COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

PETITION OF **VIRGINIA AMERICAN WATER COMPANY, AQUA VIRGINIA, INC., AND MASSANUTTEN PUBLIC SERVICE CORPORATION** For Rulemaking to establish a Water and Wastewater Infrastructure Service Charge	)	**CASE NO. PUE-2014-00066**

Direct Testimony and Exhibit of

Brian C. Collins

On behalf of

Massanutten Resort

January 27, 2015

BRUBAKER & ASSOCIATES, INC.

Project 10006.1

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Direct Testimony of Brian C. Collins

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A My name is Brian C. Collins and my business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?

A I am a consultant in the field of public utility regulation and an Associate with the firm Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A These are set forth in Appendix A to my testimony.

Q ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A I am testifying on behalf of Massanutten Resort.[1] Massanutten Resort is the owner and operator of a four-season mountain resort located in Rockingham County, Virginia. It is the largest water and wastewater service customer of Massanutten Public Service Corporation ("MPSC"), one of the petitioners in this proceeding. The Joint Petitioners in this proceeding comprise MPSC, Virginia-American Water Company, and Aqua Virginia, Inc.

Q WHAT IS THE SUBJECT MATTER OF YOUR TESTIMONY?

A My testimony will describe my concerns and recommended changes with respect to the rules and procedures for the Water and Wastewater Infrastructure Surcharge ("WWISC") proposed in this proceeding by the Joint Petitioners. The proposed WWISC rules and procedures are included as Exhibit B to the direct testimony of Mr. Gary L. Akmentins on behalf of Virginia-American Water Company and Joint Petitioners. Massanutten Resort has previously provided recommended changes to the WWISC proposed rules and procedures in its comments filed on November 7, 2014 in this proceeding. I agree with the recommendations and except for the recommendation regarding Section F of the proposed rules and procedures, will not further comment on them in my testimony.

It should be noted that my failure to address any specific aspect of the Joint Petitioners' proposal in this proceeding does not indicate tacit agreement with the Joint Petitioners.

[1] "Massanutten Resort" is comprised of Great Eastern Resort Corporation and Great Eastern Resort Management, Inc.

Summary of Conclusions and Recommendations

Q PLEASE BRIEFLY SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS IN THIS PROCEEDING.

A A summary of my conclusions and recommendations is listed below:

1. The WWISC as proposed by the Joint Petitioners would be used to recover capital costs associated with eligible infrastructure replacement. In general, base rates should be used to recover a utility's capital costs. Surcharges are considered single-issue ratemaking and should only be used to recover costs that are volatile or beyond the utility's control. Capital costs are not volatile or beyond the utility's control. Therefore, capital costs should not be recovered through surcharges.

2. In the event the Virginia State Corporation Commission ("Commission") does approve the proposed WWISC rules and procedures as proposed by the Joint Petitioners, there are some modifications to the proposed rules and procedures that I recommend.

   a. First, the cost of eligible infrastructure plant included in the WWISC should be allocated according to proper cost of service principles. This would include directly assigning the costs of any eligible infrastructure to those customer classes that directly benefit from the infrastructure replacement. The proposed WWISC rules should be modified to ensure direct assignment where possible would be used to allocate costs to the classes that cause the utility to incur them.

   b. After properly allocating the costs of eligible infrastructure to classes, a WWISC should be developed for each customer class. Each respective class surcharge should recover the costs allocated to its respective class. The proposed WWISC rules should be modified to ensure that each class pays its own respective surcharge developed by the utility.

   c. In addition, when determining the level of WWISC surcharges for recovering the costs of eligible infrastructure, the level of depreciation expense built into existing base rates should be used in determining the incremental revenue requirement for eligible infrastructure to be recovered in the surcharge. This will synchronize a utility's investment included in base rates with its investment in eligible infrastructure. The proposed WWISC rules should be modified to ensure that depreciation expense in base rates is considered when determining the level of revenue to be recovered via a surcharge. This will ensure that a utility's customers do not pay charges in excess of the utility's cost for utility service.

3. The Commission may wish to consider other conditions for approval of the WWISC, such as a review of the make-up of a utility's customer classes to avoid intra-class subsidies, an agreement by the utility not to apply for a base rate increase for a certain period of time, a reduction in a utility's return on equity that implements a WWISC as well as the inclusion of an efficiency factor in the

WWISC to reflect increased operations and maintenance ("O&M") efficiencies associated with new eligible infrastructure investment.

Reasonableness of Surcharges

Q PLEASE DESCRIBE THE JOINT PETITIONERS' PROPOSAL.

A On June 27, 2014, the Joint Petitioners filed a Petition for Rulemaking requesting that the Commission establish rules to allow water and wastewater companies in Virginia to apply to the Commission for the establishment of a WWISC. Under the proposed rules, a water and wastewater utility would be permitted to submit a WWISC plan, which would include a proposed WWISC rider to allow for the dollar-for-dollar recovery of certain eligible infrastructure costs in addition to base rates established by the utility through the traditional cost-recovery ratemaking process.

Q IN GENERAL, IS THE USE OF SURCHARGES BY UTILITIES REASONABLE?

A It should be noted that I take no position as to whether the Commission has authority under the Code of Virginia to issue the proposed rules and procedures or whether it would be appropriate for the Commission to exercise such authority absent specific statutory direction from the Virginia General Assembly. That being said, in general, public utilities should not be permitted to recover from their customers the cost of utility service through surcharges designed to provide dollar-for-dollar cost recovery.

Q HOW SHOULD THE COSTS OF UTILITY SERVICE BE RECOVERED FROM CUSTOMERS?

A Traditional cost of service ratemaking should be used to establish a utility's base rates that are charged to a utility's customers for the provision of utility service.

In traditional cost of service utility ratemaking, a utility petitions for a rate case in order to establish base rates that would provide it an opportunity to recover its O&M expenses as well as provide it an opportunity to earn a reasonable return on its investment in capital assets. All aspects of a utility's rates are examined in the context of the base rate case proceeding. Under the traditional ratemaking process, utilities cannot change base rates charged to their customers outside of a formal base rate case proceeding. While some of the utility's costs or expenses may increase between base rate case proceedings, these particular costs or expenses could be offset by decreases in other costs or expenses.

Allowing dollar-for-dollar recovery of a utility's particular costs, without considering whether other costs of the utility are going up or down or whether revenues are more or less than anticipated, creates a risk of over-recovery and of unfair charges to the utility's customers.

Q ARE UTILITY SURCHARGES A DEPARTURE FROM TRADITIONAL RATEMAKING?

A Yes. The use of surcharges by a utility to recover specific costs or expenses is a departure from the traditional utility ratemaking process. Surcharges are considered single-issue ratemaking. Single-issue ratemaking involves identifying specific costs or expenses in a utility's base rates that would be separately recovered from its customers outside of a formal rate case proceeding via a surcharge.

Q DO SURCHARGES REDUCE INCENTIVES FOR UTILITY COST CONTROL?

A Yes. Allowing a utility to recover specific costs or expenses through a surcharge outside of a formal base rate case proceeding can reduce a utility's incentive to

control or reduce its expenses because the utility is assured full cost recovery from its customers. With the guarantee of full cost recovery, the utility has less incentive to identify opportunities to reduce the cost or expense recovered via the surcharge.

Q IS THE USE OF A SURCHARGE BY A UTILITY IN SOME CIRCUMSTANCES REASONABLE?

A In some circumstances, the use of surcharges by a utility to recover particular costs or expenses incurred by the utility is reasonable. For costs or expenses that are considered largely outside the control of the utility or volatile, surcharges provide the opportunity for a utility to maintain its financial health by allowing recovery of these costs outside of a traditional base rate case proceeding.

Q ARE CAPITAL COSTS INCURRED BY A UTILITY VOLATILE OR OUTSIDE ITS CONTROL?

A No. Maintaining and upgrading infrastructure plant is a typical aspect of utility operations and is normally not volatile or outside the control of a utility. The costs of capital investments to replace aging infrastructure or obsolete plant can be controlled by employing certain measures such as competitively sourcing materials and labor.

Q CAN THERE BE COST EFFICIENCIES THAT MAY RESULT FROM INFRASTRUCTURE PLANT REPLACEMENT?

A Yes. Cost efficiencies may be achieved as a result of improvements in infrastructure, such as reduced O&M expenses, but such savings resulting from eligible infrastructure investment may not be recognized by a utility in order to reduce the surcharge revenue requirement to be recovered from its customers.

Q IN THE EVENT THE COMMISSION DOES APPROVE THE JOINT PETITIONERS' PROPOSED WWISC RULES, DO YOU HAVE ANY SUGGESTED CHANGES?

A Yes. The remainder of my testimony will describe my suggested changes.

Allocation of the Costs of Eligible Infrastructure

Q HAVE YOU REVIEWED SECTION E OF THE PROPOSED WWISC RULES AND PROCEDURES?

A Yes. This section states:

> Any WWISC petition and rider that is submitted to and approved by the Commission shall be allocated and charged in accordance with appropriate cost causation principles in order to avoid any undue cross subsidization between rate classes.

Q DO YOU HAVE ANY SUGGESTED LANGUAGE CHANGES OR ADDITIONS FOR THIS SECTION?

A Yes. Appropriate cost of service principles would include directly assigning the costs of any eligible infrastructure costs to those customer classes that directly benefit from the infrastructure replacement when direct assignment can be identified. This would prevent any one class from being subsidized by other classes and would ensure that the costs are assigned to the class or classes that cause them. The proposed WWISC rules should be modified to ensure direct assignment where possible would be used to allocate costs to the classes that cause the utility to incur them.

In addition, after properly allocating the costs of eligible infrastructure to classes, a WWISC should be developed for each customer class. Each respective class surcharge should recover the costs allocated to its respective class. The proposed WWISC rules should be modified to ensure that each class pays its own respective surcharge developed by the utility.

I recommend the following language be inserted at the end of section E:

> Any WWISC petition and rider that is submitted to and approved by the Commission shall be allocated and charged in accordance with appropriate cost causation principles in order to avoid any undue cross subsidization between rate classes. To the extent possible, direct assignment of costs will occur to the classes that cause a utility to incur them. This will prevent any one class or classes from being subsidized and reflect proper cost causation. A surcharge will be developed for each class and recover that class's respective costs allocated to it.

Synchronization of Utility Investment

Q SHOULD THE COMMISSION PROVIDE A UTILITY AN OPPORTUNITY TO RECOVER ITS TOTAL REVENUE REQUIREMENT?

A Yes. The Commission should provide a utility an opportunity to recover its total revenue requirement, including the incremental revenue requirement for eligible infrastructure.

However, the Commission should ensure that a utility's investment included in base rates is synchronized with the incremental eligible investment subject to a surcharge. Synchronizing a utility's total investments is fair to both the utility and its customers, and will ensure that a utility does not recover excessive charges from its customers.

Q HAVE YOU REVIEWED SECTION F OF THE PROPOSED WWISC RULES AND PROCEDURES?

A Yes. This section states:

> No other revenue requirement or ratemaking issues may be examined in the consideration of the application filed pursuant to the provisions of this chapter.

Q IN ITS PREVIOUS COMMENTS CONCERNING THE WWISC RULES AND PROCEDURES, MASSANUTTEN RESORT RECOMMENDED DELETION OF SECTION F. DO YOU AGREE?

A Yes. However, in the event the Commission does not agree to delete Section F, I recommend the inclusion of additional language to this section.

Q WHAT IS YOUR RECOMMENDATION WITH RESPECT TO SECTION F OF THE PROPOSED WWISC RULES?

A The level of depreciation expense included in base rates should be used as an offset in determining the level of surcharge revenue to be recovered from customers. This will ensure that the utility properly recovers the **incremental** revenue requirement associated with eligible infrastructure replacement and that the utility does not develop excessive surcharges for customers.

I recommend the following language be inserted at the end of section F:

> No other revenue requirement or ratemaking issues may be examined in the consideration of the application filed pursuant to the provisions of this chapter. However, this does not preclude the offset of depreciation expense included in base rates from being applied to the eligible infrastructure revenue requirement to be recovered by a surcharge.

Q WHY SHOULD DEPRECIATION EXPENSE IN BASE RATES BE REQUIRED AS AN OFFSET WHEN DETERMINING THE APPROPRIATE LEVEL OF SURCHARGE REVENUE?

A Depreciation expense that is already included in a utility's base rates can sometimes be sufficient to fund the capital investment necessary to replace a utility's aging or obsolete infrastructure. Using the depreciation expense in a utility's existing base rates to fund new infrastructure capital investment replaces depreciated utility rate

base with new utility rate base. This can be illustrated with an example. Assume that a certain utility has annual rate case proceedings, and has $10 million in depreciation expense and $10 million in new capital investment. Utility customers should be held harmless in the base rate case proceedings, since the utility's base rates would go down as rate base decreased by $10 million through depreciation, but that rate base is replaced by the new $10 million capital investment, causing the utility's base rates charged to its customers to go back up to the level where they started. Under the Joint Petitioners' current proposal for the proposed WWISC rules and procedures, customer rates would go up to account for the $10 million spent by the utility on eligible infrastructure, but the surcharge would not reflect the reduction for the $10 million of depreciated rate base. Customers would pay higher rates under the Joint Petitioners' proposal, but do not get the benefit of any offsetting reductions provided by depreciation expense included in existing utility base rates. If existing depreciation expense recovery is not considered in determining the appropriate level of surcharge revenue, it could result in excessive utility charges to customers.

Q HAVE YOU PREPARED A SIMPLE EXAMPLE TO ILLUSTRATE THE EFFECT OF DEPRECIATION EXPENSE ON THE LEVEL OF SURCHARGE REVENUES TO BE RECOVERED FROM CUSTOMERS?

A Yes. I have included an example in Exhibit BCC-1 of how a utility's customers could be charged excessive rates if the depreciation expense in base rates is not considered as an offset when determining the incremental revenue to be collected by the surcharge. In this example, I have assumed that the utility implements a surcharge for five years.

Q WHAT DOES PAGE 1 OF EXHIBIT BCC-1 SHOW?

A Page 1 considers one aspect of a utility's costs, distribution main capital costs. On page 1 of this exhibit, I have assumed that existing base rates include $10 million of depreciation expense for distribution mains. As shown on the exhibit, assuming that the utility replaces $10 million of distribution mains each year, the utility's base rates are adequate to recover its total revenues since base rates includes $10 million of distribution depreciation expense each year. As a result, a surcharge is not necessary.

Q HAVE YOU CONSIDERED THE SCENARIO WHERE ELIGIBLE INFRASTRUCTURE INVESTMENT EXCEEDS THE LEVEL OF DEPRECIATION EXPENSE INCLUDED IN BASE RATES?

A Yes. I have again assumed that existing base rates includes $10 million of depreciation expense for distribution mains. However, I have assumed that the utility replaces $15 million of distribution main plant each year. In this scenario, the utility's depreciation expense included in base rates is not adequate to recover its eligible infrastructure revenue requirement since base rates only include $10 million of distribution expense each year. The surcharge should be developed to recover the revenue requirement for <u>incremental</u> rate base growth of $5 million each year.

Q WHAT DOES PAGE 2 OF EXHIBIT BCC-1 SHOW?

A Page 2 of this exhibit shows that customers will be subject to excess charges for utility service if a surcharge is implemented to recover the revenue requirement for $10 million of replacement distribution mains if the depreciation expense in base rates is not considered as an offset to the eligible infrastructure revenue requirement.

The utility would collect an additional incremental $800,000 from customers each year even though a surcharge is not necessary for this level of investment.

Page 2 of this exhibit also shows that customers will be subject to excess charges for utility service if a surcharge is implemented to recover the revenue requirement for $15 million of eligible infrastructure investment without using depreciation expense included in base rates as an offset to the eligible infrastructure revenue requirement. Again, the utility would collect an additional incremental $800,000 from customers each year.

Other Commission Considerations

Q ARE THERE CERTAIN OTHER CONDITIONS THAT THE COMMISSION MAY WISH TO CONSIDER CONCERNING THE APPROVAL OF THE PROPOSED WWISC?

A Yes.

Q WHAT IS THE FIRST CONDITION YOU SUGGEST THAT THE COMMISSION CONSIDER IN ITS REVIEW AND APPROVAL OF THE PROPOSED WWISC?

A I recommend that the Commission review the make-up of a utility's customer classes to ensure that a utility recovers the costs of eligible infrastructure only from the customers that cause the utility to incur the costs of eligible infrastructure. This will allow the utility to avoid intra-class subsidization with respect to the recovery of the costs associated with eligible infrastructure.

Q WHAT IS ANOTHER CONDITION THAT THE COMMISSION MAY WANT TO CONSIDER?

A A utility may claim that surcharges will reduce the frequency of rate cases or reduce the need for rate increases. A possible condition for approving a surcharge could be that the utility agrees to not file for a base rate increase for a specified period of time. If a utility already has annual base rate case proceedings, a surcharge may not be necessary as the utility's rates are already being adjusted on a frequent basis.

Q WHAT IS THE NEXT CONDITION THAT THE COMMISSION MAY WANT TO CONSIDER WHEN APPROVING A SURCHARGE?

A A utility's return on equity is the return that investors require in order to invest in the utility. A reasonable return on equity for a utility is authorized by the Commission in a formal base rate case proceeding. A reduction in a utility's Commission-approved return on equity may be appropriate if a surcharge is approved. As a result of utilizing a surcharge to recover its costs or expenses from its customers, a portion of a utility's cost recovery risk is transferred from the utility and its investors to its customers. With the use of a surcharge, the risk of cost recovery for a particular cost or expense is now being borne by a utility's customers.

Q ARE THERE ANY OTHER CONDITIONS THE COMMISSION MAY WANT TO CONSIDER WHEN APPROVING A SURCHARGE?

A Yes. Future maintenance expenses may decrease if a utility's capital investment in new infrastructure improves efficiency on the utility's system. The benefit of lower maintenance costs may not be reflected within a surcharge that recovers the utility's investment in eligible infrastructure. Replacement of aging infrastructure or obsolete

plant can produce efficiencies such as reducing future O&M costs. If the cost of the capital investment is recovered through a surcharge, these efficiencies may not be captured in the surcharge. Therefore, the Commission may wish to consider the inclusion of an efficiency factor in the WWISC to reflect increased O&M efficiencies associated with new infrastructure.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes, it does.

Qualifications of Brian C. Collins

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.

Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?

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.

Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

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 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, 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.

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Exhibit BCC-1
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Recognition of Base Rate Test-Year Depreciation Expense in Setting Total Revenue Requirement (Base Rates + Surcharge)
Incremental Rate Base = Test Year Depreciation Expense

Line	Year	Distribution Main Gross Plant	Distribution Main Depreciation Expense	Distribution Main Accumulated Depreciation	Distribution Main Rate Base	Annual Distribution Replacement Infrastructure Rate Base	Utility's Cumulative Distribution Replacement Infrastructure Rate Base	Total Rate Base in Rates (Base + Surcharge)	Return on Total Rate Base	Total Revenue Requirement	Surcharge Revenue Requirement
		$ million (1)	$ million (2)	$ million (3)	$ million (4) = (1) + (3)	$ million (5)	$ million (6)	$ million (7) = (4) + (6)	% (8)	$ million (9) = (7) x (8)	$ million (10) = (9) - $8.0
1	Base Rates - Test Year	$ 150.00	$ (10.00)	$ (50.00)	$ 100.00	$ -	$ -	$ 100.00	8%	$ 8.00	$ -
2	Year 1 - Accounting	$ 150.00	$ (10.00)	$ (60.00)	$ 90.00	$ 10.00	$ 10.00	$ 100.00	8%	$ 8.00	$ -
3	Year 2 - Accounting	$ 150.00	$ (10.00)	$ (70.00)	$ 80.00	$ 10.00	$ 20.00	$ 100.00	8%	$ 8.00	$ -
4	Year 3 - Accounting	$ 150.00	$ (10.00)	$ (80.00)	$ 70.00	$ 10.00	$ 30.00	$ 100.00	8%	$ 8.00	$ -
5	Year 4 - Accounting	$ 150.00	$ (10.00)	$ (90.00)	$ 60.00	$ 10.00	$ 40.00	$ 100.00	8%	$ 8.00	$ -
6	Year 5 - Accounting	$ 150.00	$ (10.00)	$ (100.00)	$ 50.00	$ 10.00	$ 50.00	$ 100.00	8%	$ 8.00	$ -

Recognition of Base Rate Test-Year Depreciation Expense in Setting Total Revenue Requirement (Base Rates + Surcharge)
Incremental Rate Base > Test Year Depreciation Expense

Line	Year	Distribution Main Gross Plant	Distribution Main Depreciation Expense	Distribution Main Accumulated Depreciation	Distribution Main Rate Base	Annual Distribution Replacement Infrastructure Rate Base	Utility's Cumulative Distribution Replacement Infrastructure Rate Base	Total Rate Base in Rates (Base + Surcharge)	Return on Total Rate Base	Total Revenue Requirement	Surcharge Revenue Requirement
		$ million (1)	$ million (2)	$ million (3)	$ million (4) = (1) + (3)	$ million (5)	$ million (6)	$ million (7) = (4) + (6)	% (8)	$ million (9) = (7) x (8)	$ million (10) = (9) - $8.0
7	Base Rates - Test Year	$ 150.00	$ (10.00)	$ (50.00)	$ 100.00	$ -	$ -	$ 100.00	8%	$ 8.00	$ -
8	Year 1 - Accounting	$ 150.00	$ (10.00)	$ (60.00)	$ 90.00	$ 15.00	$ 15.00	$ 105.00	8%	$ 8.40	$ 0.40
9	Year 2 - Accounting	$ 150.00	$ (10.00)	$ (70.00)	$ 80.00	$ 15.00	$ 30.00	$ 110.00	8%	$ 8.80	$ 0.80
10	Year 3 - Accounting	$ 150.00	$ (10.00)	$ (80.00)	$ 70.00	$ 15.00	$ 45.00	$ 115.00	8%	$ 9.20	$ 1.20
11	Year 4 - Accounting	$ 150.00	$ (10.00)	$ (90.00)	$ 60.00	$ 15.00	$ 60.00	$ 120.00	8%	$ 9.60	$ 1.60
12	Year 5 - Accounting	$ 150.00	$ (10.00)	$ (100.00)	$ 50.00	$ 15.00	$ 75.00	$ 125.00	8%	$ 10.00	$ 2.00

Exhibit BCC-1
Page 2 of 2

No Recognition of Base Rate Test-Year Depreciation Expense in Setting Total Revenue Requirement (Base Rates + Surcharge)
Incremental Rate Base = Test Year Depreciation Expense

Line	Year	Distribution Main Gross Plant	Distribution Main Depreciation Expense	Distribution Main Accumulated Depreciation	Distribution Main Rate Base	Annual Distribution Replacement Infrastructure Rate Base	Utility's Cumulative Distribution Replacement Infrastructure Rate Base	Total Rate Base in Rates (Base + Surcharge)	Return on Total Rate Base	Total Revenue Requirement	Surcharge Revenue Requirement	Overcharge to Customers
		$ million (1)	$ million (2)	$ million (3)	$ million (4) = (1) + (3)	$ million (5)	$ million (6)	$ million (7) = (4) + (6)	% (8)	$ million (9) = (7) x (8)	$ million (10) = (9) - $8.0	$ million (11)
1	Base Rates - Test Year	$ 150.00	$ (10.00)	$ (50.00)	$ 100.00	$ -	$ -	$ 100.00	8%	$ 8.00	$ -	$ -
2	Year 1 - Accounting	$ 150.00	$ -	$ (50.00)	$ 100.00	$ 10.00	$ 10.00	$ 110.00	8%	$ 8.80	$ 0.80	$ 0.80
3	Year 2 - Accounting	$ 150.00	$ -	$ (50.00)	$ 100.00	$ 10.00	$ 20.00	$ 120.00	8%	$ 9.60	$ 1.60	$ 1.60
4	Year 3 - Accounting	$ 150.00	$ -	$ (50.00)	$ 100.00	$ 10.00	$ 30.00	$ 130.00	8%	$ 10.40	$ 2.40	$ 2.40
5	Year 4 - Accounting	$ 150.00	$ -	$ (50.00)	$ 100.00	$ 10.00	$ 40.00	$ 140.00	8%	$ 11.20	$ 3.20	$ 3.20
6	Year 5 - Accounting	$ 150.00	$ -	$ (50.00)	$ 100.00	$ 10.00	$ 50.00	$ 150.00	8%	$ 12.00	$ 4.00	$ 4.00

No Recognition of Base Rate Test-Year Depreciation Expense in Setting Total Revenue Requirement (Base Rates + Surcharge)
Incremental Rate Base > Test Year Depreciation Expense

Line	Year	Distribution Main Gross Plant	Distribution Main Depreciation Expense	Distribution Main Accumulated Depreciation	Distribution Main Rate Base	Annual Distribution Replacement Infrastructure Rate Base	Utility's Cumulative Distribution Replacement Infrastructure Rate Base	Total Rate Base in Rates (Base + Surcharge)	Return on Total Rate Base	Total Revenue Requirement	Surcharge Revenue Requirement	Overcharge to Customers
		$ million (1)	$ million (2)	$ million (3)	$ million (4) = (1) + (3)	$ million (5)	$ million (6)	$ million (7) = (4) + (6)	% (8)	$ million (9) = (7) x (8)	$ million (10) = (9) - $8.0	$ million (11)
7	Base Rates - Test Year	$ 150.00	$ (10.00)	$ (50.00)	$ 100.00	$ -	$ -	$ 100.00	8%	$ 8.00	$ -	$ -
8	Year 1 - Accounting	$ 150.00	$ -	$ (50.00)	$ 100.00	$ 15.00	$ 15.00	$ 115.00	8%	$ 9.20	$ 1.20	$ 0.80
9	Year 2 - Accounting	$ 150.00	$ -	$ (50.00)	$ 100.00	$ 15.00	$ 30.00	$ 130.00	8%	$ 10.40	$ 2.40	$ 1.60
10	Year 3 - Accounting	$ 150.00	$ -	$ (50.00)	$ 100.00	$ 15.00	$ 45.00	$ 145.00	8%	$ 11.60	$ 3.60	$ 2.40
11	Year 4 - Accounting	$ 150.00	$ -	$ (50.00)	$ 100.00	$ 15.00	$ 60.00	$ 160.00	8%	$ 12.80	$ 4.80	$ 3.20
12	Year 5 - Accounting	$ 150.00	$ -	$ (50.00)	$ 100.00	$ 15.00	$ 75.00	$ 175.00	8%	$ 14.00	$ 6.00	$ 4.00