BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE

IN THE MATTER OF THE
APPLICATION OF ARTESIAN
WATER COMPANY, INC. FOR
A REVISION OF RATES
(FILED APRIL 11, 2014).

PSC DOCKET NO. 14-132

Direct Testimony and Exhibit of

Brian C. Collins

On behalf of

Christiana Care Health Services, Inc.

September 24, 2014
Direct Testimony of Brian C. Collins

1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
A Brian C. Collins. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

4 Q PLEASE STATE YOUR OCCUPATION.
A I am a consultant in the field of public utility regulation and an Associate with Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.
A These are set forth in Appendix A of my testimony.

10 Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?
A I am appearing on behalf of Christiana Care Health Services, Inc. (“CCHS”). CCHS purchases substantial quantities of water from Artesian Water Company, Inc. (“AWC” or “Company”), and is the only entity currently receiving services from AWC under its
wholesale industrial rate, which is identified as “CCH” in the Company’s cost of service study.

WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

I have reviewed the Company’s proposed revenue allocation and cost of service study, and am recommending that the Company’s cost of service study be corrected to allocate Purchased Water Expense and Power Expense between rate classes. I am also recommending that the Company’s proposed rate increase for CCHS above the system average increase be rejected, and in doing so provide revised allocations of costs based upon the Company’s current filing.

PLEASE SUMMARIZE YOUR RECOMMENDATIONS CONCERNING THE COMPANY’S PROPOSED REVENUE ALLOCATION.

The Company is proposing to increase CCHS’s rates by 18.29%, which is above the system average claimed revenue deficiency of 15.98%. I recommend the Company’s proposed increase to CCHS be rejected because it is not consistent with AWC’s cost of service study.

Instead, I recommend that any change to CCHS’s rates reflect the claimed deficiency in its rates relative to its cost of service. Based on the Company’s own current cost of service study, CCHS’s rates should be increased by approximately 11.7%, or $47,000, which is an increase lower than the system average claimed revenue deficiency of 15.98%. Again, this below-system-average increase for CCHS is justified based on the Company’s own cost of service study.
Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS CONCERNING THE COMPANY’S PROPOSED COST OF SERVICE STUDY.

A AWC’s cost of service study should be corrected to allocate Purchased Water Expense and Power Expense between rate classes taking into account an extra capacity component as well as a base component. These corrections are needed to accurately determine each rate class’s cost of service.

Revenue Allocation

Q WHAT IS THE COMPANY’S PROPOSED REVENUE ALLOCATION FOR CCHS?

A In general, the Company proposes a 15.98% system average increase based on its revenue allocation proposal shown in JFG Exhibit 1, Schedule 17. For CCHS, AWC proposes an 18.29% revenue increase, or approximately $73,572, as shown on BCC Exhibit 1, Schedule 1, pages 1 and 2. As shown on BCC Exhibit 1, Schedule 1, page 3, AWC’s proposed revenue allocation for CCHS is equal to 114.44% of the system average increase of 15.98%.

Q DO YOU AGREE WITH THE COMPANY’S PROPOSED REVENUE ALLOCATION FOR CCHS?

A No. Based on the results of AWC’s cost of service study, the Company’s revenue allocation is inconsistent with its cost of service study results.

Q PLEASE EXPLAIN HOW THE COMPANY’S PROPOSED REVENUE ALLOCATION FOR CCHS IS INCONSISTENT WITH ITS COST OF SERVICE STUDY RESULTS.

A While the Company proposes an above system average increase for CCHS, the Company’s cost of service study results show that CCHS should receive a below
system average increase of 20.37%, or 73.08% of the system average increase of 27.87%. This is shown in BCC Exhibit 1, Schedule 2, page 3.

Q BASED ON THE RESULTS OF THE COST OF SERVICE STUDY, WHAT REVENUE ALLOCATION SHOULD CCHS RECEIVE?

A Based on the Company’s cost of service study results, I recommend that any increase CCHS receives bring it no higher than cost of service. Based on the Company’s claimed revenue deficiency and cost of service study, CCHS should receive an increase of 11.68%, which is 73.08% of the system average revenue increase of 15.98%. This increase, of course, is based on the revenue requirement claimed by AWC. I am recommending that the rate base, operating and capital costs approved by the Commission in this proceeding be factored into the cost of service study with the adjustments to cost classification discussed herein. The rate for wholesale industrial water usage, i.e., CCH, should be determined on the basis of the approved revenues.

Cost of Service Study

Q DID YOU REVIEW AWC’S COST OF SERVICE STUDY (JFG EXHIBIT 1) AND THE ACCOMPANYING TESTIMONY OF MR. JOHN GUASTELLA?

A Yes, I did. Mr. Guastella’s cost of service study utilizes the widely accepted Base-Extra Capacity method for functionalizing, classifying and allocating costs to AWC’s various customer classes. Investment in water utility plant and operating costs are first functionalized according to the role they play in providing water service: water supply, pumping, treatment, transmission, distribution, metering and billing. Next, these costs are classified into cost categories that reflect the causation of these
costs: Base, or average day rates of flow; Extra Capacity-Maximum Day and Extra Capacity-Peak Hour rates of flow; and Customer-related costs, such as metering and billing.

Many costs are classified to more than one category. For example, treatment costs are normally classified to both the Base and Extra Capacity-Maximum Day category.

Finally, these costs are allocated to customer classes. Customers with similar usage characteristics (volume of use, relative peak day and peak hour demands, and meter size) are grouped into classes. Each class is assigned its share of costs based on volume of use and the peak demand it collectively places on the system. CCHS is placed alone in a separate customer class, as identified above.

Q PLEASE SUMMARIZE YOUR PROPOSED ADJUSTMENTS TO AWC’S COST OF SERVICE STUDY FOR PURCHASED WATER AND POWER EXPENSES.

A AWC’s cost of service study is generally conducted consistent with accepted industry practice. However, the cost of service study has not properly differentiated between the costs AWC incurs for Purchased Water Expense and Power Expense based on its average daily usage demands and its peak period usage. These costs vary in part based on the Company’s customer peak demands, and they should be allocated on a corresponding basis. Otherwise, these costs will not be accurately allocated to the customers who created the demands that caused the cost to be incurred.

Both of these expense items were classified exclusively to the Base cost category in Mr. Guastella’s study (JFG Exhibit 1, Schedule 7). Based on his classification, costs for these items vary only with average rates of use in the cost of
service study, and are considered not to be influenced by maximum day or peak hour rates of flow. This is not supported by the information provided by AWC.

Q WHY DO YOU DISAGREE WITH MR. GUASTELLA’S CLASSIFICATION OF PURCHASED WATER EXPENSE?

A AWC projects that pro forma water purchases will constitute approximately 15.4% of total supplies in the Test Period. (See Exhibit CTD 17 sponsored by Mr. C. Thomas deLorimier on behalf of AWC.) Thus, nearly one gallon in every six gallons of water supply will be procured through purchases from other water utilities.

Further inspection of Exhibit CTD 17 shows that AWC uses purchased water to meet not only average demands, but peak demands in the summer months as well.

It is reasonable to expect that AWC will experience its highest daily demands during a summer month. Thus, the use of the Base-Maximum Day allocator is a reasonable way to reflect the cost of meeting summertime demands. Purchases from other utilities help AWC meet this demand, and the cost of these purchases should be classified and allocated accordingly.

Since it also reasonable to assume that AWC will experience its peak hour demand in the summer months, purchases from other utilities would also help AWC to meet its peak hour demand. Therefore, I believe it is more appropriate that Purchased Water Expense be classified with AWC’s Allocation Factor 4, Base/Maximum Day/Peak Hour. At the least, based on the foregoing considerations, Purchased Water Expense should be classified with AWC’s Allocation Factor 2, Base/Maximum Day (JFG Exhibit 1, Schedule 9, page 1).
Q WHY DO YOU BELIEVE THAT ELECTRIC POWER FOR PUMPING EXPENSE
SHOULD NOT BE CLASSIFIED SOLELY TO THE BASE COST CATEGORY?

A AWC’s pumping facilities are used to meet average day, peak day and peak hour
rates of demand. This is recognized in AWC’s own cost of service study, where
Allocation Factor 4 (Base/Maximum Day/Peak Hour) is used to assign pumping plant
investment (JFG Exhibit 1, Schedule 4), accumulated pumping plant depreciation
(JFG Exhibit 1, Schedule 5) and non-electrical pumping plant operating and
maintenance expenses (JFG Exhibit 1, Schedule 7) to each of these three cost
categories. The pumps, in turn, must consume electric power at rates sufficient to
meet these peak day and peak hour demands.

Q WHY DID YOU USE ALLOCATION FACTOR 4 (BASE/MAXIMUM DAY/PEAK
HOUR) INSTEAD OF ALLOCATION FACTOR 1 (BASE)?

A Mr. Guastella’s Allocation Factor 1 does not recognize maximum day or peak hour
rates of use. Thus, it is not appropriate to use this Factor to classify and allocate
electric power expense. Allocation Factor 4, however, incorporates average day,
maximum day and peak hour flow rates. Thus, it is more representative of how power
is used to meet AWC’s average and peak pumping requirements.

Q CAN YOU CITE ANY AUTHORITY FOR YOUR PROPOSED CLASSIFICATION OF
ELECTRIC POWER EXPENSE?

A Yes, I can. American Water Works Association’s Manual M-1, Sixth Edition,
Principles of Water Rates, Fees, and Charges, states on page 65 that the extent to
which power costs should be allocated to extra capacity depends on the variations in
demands incurred in pumping.
Q WHAT IS THE EFFECT OF THE PURCHASED WATER AND POWER EXPENSE ADJUSTMENTS ON THE COST OF SERVICE ALLOCATED TO THE CCHS CLASS?

A AWC’s proposed cost of service for CCH is $484,144 as shown in JFG Exhibit 1, Schedule 1. If Purchased Water Expense and Power Expense are both allocated on Factor 4, the cost to serve CCHS is reduced by $30,451. The adjusted cost to serve CCHS becomes $453,693. This results in an increase of 12.80% for CCHS relative to current revenues as shown in BCC Exhibit 1, Schedule 2, page 2.

If Purchased Water Expense is allocated on Factor 2 and Power Expense is allocated on Factor 4, the cost to serve CCHS is reduced by $19,634. The adjusted cost to serve CCHS becomes $464,510. This results in an increase of 15.49% for CCHS relative to current revenues as shown in BCC Exhibit 1, Schedule 2, page 2.

Q DO YOUR ADJUSTED COST OF SERVICE STUDY RESULTS FURTHER JUSTIFY A BELOW SYSTEM AVERAGE INCREASE FOR CCHS?

A Yes. The Company’s cost of service results indicate that CCHS should receive 73.08% of the system average increase. With my revisions to the Company’s cost of service study, CCHS would receive an increase even further below the system average increase than that shown by the Company in JFG Exhibit 1, Schedule 1. As described above, allocating Purchased Water Expense and Power Expense on Factor 2 and Factor 4, respectively, would result in CCHS receiving a 15.49% increase, or 55.57% of the system average increase. Allocating both Purchased Water Expense and Power Expense on Factor 4 would result in CCHS receiving a 12.80% increase, or 45.92% of the system average increase. This is shown on BCC Exhibit 1, Schedule 2, page 3.
1  Q  DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

2  A  Yes, it does.
Qualifications of Brian C. Collins

1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
2 A Brian C. Collins. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

4 Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?
5 A I am an Associate in the field of public utility regulation with the firm of Brubaker & Associates, Inc. (“BAI”), energy, economic and regulatory consultants.

7 Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.
8 A I graduated from Southern Illinois University Carbondale with a Bachelor of Science degree in Electrical Engineering. I also graduated from the University of Illinois at Springfield with a Master of Business Administration degree. Prior to joining BAI, I was employed by the Illinois Commerce Commission and City Water Light & Power (“CWLP”) in Springfield, Illinois.

   My responsibilities at the Illinois Commerce Commission included the review of the prudence of utilities’ fuel costs in fuel adjustment reconciliation cases before the Commission as well as the review of utilities’ requests for certificates of public convenience and necessity for new electric transmission lines. My responsibilities at CWLP included generation and transmission system planning. While at CWLP, I completed several thermal and voltage studies in support of CWLP’s operating and planning decisions. I also performed duties for CWLP’s Operations Department, including calculating CWLP’s monthly cost of production. I also determined CWLP’s
allocation of wholesale purchased power costs to retail and wholesale customers for
use in the monthly fuel adjustment.

In June 2001, I joined BAI as a Consultant. Since that time, I have
participated in the analysis of various utility rate and other matters in several states
and before the Federal Energy Regulatory Commission (“FERC”). I have filed or
presented testimony before the Arkansas Public Service Commission, Florida Public
Service Commission, the Idaho Public Utilities Commission, the Illinois Commerce
Commission, the Indiana Utility Regulatory Commission, the Minnesota Public Utilities
Commission, the Missouri Public Service Commission, the Public Utilities
Commission of Ohio, the Rhode Island Public Utilities Commission, the Public Service
Commission of Wisconsin, the Washington Utilities and Transportation Commission,
and the Wyoming Public Service Commission. I have also assisted in the analysis of
transmission line routes proposed in certificate of convenience and necessity
proceedings before the Public Utility Commission of Texas.

In 2009, I completed the University of Wisconsin – Madison High Voltage
Direct Current (“HVDC”) Transmission Course for Planners that was sponsored by
the Midwest Independent Transmission System Operator, Inc. (“MISO”).

BAI was formed in April 1995. BAI and its predecessor firm has participated in
more than 700 regulatory proceeding in forty states and Canada.

BAI provides consulting services in the economic, technical, accounting, and
financial aspects of public utility rates and in the acquisition of utility and energy
services through RFPs and negotiations, in both regulated and unregulated markets.
Our clients include large industrial and institutional customers, some utilities and, on
occasion, state regulatory agencies. We also prepare special studies and reports,
forecasts, surveys and siting studies, and present seminars on utility-related issues.
In general, we are engaged in energy and regulatory consulting, economic analysis and contract negotiation. In addition to our main office in St. Louis, the firm also has branch offices in Phoenix, Arizona and Corpus Christi, Texas.
### ARTESIAN WATER COMPANY INC.
#### REVENUE ALLOCATION

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<th>Line</th>
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(1) JFG Exhibit 1, Schedule 17
ARTESIAN WATER COMPANY INC.
REVENUE ALLOCATION

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(1) JFG Exhibit 1, Schedule 17
# ARTESIAN WATER COMPANY INC.
## REVENUE ALLOCATION

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(1) JFG Exhibit 1, Schedule 17
## Artesian Water Company Inc.
### Cost of Service

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(1) JFG Exhibit 1, Schedule 1
(2) Purchased Water - Factor 2; Power Expense - Factor 4
(3) Purchased Water - Factor 4; Power Expense - Factor 4
## ARTESIAN WATER COMPANY INC.
### COST OF SERVICE

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(3) Purchased Water - Factor 4; Power Expense - Factor 4
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<th>Line</th>
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(1) JFG Exhibit 1, Schedule 1
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#### COST OF SERVICE

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