ 188	\$ 276	95.5	121.2	127%	\$ 350
Johnstown, PA	\$ 250	\$ 250	\$ 63	\$ 188	\$ 251	92.2	121.2	131%	\$ 330
Kansas City, MO	\$ 407	\$ 305	\$ 102	\$ 229	\$ 331	98.0	121.2	124%	\$ 409
Knoxville, TN	\$ 269	\$ 225	\$ 67	\$ 169	\$ 236	88.5	121.2	137%	\$ 323
LaGrange, IL	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	97.4	121.2	124%	\$ 498
Las Vegas, NV	\$ 383	\$ 338	\$ 96	\$ 253	\$ 349	102.7	121.2	118%	\$ 412
Long Beach, CA	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	131.0	121.2	93%	\$ 370
Los Angeles, CA	\$ 515	\$ 404	\$ 129	\$ 303	\$ 432	131.0	121.2	93%	\$ 400
Mamaroneck, NY	\$ 495	\$ 375	\$ 124	\$ 281	\$ 405	151.4	121.2	80%	\$ 324
Manasquan, NJ	\$ 400	\$ 250	\$ 100	\$ 188	\$ 288	122.2	121.2	99%	\$ 286
Maple Shade, NJ	\$ 400	\$ 275	\$ 100	\$ 206	\$ 306	121.2	121.2	100%	\$ 306
McAllen, TX	\$ 250	\$ 213	\$ 63	\$ 159	\$ 222	86.3	121.2	141%	\$ 312
Metairie, LA	\$ 350	\$ 180	\$ 88	\$ 135	\$ 223	98.2	121.2	123%	\$ 275
Miami, FL	\$ 338	\$ 300	\$ 84	\$ 225	\$ 309	107.2	121.2	113%	\$ 349
Middletown, NY	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	110.9	121.2	109%	\$ 437
Minden, NV	\$ 363	\$ 200	\$ 91	\$ 150	\$ 241	90.1	121.2	134%	\$ 324
Minneapolis, MN	\$ 680	\$ 463	\$ 170	\$ 347	\$ 517	110.3	121.2	110%	\$ 568
Murrieta, CA	\$ 250	\$ 175	\$ 63	\$ 131	\$ 194	112.0	121.2	108%	\$ 210
Nashville, TN	\$ 413	\$ 338	\$ 103	\$ 253	\$ 356	86.3	121.2	140%	\$ 500
New City, NY	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	151.4	121.2	80%	\$ 320
New Orleans, LA	\$ 388	\$ 235	\$ 97	\$ 176	\$ 273	98.2	121.2	123%	\$ 337
New York, NY	\$ 748	\$ 501	\$ 187	\$ 376	\$ 563	221.3	121.2	55%	\$ 308
Newark, NJ	\$ 735	\$ 495	\$ 184	\$ 371	\$ 555	128.4	121.2	94%	\$ 524
Newport Beach, CA	\$ 595	\$ 425	\$ 149	\$ 319	\$ 468	131.0	121.2	93%	\$ 433
Newton, MA	\$ 350	\$ 300	\$ 88	\$ 225	\$ 313	140.1	121.2	87%	\$ 271
North Andover, MA	\$ 400	\$ 275	\$ 100	\$ 206	\$ 306	140.1	121.2	87%	\$ 265
North Bergen, NJ	\$ 400	\$ 300	\$ 100	\$ 225	\$ 325	133.0	121.2	91%	\$ 296
Northbrook, IL	\$ 425	\$ 363	\$ 106	\$ 272	\$ 378	117.4	121.2	103%	\$ 390
Oakland, CA	\$ 575	\$ 575	\$ 144	\$ 431	\$ 575	134.9	121.2	90%	\$ 517
Okemos, MI	\$ 300	\$ 205	\$ 75	\$ 154	\$ 229	87.9	121.2	138%	\$ 316
Ontario, CA	\$ 350	\$ 350	\$ 88	\$ 263	\$ 351	112.0	121.2	108%	\$ 380
Orlando, FL	\$ 400	\$ 400	\$ 100	\$ 300	\$ 400	95.9	121.2	126%	\$ 506
Palo Alto, CA	\$ 1,100	\$ 735	\$ 275	\$ 551	\$ 826	148.8	121.2	81%	\$ 673
Philadelphia, PA	\$ 653	\$ 406	\$ 163	\$ 305	\$ 468	121.2	121.2	100%	\$ 468
Phoenix, AZ	\$ 462	\$ 276	\$ 115	\$ 207	\$ 322	97.3	121.2	125%	\$ 401
Pittsburgh, PA	\$ 375	\$ 226	\$ 94	\$ 170	\$ 264	92.2	121.2	131%	\$ 347
Plano, TX	\$ 400	\$ 163	\$ 100	\$ 122	\$ 222	96.6	121.2	126%	\$ 279
Portland, OR	\$ 375	\$ 345	\$ 94	\$ 259	\$ 353	119.1	121.2	102%	\$ 359
Red Bank, NJ	\$ 425	\$ 250	\$ 106	\$ 188	\$ 294	122.2	121.2	99%	\$ 292
Richmond, VA	\$ 522	\$ 333	\$ 130	\$ 250	\$ 380	99.7	121.2	122%	\$ 462
Ridgeland, MS	\$ 375	\$ 225	\$ 94	\$ 169	\$ 263	89.0	121.2	136%	\$ 358

New Jersey-American Water Company, Inc.
Estimated Billing Rates for New Jersey Attorneys

City	2017 Billing Rates (Note A)					Cost of Living (COL) Adjustment (Note B)			(A x B) Adjusted Rate	
	Average Billing Rate		Weighted Average Rate Calculation			COL Indices				
	Partner	Associate	0.25	0.75	(A) Weighted Average	Law Firm	Camden,	(B)		
						Location	NJ	COL Adjustment		
Roanoke, VA	\$ 365	\$ 216	\$ 91	\$ 162	\$ 253	92.0	121.2	132%	\$ 333	
Royal Oak, MI	\$ 350	\$ 300	\$ 88	\$ 225	\$ 313	96.1	121.2	126%	\$ 395	
Sacramento, CA	\$ 400	\$ 250	\$ 100	\$ 188	\$ 288	109.8	121.2	110%	\$ 318	
San Antonio, TX	\$ 315	\$ 271	\$ 79	\$ 203	\$ 282	87.6	121.2	138%	\$ 390	
San Diego, CA	\$ 475	\$ 362	\$ 119	\$ 271	\$ 390	129.2	121.2	94%	\$ 366	
San Francisco, CA	\$ 443	\$ 377	\$ 111	\$ 282	\$ 393	159.9	121.2	76%	\$ 298	
San Jose, CA	\$ 438	\$ 350	\$ 109	\$ 263	\$ 372	148.8	121.2	81%	\$ 303	
San Mateo, CA	\$ 495	\$ 395	\$ 124	\$ 296	\$ 420	159.9	121.2	76%	\$ 318	
Santa Ana, CA	\$ 350	\$ 350	\$ 88	\$ 263	\$ 351	140.7	121.2	86%	\$ 302	
Santa Barbara, CA	\$ 438	\$ 300	\$ 110	\$ 225	\$ 335	131.0	121.2	93%	\$ 310	
Santa Clara, CA	\$ 475	\$ 400	\$ 119	\$ 300	\$ 419	148.8	121.2	81%	\$ 341	
Santa Clarita, CA	\$ 438	\$ 300	\$ 110	\$ 225	\$ 335	112.0	121.2	108%	\$ 362	
Santa Monica, CA	\$ 575	\$ 350	\$ 144	\$ 263	\$ 407	131.0	121.2	93%	\$ 376	
Santa Rosa Beach, FL	\$ 300	\$ 300	\$ 75	\$ 225	\$ 300	97.6	121.2	124%	\$ 372	
Scottsdale, AZ	\$ 300	\$ 213	\$ 75	\$ 160	\$ 235	113.9	121.2	106%	\$ 250	
Seattle, WA	\$ 425	\$ 310	\$ 106	\$ 233	\$ 339	117.5	121.2	103%	\$ 350	
Sherman Oaks, CA	\$ 405	\$ 350	\$ 101	\$ 263	\$ 364	131.0	121.2	93%	\$ 337	
Southfield, MI	\$ 330	\$ 245	\$ 83	\$ 184	\$ 267	96.1	121.2	126%	\$ 337	
Spring Lake, NJ	\$ 400	\$ 275	\$ 100	\$ 206	\$ 306	122.2	121.2	99%	\$ 303	
Springfield, NJ	\$ 375	\$ 300	\$ 94	\$ 225	\$ 319	128.4	121.2	94%	\$ 301	
St. Louis, MO	\$ 556	\$ 351	\$ 139	\$ 263	\$ 402	94.4	121.2	128%	\$ 516	
Staten Island, NY	\$ 450	\$ 425	\$ 113	\$ 319	\$ 432	151.4	121.2	80%	\$ 346	
Sugar Land, TX	\$ 450	\$ 400	\$ 113	\$ 300	\$ 413	99.0	121.2	122%	\$ 506	
Tampa, FL	\$ 385	\$ 290	\$ 96	\$ 218	\$ 314	92.9	121.2	131%	\$ 410	
Tempe, AZ	\$ 380	\$ 240	\$ 95	\$ 180	\$ 275	97.3	121.2	125%	\$ 343	
The Woodlands, TX	\$ 600	\$ 600	\$ 150	\$ 450	\$ 600	95.0	121.2	128%	\$ 766	
Tucker, GA	\$ 350	\$ 300	\$ 88	\$ 225	\$ 313	93.5	121.2	130%	\$ 406	
Tucson, AZ	\$ 400	\$ 343	\$ 100	\$ 257	\$ 357	96.4	121.2	126%	\$ 449	
Upper Marlboro, MD	\$ 425	\$ 380	\$ 106	\$ 285	\$ 391	111.3	121.2	109%	\$ 426	
Ventura, CA	\$ 350	\$ 235	\$ 88	\$ 176	\$ 264	131.0	121.2	93%	\$ 244	
Wantagh, NY	\$ 595	\$ 415	\$ 149	\$ 311	\$ 460	129.2	121.2	94%	\$ 432	
Washington, DC	\$ 781	\$ 510	\$ 195	\$ 382	\$ 577	141.6	121.2	86%	\$ 494	
Wayne, NJ	\$ 425	\$ 375	\$ 106	\$ 281	\$ 387	128.4	121.2	94%	\$ 365	
West Orange, NJ	\$ 563	\$ 275	\$ 141	\$ 206	\$ 347	128.4	121.2	94%	\$ 328	
West Palm Beach, TX	\$ 425	\$ 425	\$ 106	\$ 319	\$ 425	90.1	121.2	135%	\$ 572	
Wheaton, IL	\$ 405	\$ 350	\$ 101	\$ 263	\$ 364	117.4	121.2	103%	\$ 376	
White Plains, NY	\$ 463	\$ 354	\$ 116	\$ 266	\$ 382	151.4	121.2	80%	\$ 306	
Wilmette, IL	\$ 450	\$ 395	\$ 113	\$ 296	\$ 409	117.4	121.2	103%	\$ 422	
Wilmington, DE	\$ 703	\$ 359	\$ 176	\$ 269	\$ 445	108.4	121.2	112%	\$ 498	
Winston-Salem, NC	\$ 525	\$ 375	\$ 131	\$ 281	\$ 412	87.9	121.2	138%	\$ 568	
Woodland Hills, CA	\$ 625	\$ 485	\$ 156	\$ 364	\$ 520	131.0	121.2	93%	\$ 481	
York, PA	\$ 345	\$ 235	\$ 86	\$ 176	\$ 262	98.9	121.2	123%	\$ 321	
	2017 Average Billing Rate									\$ 374

Escalation to Test Period Midpoint (December 31, 2018)

CPI at December 31, 2017	246.5
CPI at December 31, 2018	251.2
Inflation/Escalation (Note B)	1.9%
Average Hourly Billing Rate For Attorneys At December 31, 2018	\$ 382

Note A: National Law Journal 2017 Billing Survey

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

Note C: U.S. Bureau of Labor Statistics (<https://data.bls.gov/cgi-bin/surveymost>)

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

Survey billing rates in effect in 2018 (Note A)

A. Calculation of Average Hourly Billing Rate by Consultant Position

Average Hourly Rates (Note A)				
Analyst Consultant	Associate	Sr. Assoc/ Manager	Principal	Partner
\$ 217	\$ 244	\$ 303	\$ 461	\$ 540

Average

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)	\$ 217	\$ 244	\$ 303	\$ 461	\$ 540	
Percent of Consulting Assignment	30%	30%	25%	10%	5%	Weighted Average
	\$ 65	\$ 73	\$ 76	\$ 46	\$ 27	\$ 287
Average Hourly Billing Rate For Management Consultants During 2018						\$ 287

Note A: Source is ALM Intelligence

New Jersey-American Water Company, Inc.
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 2017 (Note A)					
<u>Average Hourly Billing Rate (Note A)</u>					
	Staff Accountant	Senior Accountant	Manager	Partner	
Average Hourly Billing Rate by CPA Firm Position	\$ 117	\$ 152	\$ 203	\$ 259	
Percent of Accounting Assignment	30%	30%	20%	20%	Weighted Average
	\$ 35	\$ 45	\$ 41	\$ 52	\$ 173
<u>Escalation to Test Period Midpoint (December 31, 2018)</u>					
					246.5
					251.2
				Inflation/Escalation (Note B)	1.9%
Average Hourly Billing Rate For New Jersey CPAs At December 31, 2018					\$ 176

Note A: Source is AICPA's 2018 National PCPS/TSCPA Management of an Accounting Practice Survey (New Jersey edition)

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

New Jersey-American Water Company, Inc.
Billing Rates of Technology and Innovation Professionals

A. Calculation of Average Hourly Billing Rate by Information Technology Position
 Survey billing rates were those in effect in 2018 (Note A)

		Average Hourly Billing Rate (Note A)				
		Contractor Positions		Consultant Positions		
		Contractor	Senior Contractor	Associate	Manager	Partner
Average Hourly Billing Rate by IT Position Category		\$ 113	\$ 158	\$ 226	\$ 334	\$ 415
Percent of IT Assignment		25%	25%	25%	15%	10%
		\$ 28	\$ 39	\$ 57	\$ 50	\$ 42
						\$ 216

Note A: Source is ALM Intelligence and American Water Service Company information

New Jersey-American Water Company, Inc.
Billing Rates of New Jersey Engineers

A. Calculation of Average 2018 Hourly Rate by Engineer Position (Note A)				
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	\$100	\$113	\$187	\$244
Firm #2	\$81	\$109	\$156	\$185
Firm #3	\$76	\$93	\$161	\$205
Firm #4	\$82	\$119	\$197	\$243
Firm #5	\$104	\$125	\$198	\$265
Firm #6	\$156	\$142	\$213	\$301
Firm #7	\$102	\$119	\$182	\$216
Firm #8	\$98	\$114	\$156	\$210
Firm #9	\$102	\$96	\$154	\$190
Firm #10	\$102	\$125	\$155	\$185
Firm #11	\$82	\$116	\$154	\$175

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)	\$98	\$115	\$174	\$220	
Typical Percent of Time on an Engineering Assignment	13%	31%	46%	10%	
	\$13	\$36	\$79	\$23	\$151

Note A: Source is American Water Service Company Information

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.

Service Provider	12 Months Ended June 30, 2019		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 275	\$ 382	\$ (107)
Management Consultant	\$ 162	\$ 287	\$ (125)
Certified Public Accountant	\$ 108	\$ 176	\$ (68)
T&I Professional	\$ 120	\$ 216	\$ (96)
Professional Engineer	\$ 103	\$ 151	\$ (48)

Based on these cost-per-hour differentials and the number of managerial and professional services hours billed to NJAWC during the Evaluation Year, outside service providers would have cost \$19,575,608 more than the Service Company (see table below). Thus, on average, outside providers' hourly rates are 67% higher than those of the Service Company (\$19,575,608 / \$29,077,347).

Service Provider	12 Months Ended June 30, 2019		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (107)	8,915	\$ (953,905)
Management Consultant	\$ (125)	48,671	\$ (6,083,875)
Certified Public Accountant	\$ (68)	72,093	\$ (4,902,324)
T&I Professional	\$ (96)	63,099	\$ (6,057,504)
Professional Engineer	\$ (48)	32,875	\$ (1,578,000)
Service Company Less Than Outside Providers			\$ (19,575,608)

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, NJAWC would have been charged by outside providers for overtime worked by Service Company personnel who are not paid for that time.

If NJAWC 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 over 225,000 hours of work (approximately 125 full-time equivalents at 1,800 "billable" hours per FTE per year) would add a significant workload to the existing NJAWC management team. Thus, it would be necessary for NJAWC to add at least 4 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. These persons must also have management experience and the authority necessary to provide credibility with the outside firms. As calculated in the table below, the new positions would add \$721,600 per year to NJAWC's personnel expenses

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

<u>Cost of Adding 4 Professional Positions To NJAWC's Staff</u>	
	<u>Total</u>
New Positions' Salary	\$ 110,000
Benefits (at 49%)	\$ 53,900
Office Expenses (15%)	\$ 16,500
Total Cost per Position	\$ 180,400
Number of Positions Required	<u>4</u>
Total Cost of Added NJAWC Staff	\$ 721,600

Thus, the total effect on NJAWC customers of contracting all services now provided by Service Company would be an increase in their costs of \$20,297,208 (\$19,575,608 + \$721,600). Based on the results of this comparison, it is possible to conclude that the Service Company charged NJAWC at the lower of cost or market for services provided during the Evaluation Year.

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

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. Table 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.

Utility	State
Atlantic City Electric	New Jersey
Jersey Central Power	New Jersey
Public Service Electric & Gas	New Jersey
Rockland Electric	New Jersey
Delmarva Power & Light	Delaware
Central Hudson Gas & Electric	New York
Consolidated Edison	New York
New York State Electric & Gas	New York
Niagra Mohawk Power	New York
Orange & Rockland	New York
Rochester Gas & Electric	New York
Duquesne Light	Pennsylvania
Metropolitan Edison	Pennsylvania
PECO Energy	Pennsylvania
Pennsylvania Electric	Pennsylvania
Pennsylvania Power	Pennsylvania
PPL Electric Utilities	Pennsylvania
West Penn Power	Pennsylvania

New Jersey-American Water Company, Inc.
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.

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

NJAWC's Cost per Customer

As calculated below, NJAWC's customer accounts services expense per customer was \$21.78 for the Evaluation Year. 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 NJAWC. It is necessary to adjust the Service Company's charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.08 calls per customer during 2018. Thus, the Service Company's 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, Inc.		Year Ended 6/30/19	Adjustment Fewer Calls For	
	Cost Component	Service Co Charges	Water Cos. (A)	Adjusted
Service Company	Call processing, order processing, credit, bill collection	\$ 7,147,192	\$ 3,220,722	\$ 10,367,913
	Customer payment processing			\$ 505,339 (B)
NJAWC	Postage & forms			\$ 3,586,763
	Customer Advocacy unit			\$ 702,600
			Cost Pool Total	\$ 15,162,616
			Total Customers	696,302
	Year Ended June 30, 2019 Cost Per NJAWC Customer			\$ 21.78

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	\$ 2,466,447		
	Electric utility industry's avg calls/customer	2.50		
	American Water's avg calls/customer	1.08		
	Percent different	131%	131%	
	Total Adjustment	\$ 3,220,722		
Note B: Estimated customer payment processing expenses				
	Number of customer bills	7,983,235		
	Bank charge per item	\$ 0.0633		
	Total estimated annual expense	\$ 505,339		

Electric Utility Group Cost per Customer

Table 12 (page 32) shows the calculation of customer accounts expense per customer for 2018 for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

Table 12

New Jersey-American Water Company, Inc.
Comparison Group 2018 Customer Accounts Expense Per Customer

Comparison Group	State	Customer Accounts Services Cost Pool				Total Customers	Customer Account Services Expenses per Customer
		Employee Benefits			Total Cost Pool		
		Account 903 and 905	Employee Pension and Benefits	Payroll Taxes			
Atlantic City Electric	New Jersey	\$ 52,141,740	\$ 374,231	\$ 194,968	\$ 52,710,939	554,881	\$ 95.00
Central Hudson Gas & Electric	New York	\$ 14,299,159	\$ 813,425	\$ 529,463	\$ 15,642,047	264,382	\$ 59.16
Consolidated Edison	New York	\$ 134,193,205	\$ 18,467,415	\$ 7,818,799	\$ 160,479,419	3,482,663	\$ 46.08
Delmarva Power & Light	Delaware	\$ 46,768,268	\$ 266,164	\$ 223,588	\$ 47,258,020	523,856	\$ 90.21
Duquesne Light	Pennsylvania	\$ 7,905,392	\$ 1,375,514	\$ 612,076	\$ 9,892,982	597,498	\$ 16.56
Jersey Central Power	New Jersey	\$ 15,842,348	\$ (1,339,799)	\$ 607,205	\$ 15,109,754	1,131,190	\$ 13.36
Metropolitan Edison	New Jersey	\$ 7,194,586	\$ (910,781)	\$ 189,967	\$ 6,473,772	569,982	\$ 11.36
New York State Electric & Gas	New York	\$ 40,542,854	\$ 4,901,552	\$ 1,400,619	\$ 46,845,024	894,000	\$ 52.40
Niagra Mohawk Power	New York	\$ 42,783,829	\$ 4,418,760	\$ 1,645,773	\$ 48,848,362	1,377,970	\$ 35.45
Orange & Rockland Utilities	New Jersey	\$ 13,529,581	\$ 1,816,729	\$ 597,682	\$ 15,943,992	232,715	\$ 68.51
PECO Energy	Pennsylvania	\$ 70,806,731	\$ 2,574,072	\$ 2,426,698	\$ 75,807,501	1,642,854	\$ 46.14
Pennsylvania Electric	Pennsylvania	\$ 7,571,326	\$ (358,038)	\$ 154,953	\$ 7,368,242	586,891	\$ 12.55
Pennsylvania Power	Pennsylvania	\$ 2,094,621	\$ 131,943	\$ 26,375	\$ 2,252,939	166,182	\$ 13.56
PPL Electric Utilities	Pennsylvania	\$ 45,238,473	\$ 3,020,454	\$ 1,549,697	\$ 49,808,624	1,440,560	\$ 34.58
Public Service Electric & Gas	New Jersey	\$ 160,042,249	\$ 1,196,400	\$ 3,890,437	\$ 165,129,086	7,761,647	\$ 21.28
Rochester Gas & Electric	New York	\$ 20,450,852	\$ 1,269,415	\$ 456,768	\$ 22,177,034	381,326	\$ 58.16
Rockland Electric	New York	\$ 4,203,507	\$ 1,115,504	\$ 170,209	\$ 5,489,220	73,526	\$ 74.66
West Penn Power	Pennsylvania	\$ 7,589,502	\$ 260,559	\$ 201,838	\$ 8,051,899	726,159	\$ 11.09
Total/Average		\$ 693,198,223	\$ 39,393,517	\$ 22,697,114	\$ 755,288,854	22,408,282	\$ 33.71

Source: FERC Form 1; Baryenbruch & Company, LLC, analysis

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

Summary of Results

As shown in the table below, NJAWC's cost per customer is below the 2018 average cost of the neighboring electric utility comparison group. It can be concluded that NJAWC's Evaluation Year customer accounts expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to NJAWC are comparable to those of other utilities.

Customer Account Services Expenses Per Customer	
Atlantic City Electric	\$ 95.00
Delmarva Power & Light	\$ 90.21
Rockland Electric	\$ 74.66
Orange & Rockland Utilities	\$ 68.51
Central Hudson Gas & Electric	\$ 59.16
Rochester Gas & Electric	\$ 58.16
New York State Electric & Gas	\$ 52.40
PECO Energy	\$ 46.14
Consolidated Edison	\$ 46.08
Niagra Mohawk Power	\$ 35.45
PPL Electric Utilities	\$ 34.58
Comparison Group Average	\$ 33.71
NJAWC	\$ 21.78
Public Service Electric & Gas	\$ 21.28
Duquesne Light	\$ 16.56
Pennsylvania Power	\$ 13.56
Jersey Central Power	\$ 13.36
Pennsylvania Electric	\$ 12.55
Metropolitan Edison	\$ 11.36
West Penn Power	\$ 11.09

Analysis of Services

The final aspect of this study is an assessment of whether the services provided to NJAWC by the Service Company would be necessary if NJAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for NJAWC. Based on discussions with Service Company personnel, the matrix in Table 13 (pages 35-37) was created showing which entity—NJAWC or a Service Company location—is responsible for each of the functions NJAWC 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 Table 13, the following conclusions can be drawn:

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

New Jersey-American Water Company, Inc.
Designation of Responsibility for Water Utility Functions

P - Primarily Responsible S - Provides Support	Performed By:			
	NJAWC	American Water Service Company		
		Customer Call Center	Central Services	Technology & Innovation
Company Function				
Engineering and Construction Management				
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			
Water Quality and Purification				
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
Transmission and Distribution				
Preventive Maintenance Program Development	P		S	
System Maintenance	P		S	
Leak Detection	P		S	
Customer Service				
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: NJAWC responsible for State regulations, Central Services responsible for Federal regulations

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

New Jersey-American Water Company, Inc.
Designation of Responsibility for Water Utility Functions

Water Company Function	NJAWC	Performed By:			
		American Water Service Company			
		Customer Call Center	Central Services	Technology & Innovation	Central Lab
Financial Management					
Financial Planning	P		S		
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		
Internal Auditing			P		
Budgeting and Variance Reporting					
Corporate Guidelines & Instructions			P		
Budget Preparation	P				
Revenue and O&M	P		S		
Depreciation and Interest Expense			P		
Budget Preparation--Service Company Charges		S	P	S	S
Capital Budget Preparation--Projects	P		S		
Capital Budget Preparation--Non-Project Work	P		S		
Prepare Monthly Budget Variance Report (Budget/Plan Analysis)	P		S		
Prepare Capital Project Budget Status Report	P		S		
Year-End Projections	P		S		
Accounting and Taxes					
Accounts Payable Accounting			P		
Payroll Accounting			P		
Work Order Accounting	S		P		
Fixed Asset Accounting			P		
Journal Entry Preparations--Billing Corrections			P		
Journal Entry Preparation--All Others	S		P		
Financial Statement Preparation			P		
State Commission Reporting	S		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. NJAWC has the ability to issue LTD.

New Jersey-American Water Company, Inc.
Designation of Responsibility for Water Utility Functions

Water Company Function	NJAWC	Performed By:			
		American Water Service Company			
		Customer Call Center	Central Services	Technology & Innovation	Central Lab
Rates					
Rate Studies & Tariff Change Administration	P		S		
Rate Case Planning and Preparation	P		S		
Rate Case Administration	P		S		
Commission Inquiry Response	P		S		
Legal	S		P		
Purchasing and Materials Management – National (pipe, chemicals, meters, etc.)					
Specification Development	S		P		
Bid Solicitation	S		P		
Contract Administration	S		P		
Purchasing and Materials Management – State (state supplier service agreements)					
Specification Development	P		S		
Bid Solicitation	P				
Contract Administration	P				
Ordering	P				
Inventory Management	P				
Human Resources Management					
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		
Technology & Innovation Services					
IT Operations				P	
Applications Support				P	
Network Administration				P	
Local IT Support	S			P	
Help Desk				P	

Governance Practices Associated with Service Company Charges

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

1. **NJAWC Company Board Oversight** – The NJAWC Board of Directors includes the NJAWC President, Vice President of Operations, Divisional CFO and external business and community leaders. This diverse board ensures that the needs of NJAWC and its customers are a consideration when overseeing the delivery of Service Company services. The NJAWC 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. **Divisional CFO (CFO)** – The CFO and supporting staff are responsible for monitoring the overall financial performance of NJAWC. This includes the financial reporting process, performing revenue and expense analysis, coordinating the annual budgeting process, and monitoring internal control performance. The CFO monitors the performance, expense and reporting from the Service Company and verifies and validates the cost of services received. In addition, the Financial Analysis and Decision Support staff reviews the monthly charges and investigates whether the amount, quality and/or services are appropriate.
3. **Service Company Board Oversight** – The Service Company Board of Directors is comprised of 16 members, of which the NJAWC President is a member. 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
 - Approve American Water policies, procedures and practices as they relate to Service Company.
4. **Service Company Budget Review/Approval** – The NJAWC 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. The Service Company's overall budget is assigned to each operating company, which consolidates these charges with its own direct spending into to arrive at a total operating company budget. This is presented to the operating company's board of directors (e.g., NJAWC) for their approval.
5. **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 NJAWC 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 Planning process
6. **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

VI - Question 4 – Need for Service Company Services

- 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.

7. **Accounting and Financial Reporting** – Similar to American Water’s regulated subsidiaries, 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 allocated and assigned to the operating companies 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 an 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. NJAWC 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.
8. **NJAWC Company Budget Variance Reporting** – The “Service Company Affiliate Report,” produced monthly for each operating company, detailing the actual versus budgeted charges for each specific function in the Service Company organization. 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 comparisons.