

**REBUTTAL TESTIMONY OF
HAROLD J. SMITH, VICE PRESIDENT
RAFTELIS FINANCIAL CONSULTANTS, INC.**

for

**PROVIDENCE WATER SUPPLY BOARD
DOCKET # 4618**

December 2016

1 **INTRODUCTION**

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

3 A. My name is Harold J. Smith and my business address is, 1031 South Caldwell Street, Suite
4 100, Charlotte, North Carolina 28203.

5
6 **Q. Are you the same Harold Smith who submitted pre-filed direct testimony in these
7 proceedings?**

8 A. Yes, I am.

9
10 **Q. Have you had an opportunity to review the pre-filed testimony submitted by the Division,
11 Kent County Water Authority, and Bristol County Water Authority?**

12 A. Yes. I have reviewed the testimonies submitted by Mr. Mierzwa and Mr. Smith on behalf of
13 the Division of Utilities and Carriers ("the Division"), the testimony submitted by Mr. Woodcock
14 on behalf of the Kent County Water Authority ("KCWA") and the testimony of Ms. Marchand on
15 behalf of Bristol County Water Authority ("BCWA").

16
17 **Q. Please describe the purpose of your testimony.**

18 A. I will respond to some of the issues and conclusions contained in the pre-filed direct testimony
19 of the Division, KCWA and BCWA.

20
21 **Q. What issues will you address in this rebuttal testimony?**

22 A. The Division, as well as the intervening parties, raised issues regarding the cost of service study
23 which determined the proposed rates in my direct testimony. The issues raised by each party differ
24 somewhat, so I will address each party's issues in turn.

DIVISION ISSUES

1
2
3 **Q. Very well, what issues were raised by the Division in Mr. Mierzwa's direct testimony?**

4 A. Mr. Mierzwa summarizes his commentary on the Cost of Service Study (COSS) on page 3 of
5 his testimony. Specifically, he comments that:

- 6 1. The process of verifying Providence Water's asset values is not complete, and that he
7 will provide recommendations regarding asset values in his rebuttal testimony.
- 8 2. The functionalization of bad debt expense (Account 63560) is unreasonable, but will be
9 accepted due to offsetting factors (i.e. the impact on the fixed service charge).
- 10 3. The COSS proposed by Providence Water in its direct testimony is reasonable.
- 11 4. The 15 percent increase in fire protection rates should be approved regardless of the
12 approved increase in Providence Water's overall revenue requirement.

13
14 I would like to address comments 1, 2 and 4 briefly.

15
16 **Q. What is your response regarding the issue of asset values?**

17 A. As all of the parties are well aware, the importance of the asset values relates to allocating
18 Providence Water's rate year capital costs. In the past, this has been done via allocators
19 developed from net plant investment (gross plant, less accumulated depreciation). Following
20 Dk. 4406, Providence Water was required to have an independent study performed to verify its
21 asset records. This was done primarily to determine the value of assets which were contributed
22 to Providence Water. In the end, after removing accumulated depreciation and contributions
23 from gross plant, some categories of assets had negative values. Others were almost completely
24 depreciated. Problematic asset records are not uncommon for municipal water utilities, but the
25 resulting net plant values call into question using net plant as a basis for allocating capital costs.

26
27 In his direct testimony, Mr. Woodcock proposed using gross plant to allocate capital costs, rather
28 than net plant. Providence Water is amenable to this approach, given that the majority of the
29 problem related to asset value appears to stem from the accumulated depreciation and

1 contribution figures. I have utilized gross plant values in my updated COSS model
2 accompanying this testimony.

3
4 **Q. Mr. Smith, do you agree with Mr. Mierzwa that the allocation of bad debt is**
5 **unreasonable?**

6 A. Not necessarily. While bad debt represents the failure to recover all of Providence Water's
7 functional costs, it is not uncommon to treat bad debt as somewhat of a fixed cost of providing
8 water service, and include it in the fixed service charge. On the other hand, Mr. Mierzwa's point
9 regarding the impact on the overall fixed service charge is well taken. If bad debt were
10 reallocated to all retail costs (rather than just billing and meters and services), this would reduce
11 the fixed service charge. However, many allocators have already been developed in past
12 Dockets to address concerns regarding the fixed service charge. I agree with Mr. Mierzwa that,
13 given the history of allocations to retail fixed service charge, it is not necessary to revisit the bad
14 debt allocation at this time.

15
16 **Q. Mr. Smith, do you have any comments with respect to the Mr. Mierzwa's proposal for**
17 **the fire protection service charge?**

18 A. I agree that fire protection charges should be increased by 15 percent regardless of the overall
19 revenue increase. As in Docket 4406, the fire protection rates are under-recovering their cost of
20 service. While recovering the full COS associated with fire protection could constitute rate
21 shock, Providence Water should move to align fire protection revenue recovery with cost of
22 service over time.

23
24 **KENT COUNT WATER AUTHORITY ISSUES**

25
26 **Q. Mr. Smith, what issues did Kent County's expert, Chris Woodcock raise in his direct**
27 **testimony?**

28 A. Mr. Woodcock's testimony focuses on the following issues related to the COSS:

- 29 1. Allocation of Central Operations Facility (COF) costs
30 2. Allocation of East Smithfield Costs
31 3. Asset Values

1 4. Adjustment to Kent County Water Purchases

2
3 I would like to address each issue individually.

4
5 **CENTRAL OPERATIONS FACILITY**

6
7 **Q. Very well, what issues has Mr. Woodcock raised regarding the allocation of the Central**
8 **Operations Facility (COF)?**

9 A. Mr. Woodcock's maintains that the costs associated with the COF should be allocated based
10 on the proposed methodology that was discussed (but not agreed to) in Providence Water's most
11 recent abbreviated rate filing (Docket 4571), and that absent such an allocation, all COF costs
12 should be allocated to retail only.

13
14 **Q. Mr. Smith, what methodology did the parties discuss as a basis for allocating COF costs**
15 **during the proceedings for Docket 4571?**

16 A. The following quote from Mr. Woodcock's direct testimony indicates what the parties were
17 considering during Docket 4571:

18
19 "In its next general rate filing, Providence Water will add the value of the new COF assets
20 to the total assets used for the allocation of debt service. The new COF net asset value will
21 be assigned to various functions including: administration, customer service (including meter re-
22 ading, billing, collection, customer service representatives, and customer accounting),
23 meters and metering, hydrants/fire protection, storage, transportation equipment, other
24 tools and equipment, distribution mains, transmission mains, and other functions, as appli-
25 cable based on the use of the asset considering factors such as numbers of employees by
26 function, square footage of garage or work space by function, etc. Once assigned to func-
27 tions, the costs assigned to each function will be allocated to cost of service categories based on t
28 he allocation methodology for like functions or categories as presented on Schedule JDM-
29 24 Settlement from the settlement agreement in Docket No. 4406. It is recognized that some

1 space in the new facility cannot not be directly functionalized and allocated (e.g., central heating
2 and air conditioning, employee parking, etc.) and this space will not be included in the
3 calculation of allocation percentages used for the overall COF investment. (This space will be
4 allocated in proportion to the directly assignable space.)”

5

6 **Q. Mr. Smith, is this methodology reasonable?**

7 A. I believe it is, but only to the extent that the data are available to make such determinations.

8

9 **Q. Mr. Smith, are the data available to make the determinations as indicated in the quote
10 above?**

11 A. It is my understanding that such data are not available at this time.

12

13 **Q. In that case, do you agree that the COF should be considered a 100 percent retail cost?**

14 A. I do not. The COF is a capital asset, which will be used primarily to ensure effective
15 operation of the Providence Water system, which includes both functions and services that are
16 retail only and others that are common to all (retail and wholesale assets). To argue that the
17 wholesale customers receive no benefit from such an asset is unreasonable. Mr. Woodcock
18 himself admits that at least some benefit is likely shared (“it is possible that some limited
19 administrative functions would be housed in the COF”). The current default position for
20 allocating the COF should be maintained until COF is in use and the necessary data are available
21 to perform the allocations envisioned by the parties in Docket 4571.

22

23 **Q. Did either the Division or BCWA raise any issues regarding the allocation of the COF?**

24 A. No, only KCWA raised this issue.

25

26 **ALLOCATION OF EAST SMITHFIELD COSTS**

27

28 **Q. Mr. Smith, please briefly describe the East Smithfield situation.**

29 A. East Smithfield is currently a wholesale customer of Providence Water. As of the rate year
30 however, Providence Water will have acquired East Smithfield’s water customers. These

1 customers will be then pay Providence Water's retail rates, just like Providence Water's current
2 retail customers.

3
4 **Q. What issues has Mr. Woodcock raised regarding the allocation of the East Smithfield**
5 **costs?**

6 A. Mr. Woodcock maintains that the costs associated with service to East Smithfield should be
7 allocated 100 percent to retail because they are associated with service to retail customers.

8
9 **Q. Once service is provided will customers in East Smithfield be materially different from**
10 **any other retail customer?**

11 A. They will not.

12
13 **Q. Does the current COS methodology provide for a reasonable allocation of costs between**
14 **retail and wholesale based on proportionate use of the Providence Water System?**

15 A. It does. If Providence Water were already serving these customers, it is unlikely that Mr.
16 Woodcock would be questioning the costs to serve them specifically. Nor is Mr. Woodcock
17 investigating the specific costs to serve any of Providence Water's existing retail customers.
18 Ultimately, Providence Water is treating East Smithfield customers like all of its existing retail
19 customers. Accordingly, the costs of providing service to East Smithfield should be allocated
20 similar to the rest of Providence Water's operating costs.

21
22 **ASSET VALUES**

23 **Q. What issues has Mr. Woodcock raised regarding the use of asset values in this case?**

24 A. Mr. Woodcock correctly indicates that net plant investment forms the basis for the allocation
25 of a large proportion of Providence Water's rate year costs. Similar to my discussion above, he
26 agrees that the reliability of historical records on accumulated depreciation and contributions
27 undermines confidence in using net plant investment as a basis for cost allocation.

1 **Q. Has Mr. Woodcock proposed a solution to the issues mentioned above?**

2 A. Yes. Mr. Woodcock has proposed using gross plant investment as the basis for developing
3 allocators K1, K2, L and T, which are used to allocate capital costs.

4

5 **Q. Is Mr. Woodcock's solution reasonable?**

6 A. It is. In the absence of reliable accumulated depreciation and contribution data, gross plant
7 investment provides the next best alternative for capital costs allocation.

8

9 **Q. Do you have any other recommendations regarding asset values?**

10 A. Yes. Upon reviewing the impacts of the Mr. Woodcock's proposal we became aware of an
11 allocator that should be changed to more fairly allocate the asset values. Account 33040
12 represents the value of assets associated with distribution reservoirs and standpipes. In the past,
13 and in our original filing, these assets have been allocated using allocator AA, which includes an
14 approximate allocation of 44 percent to wholesale based on volume. However, these assets
15 should have been allocated to the retail distribution system. Since this asset category was over
16 50 percent depreciated, the impact of the misallocation was much smaller when accumulated
17 depreciation was included and the misallocation went unnoticed. When gross plant is used
18 however, the impact of using AA versus a retail only allocator (such as TD) becomes apparent.
19 Consequently, we are proposing that Account 33040 be allocated using TD, rather than AA.

20

21 **ADJUSTMENT TO KENT COUNTY WATER PURCHASES**

22

23 **Q. Mr. Smith, please briefly describe the issue Mr. Woodcock has raised regarding**
24 **Providence Water's pro-forma projection of Kent County's water purchases.**

25 A. Upon reviewing Kent County's rate filing in Docket 4611 and after discussing with
26 Providence Water staff, I decided it would be prudent to adjust Kent County's volumes
27 downward. As the Commission is aware, typically the three-year average is used to for
28 wholesale pro-forma water sales. In general, Kent County's water purchases have declined and
29 the expectation is that this trend will continue. Accordingly, I used the pro-forma projections of

1 Kent County purchases from its recent rate filing (Docket 4611). Mr. Woodcock correctly
2 identifies some issues with the number that was used.

3

4 **Q. What volume is Mr. Woodcock proposing for Kent County's pro-forma purchases from**
5 **Providence Water?**

6 A. Mr. Woodcock has proposed that Kent County's purchases from FYE 6/30/2016 (2,381,377
7 ccf) be used as the pro-forma volume.

8

9 **Q. Do you agree that this volume is reasonable?**

10 A. I do. Given that Kent County's volumes are generally decreasing; more recent data are likely
11 a better indicator of what will occur during the rate year than the three-year average.

12

13

BRISTOL COUNTY ISSUES

14

15 **Q. Mr. Smith, would you briefly describe the issues raised by Ms. Marchand on behalf of**
16 **Bristol County Water Authority?**

17 A. Ms. Marchand's testimony focuses on the following issues related to the COSS:

18 1. Central Operations Facility (COF) costs

19 2. Payment in Lieu of Taxes

20 3. Unaccounted for Water Allocation

21 4. Unidirectional Flushing Program

22

CENTRAL OPERATIONS FACILITY

24

25 **Q. Mr. Smith, what issues has Ms. Marchand raised regarding the Central Operations**
26 **Facility?**

27 A. Ms. Marchand is concerned with the overall cost of the facility relative to the original
28 estimates. This issue will be addressed by other Providence Water witnesses.

29

1 **Q. Has Ms. Marchand raised any issues with regard to the proposed allocation of COF**
2 **costs, as Mr. Woodcock did?**

3 A. Ms. Marchand's direct testimony does not address the allocation of COF costs.
4

5 **PAYMENT IN LIEU OF TAXES**
6

7 **Q. Mr. Smith, what issues has Ms. Marchand raised regarding the PILOT on the COF?**

8 A. Ms. Marchand argues, along with Mr. Woodcock, that the PILOT should not be included as
9 a rate year cost. This issue will be addressed by other Providence Water witnesses.
10

11 **UNACCOUNTED FOR WATER (UFW) ALLOCATION**
12

13 **Q. Mr. Smith, what issues has Ms. Marchand raised regarding the UFW is used in the**
14 **COS?**

15 A. Ms. Marchand argues, along with Mr. Woodcock, that the UFW calculation does not
16 properly distinguish between the various sources of UFW (i.e. flushing, construction, meter
17 slippage, etc.).
18

19 **Q. Mr. Smith, do you have any response to this issue?**

20 A. In general, it is reasonable to distinguish between the sources of UFW to the extent that good
21 data are available to make such a distinction. The reliability and availability of such data will be
22 addressed by other Providence Water witnesses.
23

24 **Q. Mr. Smith, do you have any other recommendations on the UFW issue?**

25 A. I do. In the course of responding to data requests, Providence Water revised some of
26 historical UFW figures. I recommend the figures from BCWA 4-1b be incorporated into the
27 COS model for the purpose of the UFW determination and allocation.
28
29
30

1 **UNIDIRECTIONAL FLUSHING**

2

3 **Q. Mr. Smith, what issues has Ms. Marchand raised regarding the unidirectional flushing**
4 **program costs which are included in the COS?**

5 A. Ms. Marchand argues that this program only benefits retail customers and its costs should
6 not be allocated to the wholesale customer class.

7

8 **Q. Mr. Smith, do you have any response to this issue?**

9 A. My position on this issue is captured by Providence Water's response to BCWA 1-30:

10

11 "A small portion of the costs associated with the Unidirectional Flushing Program (UFP) are
12 allocated to the wholesale customers; however, determining the exact amount is very difficult
13 because the costs associated with the UDF are reflected in cost line items that also include costs
14 that are not associated with the UDF. Most of the UDF costs are contained within the
15 Transmission & Distribution division cost category and approximately 2% of the Transmission
16 & Distribution costs are allocated to the wholesale class. This allocation reflects that while the
17 retail classes are the primary beneficiary of the costs incurred to maintain the transmission and
18 distribution systems, the wholesale class does receive some benefit."

19

20 **Q. Mr. Smith, have you prepared any schedules to accompany your testimony?**

21 A. Yes, attached is a revised set of rate models schedules that include the revisions mentioned in
22 my testimony. Additionally, the attached schedules reflect the changes to Pro-forma Rate Year
23 expenses addressed in the testimony of Nancy Parillo.

24

25 **Q. Does this conclude your testimony?**

26 A. Yes.

Providence Water
Rate Year Ending December 31, 2017
Test Year Ended June 30, 2015

Normalized Test-Year and Rate Year

Schedule HJS-1 Rebuttal	Cost of Service Summary
Schedule HJS-2 Rebuttal	Adjusted Test Year Revenue Under Existing Rates
Schedule HJS-3 Rebuttal	Pro-Forma Revenue Under Existing Rates
Schedule HJS-4 Rebuttal	Revenue Requirements
Schedule HJS-5 Rebuttal	Allocation Factor Summary
Schedule HJS-6 Rebuttal	Allocation Factor Detail
Schedule HJS-7 Rebuttal	Cost Allocation Summary
Schedule HJS-8 Rebuttal	Units of Service
Schedule HJS-9 Rebuttal	Unit Cost of Service
Schedule HJS-10 Rebuttal	Cost Distribution to Customer Class
Schedule HJS-11 Rebuttal	Proposed Rates and Impacts
Schedule HJS-11A Rebuttal	Summary of Rates
Schedule HJS-12 Rebuttal	Comparison of Revenues by Customer Class
Schedule HJS-13 Rebuttal	Typical Bill Comparison
Schedule HJS-14 Rebuttal	Revenue Proof
Schedule HJS-15 Rebuttal	Projected Volumes
Schedule HJS-16 Rebuttal	Allocation of Plant Investment
Schedule HJS-17 Rebuttal	Inch-Mile and Lost and Unaccounted-For Water Calculations
Schedule HJS-18 Rebuttal	Development of Factors N, NO and NP
Schedule HJS-19 Rebuttal	T&D Labor Allocators
Schedule HJS-20 Rebuttal	Retail Service Charge Calculation
Schedule HJS-21 Rebuttal	Providence Only Fire Protection Charge Calculation
Schedule HJS-22 Rebuttal	Private Fire Service Charge Calculation
Schedule HJS-23 Rebuttal	Public Fire Protection Charge Calculation

**Schedule HJS-1 Rebuttal
Cost of Service Summary
Rate Year Ending December 31, 2017**

	Adjusted Test Year	Combined Adjustments	Pro-Forma Old Rates	Additional Revenue Generated	Pro-Forma New Rates
Revenue					
Service Charge	\$ 7,367,470	\$ 236,052	\$ 7,603,522	\$ 25,481	\$ 7,629,003
East Smithfield Debt Surcharge	-	-	-	85,217	85,217
Retail Sales	38,173,132	1,031,751	39,204,882	5,960,897	45,165,779
Wholesale Sales	17,732,706	(1,370,414)	16,362,292	1,097,353	17,459,645
Private Fire Protection	2,576,961	-	2,576,961	386,544	2,963,505
Retail FPSC	1,252,391	-	1,252,391	187,859	1,440,250
Public Fire Protection	1,124,390	-	1,124,390	168,602	1,292,992
Miscellaneous Revenue	1,083,232	58,679	1,141,911	-	1,141,911
Other	-	-	-	-	-
TOTAL REVENUE	\$ 69,310,282	\$ (43,932)	\$ 69,266,350	\$ 7,911,953	\$ 77,178,302
Total Rate Revenues	\$ 68,227,050	\$ (102,611)	\$ 68,124,439	\$	\$ 76,036,391
Expenses					
Operations					
Operations and Maintenance	\$ 30,843,233	\$ 2,833,099	\$ 33,676,332	\$	\$ 33,676,332
Insurance	1,802,547	534,235	2,336,782		2,336,782
Chemical & Sludge	4,500,000	(1,700,000)	2,800,000		2,800,000
City Service	839,167	118,233	957,400		957,400
Property Taxes	6,540,728	416,455	6,957,183		6,957,183
Payment in Lieu of Taxes	-	326,000	326,000		326,000
Capital Reimbursement	(2,143,087)	(118,727)	(2,261,814)		(2,261,814)
Net Operations	\$42,382,588	\$2,409,294	\$ 44,791,882	\$	\$ 44,791,882
Capital					
Capital Fund	\$ 2,127,000	\$ -	\$ 2,127,000	\$	\$ 2,127,000
Western Cranston	62,069	-	62,069		62,069
Infrastructure Replacement Fund	24,000,000	3,600,000	27,600,000		27,600,000
Cash-Funded AMR/Meter Repl. Fund	1,000,000	(500,000)	500,000		500,000
Equipment Replacement Fund	600,000	-	600,000		600,000
Revenue Reserve Fund (Restricted)	335,611	37,084	372,695		372,695
Capital	\$28,124,680	\$3,137,084	\$ 31,261,764		\$31,261,764
TOTAL EXPENSES	\$70,507,268	\$5,546,378.38	\$ 76,053,646		\$76,053,646
Operating Reserve (Unrestricted)	\$1,044,984		\$1,118,086		\$1,118,086
Total Revenue Requirements Including Reserve Funding	\$71,552,252		\$77,171,732		\$77,171,732
Revenues Over (Under) Expenses	(\$2,241,969.89)		(\$7,905,382)		\$6,570.72
Total Increase to Break-Even					11.41%
Rate Revenue Increase to Break-Even				\$ 7,911,953	11.60%

Notes:

Operating Reserve is ((A-B+C)-(D+E))*01

Revenue surplus results from rounding

Schedule HJS-2 Rebuttal
Adjusted Test Year Revenue Under Existing Rates
Rate Year Ending December 31, 2017

Adjusted Test Year Revenue Under Existing Rates
Rate Year Ending December 31, 2017

Retail Consumption Charges

Residential (HCF)	8,347,957	\$	3.044	\$	25,411,182
Commercial (HCF)	4,230,647		2.901		12,273,106
Industrial (HCF)	171,644		2.848		488,843
Total	12,750,248			\$	38,173,132

Wholesale Consumption Charges

Consumption (HCF)	13,694,224	\$	1.294904	\$	17,732,706
Gallons (Million)	10,243	\$	1,731.16	\$	17,732,706

Billing Unit	Units of Service	Current Rates	Service Charge Revenue
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Service Charges

5/8"	53,183	\$	7.89	\$	5,035,366
3/4"	10,839	\$	8.32	\$	1,082,166
1"	5,105	\$	9.58	\$	586,871
1.5"	1,497	\$	11.27	\$	202,454
2"	1,409	\$	15.91	\$	269,006
3"	87	\$	50.10	\$	52,304
4"	28	\$	62.77	\$	21,091
6"	89	\$	92.31	\$	98,587
8"	8	\$	126.08	\$	12,104
10"	4	\$	156.68	\$	7,521
12"	0	\$	187.28	\$	-
Total Monthly Service Charges	72,249			\$	7,367,470

Billing Unit	Units of Service (Providence Only)	Current Rates	Fire Protection Revenue
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Fire Protection Service Charge (Providence Only)

5/8"	25,513	\$	1.20	\$	367,387
3/4"	4,353	\$	1.80	\$	94,025
1"	2,008	\$	4.48	\$	107,950
1.5"	893	\$	11.95	\$	128,056
2"	851	\$	28.66	\$	292,676
3"	62	\$	77.62	\$	57,749
4"	19	\$	131.35	\$	29,948
6"	45	\$	268.67	\$	145,082
8"	3	\$	405.99	\$	14,616
10"	2	\$	620.93	\$	14,902
12"	-	\$	1,026.91	\$	-
Total Retail FPSC (Providence Only)	33,749			\$	1,252,391

Total Service Charge				\$	8,619,861
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Private Fire Service Charges

3/4"	3	\$	7.51	\$	270
1"	9	\$	8.88		959
1.5"	3	\$	10.93		393
2"	58	\$	16.21		11,282
4"	361	\$	69.28		300,121
6"	1,231	\$	112.95		1,668,497
8"	244	\$	171.07		500,893
10"	4	\$	238.31		11,439
12"	20	\$	319.69		76,726
16"	1	\$	531.68		6,380
Total	1,934			\$	2,576,961

Public Fire Service Charges

Hydrants (Excluding Providence)	2848	\$	394.80	\$	1,124,390
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Total Rate Revenues				\$	68,227,049.72
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Schedule HJS-3 Rebuttal
Adjusted Test Year Revenue Under Existing Rates
Rate Year Ending December 31, 2017

Pro-forma Revenue Under Existing Rates
Rate Year Ending December 31, 2017

Retail Consumption Charges

Residential (HCF)	8,662,545	\$	3.044	\$	26,368,787
Commercial (HCF)	4,237,383		2.901		12,292,647
Industrial (HCF)	190,818		2.848		543,449
Total	13,090,745			\$	39,204,882

Wholesale Consumption Charges

Consumption (HCF)	12,635,911	\$	1.294904	\$	16,362,292
Gallons (Million)	9,452	\$	1,731.16	\$	16,362,292

Billing Unit	Units of Service	Current Rates	Service Charge Revenue
Service Charges			
5/8"	55,532	\$ 7.89	\$ 5,257,770
3/4"	10,843	\$ 8.32	\$ 1,082,565
1"	5,167	\$ 9.58	\$ 593,998
1.5"	1,511	\$ 11.27	\$ 204,348
2"	1,428	\$ 15.91	\$ 272,634
3"	88	\$ 50.10	\$ 52,906
4"	28	\$ 62.77	\$ 21,091
6"	89	\$ 92.31	\$ 98,587
8"	8	\$ 126.08	\$ 12,104
10"	4	\$ 156.68	\$ 7,521
12"	0	\$ 187.28	\$ -
Total Monthly Service Charge	74,698		\$ 7,603,522

Billing Unit	Units of Service (Providence Only)	Current Rates	Fire Protection Revenue
Fire Protection Service Charge (Providence Only)			
5/8"	25,513	\$ 1.20	\$ 367,387
3/4"	4,353	\$ 1.80	\$ 94,025
1"	2,008	\$ 4.48	\$ 107,950
1.5"	893	\$ 11.95	\$ 128,056
2"	851	\$ 28.66	\$ 292,676
3"	62	\$ 77.62	\$ 57,749
4"	19	\$ 131.35	\$ 29,948
6"	45	\$ 268.67	\$ 145,082
8"	3	\$ 405.99	\$ 14,616
10"	2	\$ 620.93	\$ 14,902
12"	-	\$ 1,026.91	\$ -
Total Retail FPSC (Provide)	33,749		\$ 1,252,391

Total Service Charge \$ 8,855,913

Private Fire Service Charges

3/4"	3	\$ 7.51	\$ 270
1"	9	\$ 8.88	\$ 959
1.5"	3	\$ 10.93	\$ 393
2"	58	\$ 16.21	\$ 11,282
4"	361	\$ 69.28	\$ 300,121
6"	1,231	\$ 112.95	\$ 1,668,497
8"	244	\$ 171.07	\$ 500,893
10"	4	\$ 238.31	\$ 11,439
12"	20	\$ 319.69	\$ 76,726
16"	1	\$ 531.68	\$ 6,380
Total	1,934		\$ 2,576,961

Public Fire Service Charges

Hydrants (Excluding Provide)	2848	\$	394.80	\$	1,124,390
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Total Rate Revenues \$ 68,124,438.63

Schedule HJS-4 Rebuttal
 Revenue Requirements
 Rate Year Ending December 31, 2017

Account	Title	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale
Operation and Maintenance											
Source of Supply											
60110	Salaries + Wages - Emp	A	\$ 733,743	\$ 407,483	-	-	-	-	7,337	\$ -	318,922
60120	Salaries + Wages - Emp	A	432,789	240,015	-	-	-	-	4,322	-	187,851
60220	Payroll Clearing	A	-	-	-	-	-	-	-	-	-
60410	Employee Pension + Ben	A	350,620	194,716	-	-	-	-	3,506	-	152,398
60420	Employee Pension + Ben	A	324,238	180,094	-	-	-	-	3,243	-	140,953
61510	Purchase Power	A	-	-	-	-	-	-	-	-	-
61610	Fuel for Power Purch	A	-	-	-	-	-	-	-	-	-
62010	Material + Supplies	A	14,941	8,288	-	-	-	-	149	-	6,494
62020	Material + Supplies	A	78,633	43,669	-	-	-	-	786	-	34,178
63110	Contractual Services - Engineer	A	-	-	-	-	-	-	-	-	-
63120	Contractual Services - Engineer	A	-	-	-	-	-	-	-	-	-
63310	Contract Services - Legal	A	-	-	-	-	-	-	-	-	-
63420	Contract Services - Mgt. Fees	A	-	-	-	-	-	-	-	-	-
63510	Contractual Services - Other	A	59,471	33,027	-	-	-	-	595	-	25,849
63520	Contractual Services - Other	A	50,408	27,994	-	-	-	-	504	-	21,910
64210	Rental of Equipment	A	-	-	-	-	-	-	-	-	-
64220	Rental of Equipment	A	-	-	-	-	-	-	-	-	-
65010	Transportation Exp.	A	-	-	-	-	-	-	-	-	-
65020	Transportation Exp.	A	-	-	-	-	-	-	-	-	-
67510	Misc. Expenses	A	823	457	-	-	-	-	8	-	358
67520	Misc. Expenses	A	-	-	-	-	-	-	-	-	-
Total Source of Supply Expense			\$ 2,045,117	\$ 1,135,753	\$ -	\$ -	\$ -	\$ -	\$ 20,451	\$ -	\$ 888,914
Pumping Expenses											
60123	Salaries + Wages - Emp	NO	\$ -	\$ -	-	-	-	-	-	\$ -	-
60126	Salaries + Wages - Emp	NO	-	-	-	-	-	-	-	-	-
60423	Employee Pension + Ben	NO	-	-	-	-	-	-	-	-	-
60426	Employee Pension + Ben	NO	-	-	-	-	-	-	-	-	-
61523	Purchase Power	NP	798,361	503,148	-	-	-	-	-	-	295,213
61623	Fuel for Power Purch	NP	-	-	-	-	-	-	-	-	-
62023	Material + Supplies	NO	-	-	-	-	-	-	-	-	-
62026	Material + Supplies	NO	-	-	-	-	-	-	-	-	-
63123	Contractual Services - Engineer	NO	-	-	-	-	-	-	-	-	-
63126	Contractual Services - Engineer	NO	-	-	-	-	-	-	-	-	-
63523	Contractual Services - Other	NO	4,809	1,672	1,246	458	-	-	32	-	1,401
63526	Contractual Services - Other	NO	-	-	-	-	-	-	-	-	-
64223	Rental of Equipment	NO	-	-	-	-	-	-	-	-	-
64226	Rental of Equipment	NO	-	-	-	-	-	-	-	-	-
65023	Transportation Exp.	NO	-	-	-	-	-	-	-	-	-
67523	Misc. Expenses	NO	-	-	-	-	-	-	-	-	-
67526	Misc. Expenses	NO	-	-	-	-	-	-	-	-	-
Total Pumping Expenses			\$ 803,171	\$ 504,820	\$ 1,246	\$ 458	\$ -	\$ -	\$ 32	\$ -	\$ 296,614

Schedule HJS-4 Rebuttal
 Revenue Requirements
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Account	Title	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale
Water Treatment Expenses											
60130	Salaries + Wages - Emp	AA	\$ 2,108,621	670,982	500,037	\$ -	\$ -	\$ -	\$ 21,086	\$ -	916,516
60140	Salaries + Wages - Emp	AA	433,369	137,902	102,769	-	-	-	4,334	-	188,364
60430	Employee Pension + Ben	AA	1,276,768	406,279	302,772	-	-	-	12,768	-	554,949
60440	Employee Pension + Ben	AA	502,081	96,128	71,638	-	-	-	3,021	-	131,304
61530	Purchase Power	P	228,318	114,116	22,832	-	-	-	2,055	-	89,315
61630	Fuel for Power Purch	AA	195,348	62,161	46,325	-	-	-	1,953	-	84,908
61830	Chemicals	A	-	-	-	-	-	-	-	-	-
62030	Material + Supplies	AA	164,221	52,257	38,943	-	-	-	1,642	-	71,379
62040	Material + Supplies	AA	70,674	22,489	16,760	-	-	-	707	-	30,719
63130	Contractual Services - Engineer	AA	-	-	-	-	-	-	-	-	-
63240	Contract Services - Acctg	AA	-	-	-	-	-	-	-	-	-
63430	Contractual Services - Mgt. Fees	AA	-	-	-	-	-	-	-	-	-
63530	Contractual Services - Other	AA	135,629	43,138	32,163	-	-	-	1,356	-	58,951
63540	Contractual Services - Other	AA	116,434	37,050	27,611	-	-	-	1,164	-	50,608
64140	Rental Bldg/Real Prop	AA	-	-	-	-	-	-	-	-	-
64230	Rental of Equipment	AA	-	-	-	-	-	-	-	-	-
64240	Rental of Equipment	AA	-	-	-	-	-	-	-	-	-
65030	Transportation Exp.	AA	3,877	1,234	919	-	-	-	39	-	1,685
65640	Insurance Vehicle	AA	-	-	-	-	-	-	-	-	-
65830	Insurance - W/C	AA	-	-	-	-	-	-	-	-	-
65840	Insurance - W/C	AA	-	-	-	-	-	-	-	-	-
66730	Regularity Com Exp. -Other	AA	-	-	-	-	-	-	-	-	-
67530	Misc. Expenses	AA	150,943	48,031	35,794	-	-	-	1,509	-	65,607
67540	Misc. Expenses	AA	-	-	-	-	-	-	-	-	-
Total Treatment Expense			\$ 5,186,292	\$ 1,691,789	\$ 1,198,562	\$ -	\$ -	\$ -	\$ 51,635	\$ -	\$ 2,244,306

Schedule HJS-4 Rebuttal
 Revenue Requirements
 Rate Year Ending December 31, 2017

Account	Title	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale
Transmission + Dist. Expense:											
60150	Salaries + Wages - Emp	HM	\$ 823,842	\$ 181,428	135,205	\$ 128,684	\$ 260,900	8	\$ 100,203	\$ -	17,494
60160	Salaries + Wages - Emp	HM	3,417,615	752,631	560,884	533,749	1,082,314	35	415,680	-	72,321
60250	Payroll Clearing -Emp	HM	-	-	-	-	-	-	-	-	-
60260	Payroll Clearing -Emp	HM	-	-	-	-	-	-	-	-	-
60450	Employee Pension + Ben	HMY	482,773	259,210	79,231	75,398	-	-	58,719	-	10,216
60460	Employee Pension + Ben	HMY	2,109,535	1,132,648	346,208	329,459	-	-	256,580	-	44,641
60550	Overhead Rate Applied	HM	-	-	-	-	-	-	-	-	-
60560	Overhead Rate Applied	HM	-	-	-	-	-	-	-	-	-
61550	Purchase Power	P	-	-	-	-	-	-	-	-	-
62050	Material + Supplies	F	-	-	-	-	-	-	-	-	-
62060	Material + Supplies	F	318,956	120,669	89,926	85,576	-	-	6,379	-	16,407
62560	Inventory Clearing	HM	-	-	-	-	-	-	-	-	-
63150	Contractual Services - Engineer	HM	49,905	10,990	8,190	7,794	15,804	1	6,070	-	1,056
63350	Contractual Services - Legal T&D	HM	-	-	-	-	-	-	-	-	-
63460	Contractual Services - Mgt. Fees	HM	-	-	-	-	-	-	-	-	-
63550	Contractual Services - Other	C	-	-	-	-	-	-	-	-	-
63560	Contractual Services - Other	HOC	-	-	-	-	-	-	-	-	-
64150	Rental Building/Real Prop	HMC	861,242	-	-	-	861,242	-	-	-	-
64160	Rental Building/Real Prop	F	-	-	-	-	-	-	-	-	-
64250	Rental of Equipment	F	-	-	-	-	-	-	-	-	-
64260	Rental of Equipment	F	-	-	-	-	-	-	-	-	-
65050	Transportation Exp. T&D	F	1,700	643	479	456	-	-	34	-	87
65850	Insurance W/C	HM	-	-	-	-	-	-	-	-	-
65860	Insurance W/C	HM	-	-	-	-	-	-	-	-	-
65950	Insurance Other	HM	-	-	-	-	-	-	-	-	-
66750	Regulatory Com Exp - Other, T & D	F	-	-	-	-	-	-	-	-	-
66760	Regulatory Com Exp - Other, T & D	F	-	-	-	-	-	-	-	-	-
67550	Misc. Expenses	F	-	-	-	-	-	-	-	-	-
67560	Misc. Expenses	F	2,506	948	707	672	-	-	50	-	129
Total Transmission & Distribution			\$ 8,088,076	\$ 2,459,167	1,220,830	\$ 1,161,768	\$ 2,220,260	44	\$ 843,716	\$ -	162,291
Customer Accounts Expense:											
60170	Salaries + Wages - Emp	D	\$ 2,035,442	\$ -	-	-	\$ 1,017,721	\$ 1,017,721	\$ -	\$ -	-
60270	Payroll Clearing -Emp	D	-	-	-	-	-	-	-	-	-
60470	Employee Pension + Ben	DY	1,555,071	1,555,071	-	-	-	-	-	-	-
60570	Overhead Rate Applied	D	-	-	-	-	-	-	-	-	-
61670	Fuel for Power Purch	D	-	-	-	-	-	-	-	-	-
62070	Material + Supplies	D	6,867	-	-	-	4,433	4,433	-	-	-
63370	Contractual Services - Legal	D	-	-	-	-	-	-	-	-	-
63570	Contractual Services - Other	D	-	-	-	-	-	-	-	-	-
66070	Transportation Exp. -CAO	D	-	-	-	-	-	-	-	-	-
66870	Insurance - Other	D	-	-	-	-	-	-	-	-	-
66970	Insurance Other	D	-	-	-	-	-	-	-	-	-
67070	Bad Debt Expense - CAO	D	(315,600)	-	-	-	(157,800)	(157,800)	-	-	-
67570	Misc. Expenses	D	528,315	-	-	-	264,158	264,158	-	-	-
Total Customer Accounts			\$ 3,812,095	\$ 1,555,071	-	-	\$ 1,128,512	\$ 1,128,512	\$ -	\$ -	-

Schedule HJ.S-4 Rebuttal
 Revenue Requirements
 Rate Year Ending December 31, 2017

Account	Title	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale
Administrative and General											
60180	Salaries + Wages - Emp	Y	\$ 5,844,161	\$ 1,399,136	760,249	\$ 387,714	\$ 1,381,866	\$ 595,702	\$ 323,652	\$ -	\$ 995,842
60280	Payroll Clearing -Emp	Y	-	-	-	-	-	-	-	-	-
60380	Salaries + wages - Officers, Dir.	YY	4,249,488	1,017,359	552,803	281,920	1,004,802	433,155	235,338	-	724,111
60580	Employee Pension + Ben	Z	-	-	-	-	-	-	-	-	-
61580	Overhead Rate Applied	Z	436,787	180,526	59,130	26,962	70,370	20,111	20,677	-	81,012
61680	Purchase Power	Z	-	-	-	-	-	-	-	-	-
62080	Fuel for Power Purch	Z	509,890	186,538	68,711	31,332	81,773	23,370	24,027	-	94,140
63180	Material + Supplies	Z	-	-	-	-	-	-	-	-	-
63280	Contractual Services - Engineer	Y	-	-	-	-	-	-	-	-	-
63380	Contract Services - Acctg	Y	-	-	-	-	-	-	-	-	-
63480	Contractual Services - Legal	Y	75,072	17,973	9,766	4,980	17,751	7,652	4,158	-	12,792
63480	Contractual Services - Mgt. Fees	Y	-	-	-	-	-	-	-	-	-
63580	Contractual Services - Other	Y	1,709,038	408,156	222,324	113,381	404,106	174,204	94,647	-	291,219
64180	Rental Bldg/Real Prop	Z	-	-	-	-	-	-	-	-	-
64280	Rental of Equipment	Z	-	-	-	-	-	-	-	-	-
65080	Transportation Exp.	Z	4,642	1,698	625	285	744	213	219	-	857
65780	Ins. Gen. Liability	Y	-	-	-	-	-	-	-	-	-
65880	Insurance - W/C	Y	-	-	-	-	-	-	-	-	-
65980	Insurance Other	Y	-	-	-	-	-	-	-	-	-
66080	Advertising Expense	Z	-	-	-	-	-	-	-	-	-
66680	Reg Com Exp - Amort of Rate Case	Com Z	-	-	-	-	-	-	-	-	-
66780	Regulatory Com Exp -Other	Com Z	478,174	239,116	88,078	40,163	72,542	20,732	22,533	-	88,284
67580	Misc. Expenses	Z	452,830	165,480	60,954	27,795	72,542	20,732	21,315	-	83,513
	Total Administration + General		\$ 13,761,582	\$ 3,596,982	\$ 1,822,641	\$ 914,532	\$ 3,033,954	\$ 1,275,139	\$ 746,564	\$ -	\$ 2,371,771
Insurance Fund (857)											
65940	Insurance W/C - WTM	AA	-	-	-	-	-	-	-	-	-
65870	Insurance W/C - CAO	D	-	-	-	-	-	-	-	-	-
62080	Materials + Supplies - A&GO	Z	4,521	1,654	609	278	725	207	213	-	835
63180	Contractual Services-Engineer	Y	-	-	-	-	-	-	-	-	-
63380	Contract Services - Legal A&GO	Y	-	-	-	-	-	-	-	-	-
63580	Contract Services - Other A&GO	Y	-	-	-	-	-	-	-	-	-
65780	Injuries and Damages	YY	119,760	89,208	15,582	7,946	199,249	85,893	6,633	-	20,410
65880	Ins. Gen. Liability	Y	842,661	201,739	109,619	55,904	199,249	85,893	46,667	-	143,589
65880	Insurance-Other A&GO	Y	325,322	77,885	42,320	21,583	76,923	33,160	18,016	-	55,435
65880	Insurance - W/C	Y	1,008,758	241,504	131,226	66,923	238,523	102,824	55,865	-	171,892
67070	Bad Debt Expense-CAO	D	-	-	-	-	-	-	-	-	-
67580	Misc. Expense	Z	35,740	13,075	4,816	2,196	5,732	1,698	1,684	-	6,599
	Funding Requirement		-	-	-	-	-	-	-	-	-
	Total Insurance Fund	Com Z	\$ 2,336,782	\$ 605,065	\$ 304,173	\$ 164,830	\$ 521,152	\$ 223,723	\$ 129,079	\$ -	\$ 398,759
Chemical and Sludge Maintenance Fund (878)											
61830	Chemicals - WTO	A	1,932,359	1,017,598	-	-	-	-	18,324	-	796,438
62030	Materials + Supplies WTO	AA	-	-	-	-	-	-	-	-	-
62050	Materials + Supplies T&DO	F	-	-	-	-	-	-	-	-	-
63540	Contract Services - Other WTM	AA	1,908,918	511,972	381,538	-	-	-	16,089	-	699,319
	Funding Requirement		(641,278)	(356,133)	-	-	-	-	(6,413)	-	(278,733)
	Total Chemical and Sludge Maintenance Fund	A	\$ 2,800,000	\$ 1,173,437	\$ 381,538	\$ -	\$ -	\$ -	\$ 28,000	\$ -	\$ 1,217,024
TOTAL O&M											
			\$ 38,813,113	\$ 12,722,084	\$ 4,928,990	\$ 2,231,588	\$ 6,903,877	\$ 2,627,417	\$ 1,819,477	\$ -	\$ 7,579,679

Schedule HJS-4 Rebuttal
 Revenue Requirements
 Rate Year Ending December 31, 2017

Account	Title	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale
Other Expenditures											
Property Taxes- Other Local Govern.											
40820	Town of North Providence	F	\$ 314,077	\$ 118,823	\$ 88,550	\$ 84,266	\$ -	\$ -	\$ 6,282	\$ -	\$ 16,156
40821	Town of Glocester	A	61,133	33,950	-	-	-	-	611	-	26,572
40822	Town of West. Glocester	A	3,940	2,188	-	-	-	-	39	-	1,712
40823	Town Harmony	A	131	101	-	-	-	-	2	-	79
40824	Town Chepachet	A	343	79	-	-	-	-	1	-	62
40825	Town Scituate	A	6,008,724	3,336,935	-	-	-	-	60,087	-	2,611,702
40826	Town Warwick	A	-	-	-	-	-	-	-	-	-
40827	Town of Johnston	A	100,848	56,006	-	-	-	-	1,008	-	43,834
40828	Town of Foster	A	337,761	187,575	-	-	-	-	3,378	-	146,808
40829	City of Cranston	A	119,351	66,281	-	-	-	-	1,194	-	51,876
40830	City of West. Warwick	A	4,021	2,233	-	-	-	-	40	-	1,748
40831	Town of Smithfield	A	7,035	3,890	-	-	-	-	70	-	3,045
	Total Property Taxes		\$ 6,957,183	\$ 3,808,061	\$ 88,550	\$ 84,266	\$ -	\$ -	\$ 72,713	\$ -	\$ 2,903,593
Restricted Funds											
	Capital Fund	K2	\$ 2,127,000	\$ 773,246	\$ 429,607	\$ 236,329	\$ 139,800	\$ -	\$ 61,775	\$ -	\$ 486,244
	Western Cranston Fund (WCWDS Fund)	TD	62,069	25,289	18,846	17,934	-	-	-	-	-
	Infrastructure Replacement Fund (net of E. Smith	K1	27,545,053	11,416,225	6,342,721	3,489,160	-	-	-	-	6,296,947
	E. Smithfield Debt Service from IFR Fund	ES	54,947	-	-	-	-	-	-	54,947	-
	AMR/Meter Replacement Fund (net of E. Smithfic	C	172,537	-	-	-	472,537	-	-	-	-
	E. Smithfield Debt Service from IFR Fund	ES	27,463	-	-	-	-	-	-	27,463	-
	Equipment Replacement	K2	609,000	218,123	121,187	66,665	39,436	-	17,426	-	137,163
	Revenue Reserve Fund	RR	572,656	181,867	73,971	37,814	49,061	17,106	12,876	-	-
	Total Restricted Expenditures		\$ 31,261,764	\$ 12,614,750	\$ 6,986,332	\$ 3,847,902	\$ 700,834	\$ 17,106	\$ 92,076	\$ 82,411	\$ 6,920,354
	City Services Expense	Z	\$ 957,400	\$ 350,254	\$ 129,016	\$ 58,830	\$ 153,542	\$ 43,880	\$ 45,115	\$ -	\$ 176,763
	Payment in Lieu of Taxes (PILOT)	K2	326,000	118,514	65,845	36,221	21,427	-	9,468	-	74,525
	Capital Reimbursement	X4	(2,261,814)	(912,818)	(507,503)	(279,735)	(47,853)	-	(5,815)	-	(508,090)
	TOTAL OTHER EXPENDITURES		\$ 37,240,533	\$ 15,978,760	\$ 6,762,240	\$ 3,747,484	\$ 827,950	\$ 60,986	\$ 213,557	\$ 82,411	\$ 9,587,145
	Gross Revenue Requirements		\$ 76,053,646	\$ 28,700,844	\$ 11,691,230	\$ 5,979,072	\$ 7,731,827	\$ 2,688,404	\$ 2,033,034	\$ 82,411	\$ 17,146,824

Schedule HJS-4 Rebuttal
 Revenue Requirements
 Rate Year Ending December 31, 2017

Account	Title	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale
Non-Rate Revenues											
	New Meters	C	\$ 48,957	\$ -	\$ -	\$ -	\$ 48,957	\$ -	\$ -	\$ -	\$ -
	Lost or Stolen Meters	C	37,375	-	-	-	37,375	-	-	-	-
	Abandonment	A	750	417	-	-	-	-	8	-	326
	Admin Fee from NBC	D	25,000	-	-	-	12,500	12,500	-	-	-
	Misc. Accounts	A	3,485	1,935	-	-	-	-	35	-	1,515
	Narragansett Shut-Off	D	-	-	-	-	-	-	-	-	-
	Narragansett Shut-Off	D	48,263	-	-	-	24,131	24,131	-	-	-
	Road Restoration	TD	36,824	15,003	11,181	10,640	-	-	-	-	-
	Shut Off Service Charge	D	112,192	-	-	-	56,096	56,096	-	-	-
	Shut Off For Seasonal	D	832	-	-	-	416	416	-	-	-
	Shut Off Service Charge	D	-	-	-	-	-	-	-	-	-
	Subpoena	A	33	18	-	-	-	-	0	-	14
	Title Search Charge	D	22,494	-	-	-	11,247	11,247	-	-	-
	\$ Transaction at Closing	A	(24)	(13)	-	-	-	-	(0)	-	(10)
	Turn On Meter	C	75,714	-	-	-	75,714	-	-	-	-
	Scrap Meter Fees Garbage Pick-Up	C	-	-	-	-	-	-	-	-	-
	Other Misc.	A	7,131	3,960	-	-	-	-	71	-	3,099
	Rental Income	Z	35,991	13,167	-	2,212	5,772	1,650	1,696	-	6,645
	Interest on Delinquent Accounts	RR	407,331	198,769	80,846	41,328	53,620	18,696	14,072	-	13,670
	Forest Product Sales	A	31,450	17,465	-	-	-	-	314	-	4,729
	Bad Checks	A	10,880	6,042	-	-	-	-	109	-	-
	Federal Grants	A	-	-	-	-	-	-	-	-	-
	Net Loss Disposal Fixed Assets	A	(1,053)	(585)	-	-	-	-	(11)	-	(458)
	Misc. Revenue Water Lien	A	185,857	90,684	36,888	18,857	24,466	8,531	6,421	-	-
	State 1 Surcharge	RR	52,429	25,564	10,406	5,319	6,902	2,406	1,811	-	-
	Rebuttal Adjustment (1)	RR	\$ 1,141,911	\$ 372,457	\$ 144,171	\$ 78,356	\$ 357,196	\$ 135,673	\$ 24,527	\$ -	\$ 29,530
	Total Labor Related Expenses		\$ 9,984,820	\$ 2,390,441	\$ 1,298,895	\$ 662,414	\$ 2,360,934	\$ 1,017,764	\$ 552,963	\$ -	\$ 1,701,409
	Factor Y			23.94%	13.01%	6.63%	23.65%	10.19%	5.54%	0.00%	17.04%
	Total O&M Excluding A&G		\$ 27,040,620	\$ 9,892,513	\$ 3,643,904	\$ 1,661,581	\$ 4,336,608	\$ 1,239,347	\$ 1,274,215	\$ -	\$ 4,992,451
	Factor Z			36.58%	13.48%	6.14%	16.04%	4.58%	4.71%	0.00%	18.46%
	Total Capital Costs		\$ 31,261,764	\$ 12,614,750	\$ 6,986,332	\$ 3,847,902	\$ 700,834	\$ 17,106	\$ 92,076	\$ 82,411	\$ 6,920,354
	Factor X4			40.35%	22.35%	12.31%	2.24%	0.05%	0.29%	0.26%	22.14%

1) Increase miscellaneous revenues by \$52,429 per Division Direct

Schedule HJS-5 Rebuttal
Allocation Factor Summary
Rate Year Ending December 31, 2017

Allocation Factor Legend										
Allocation	Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surchage	Wholesale	Total
A	1% allocated to fire protection, remainder allocated to base and wholesale	55.53%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	43.47%	100.00%
P	10% allocated to maximum day, 90% allocated based on A	49.98%	10.00%	0.00%	0.00%	0.00%	0.90%	0.00%	39.12%	100.00%
AA	1% allocated to fire protection, remainder allocated to base, maximum day	31.82%	23.71%	0.00%	0.00%	0.00%	1.00%	0.00%	43.47%	100.00%
C	100% to Meters & Services	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Y	Based on Labor related O&M Expenses.	23.94%	13.01%	6.63%	23.65%	10.19%	5.54%	0.00%	17.04%	100.00%
YY	Reallocation from Billing and Collections and Meters and Services to base	57.78%	13.01%	6.63%	0.00%	0.00%	5.54%	0.00%	17.04%	100.00%
Com Y	Allocated Based on Methodology in Docket # 2048, Y - Labor Reallocated	42.53%	23.11%	11.79%	0.00%	0.00%	5.54%	0.00%	17.04%	100.00%
Com Z	Based on Total O&M expenses, except for Administrative & General	36.58%	13.48%	8.40%	16.04%	4.58%	4.71%	0.00%	18.46%	100.00%
Z	Allocated Based on Methodology in Docket # 2048, Z - O&M Reallocated f	50.01%	18.42%	8.40%	0.00%	0.00%	4.71%	0.00%	18.46%	100.00%
F	2% to Fire, Allocated to Base & Wholesale by Proportion of T&D Pipe in	37.83%	28.19%	26.83%	0.00%	0.00%	2.00%	0.00%	5.14%	100.00%
Gran	Cranton Taxes, 16% Allocator F, 84% Allocator A	52.70%	4.51%	4.29%	0.00%	0.00%	1.16%	0.00%	37.33%	100.00%
D	50% to Billing and Collections, 50% to Meters and Services	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%
DY	Allocation Factor D with Meters and Services, Billing and Collection Reallo	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
FP	100% Fire Protection	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%
HM	T&D Maintenance Based on 6 Yr. Average of Activities	22.02%	16.41%	15.62%	31.67%	0.00%	12.16%	0.00%	2.12%	100.00%
X1	T&D Salaries and Wages (3 Yr. Average of Factor HM)	22.04%	16.43%	15.63%	0.00%	0.00%	12.16%	0.00%	2.12%	100.00%
HMY	Reallocation from Billing and Collections and Meters and Services to Base	53.69%	16.41%	15.62%	0.00%	0.00%	12.16%	0.00%	2.12%	100.00%
HOC	T&D Contract Operations based on 6 Yr. Average of activities	37.83%	28.19%	26.83%	0.17%	0.00%	1.96%	0.00%	5.03%	100.00%
X2	T&D Contract Services Other (3 Yr. Average of Factor HOC)	37.83%	28.19%	26.83%	0.17%	0.00%	1.96%	0.00%	5.03%	100.00%
HMC	T&D Contract Maintenance Based on 6 Yr. Average of Activities	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
X3	T&D Contract Services Other (3 Yr. Average of Factor HMC)	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
K2	Allocated Based on Net Plant Investment	36.35%	20.20%	11.11%	6.57%	0.00%	2.90%	0.00%	22.86%	100.00%
K1	Allocated Based on Net Plant Investment, Meters and Fire Reallocated to I	41.45%	23.03%	12.67%	0.00%	0.00%	2.90%	0.00%	22.86%	100.00%
L	Based on Allocation of other Transmission & Distribution Plant except Sen	34.93%	26.03%	16.76%	0.00%	0.00%	6.85%	0.00%	15.44%	100.00%
T	Allocation of all Non-General Plant	37.70%	18.78%	10.34%	6.10%	0.00%	2.77%	0.00%	24.30%	100.00%
N	Allocation of Pumping Investment and Expenses	48.37%	8.93%	3.29%	0.00%	0.00%	0.89%	0.00%	38.52%	100.00%
NO	Allocation of Pumping and Investment Expenses Excluding Raw Water	34.76%	25.91%	9.53%	0.00%	0.00%	0.67%	0.00%	29.13%	100.00%
NP	Allocation Factor NO with Maximum Day and Maximum Hour reallocated t	63.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36.98%	100.00%
TD	Allocation of Base, Max Day and Max Hour of Retail only	48.80%	30.36%	28.89%	13.16%	4.59%	3.45%	0.00%	0.00%	100.00%
RR	Retail Revenue	48.80%	19.85%	10.15%	2.12%	0.00%	0.26%	0.00%	22.46%	100.00%
X4	Total Capital Fund Allocation	40.36%	22.44%	12.37%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
E5	East Smithfield Debt Service	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%

Allocation Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
Schedule HJS-6 Rebuttal									
Allocation Factor Detail									
Rate Year Ending December 31, 2017									

Factor	Calculation	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
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A										
1% allocated to fire protection, remainder allocated to base and wholesale based on consumption										
1% to Fire Protection										
Allocation to Fire Protection										
		1.00%								
Remaining % to be Allocated Between Base and Wholesale										
Allocation to Base and Wholesale on Consumption										
	Retail Consumption	13,090,745								
	Wholesale Consumption	12,636,911								
	Plus Lost Water	3,468,677								
	Retail Inch-Miles %	94.75%								
	Wholesale Inch-Miles %	5.25%								
	Retail Consumption (Including Lost Water)	16,377,354								
	Wholesale Consumption (Including Lost Water)	12,817,979								
	Retail %	56.10%								
	Wholesale %	43.90%								
	Base (99% x Retail % Above)	55.53%								
	Wholesale (99% x Wholesale % Above)	43.47%								
Factor A Allocation		55.53%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	43.47%	100.00%

P										
10% allocated to maximum day, 90% allocated based on A										
10% to Max Day										
Allocation to Max Day										
		10.00%								
Remainder to be Allocated Based on A										
Allocation Based on A										
	Base	55.53%	90.00%							
	Max Day	0.00%	49.98%							
	Max Hour	0.00%	0.00%							
	Meters	0.00%	0.00%							
	Billing	0.00%	0.00%							
	Fire	1.00%	0.90%							
	Wholesale	43.47%	39.12%							
	Total	100.00%	90.00%							
Factor P Allocation		49.98%	10.00%	0.00%	0.00%	0.00%	0.90%	0.00%	39.12%	100.00%

Allocation	Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
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AA 1% allocated to fire protection, remainder allocated to base, maximum day, and wholesale based on consumption

	1% to Fire Protection									
	Fire Protection Allocation	1.00%								
	Remaining % to be Allocated Between Base and Wholesale	99.00%								
	Allocation to Base and Wholesale on Consumption									
	Retail Consumption	13,090,745								
	Wholesale Consumption	12,635,911								
	Plus Lost Water	3,468,677								
	Retail Inch-Miles %	94.75%								
	Wholesale Inch-Miles %	5.25%								
	Retail Consumption (Including Lost Water)	16,377,364								
	Wholesale Consumption (Including Lost Water)	12,817,979								
	Retail %	56.10%								
	Wholesale %	43.90%								
	Retail Allocation to Split Between Base and Max Day (99% x Retail + Wholesale Allocation (99% x Wholesale % Above)	55.53%								
		43.47%								
	Allocation to Base and Max Day									
	Base Units (HCF/Day)	35,865								
	Max Day Units (HCF/Day)	26,728								
	Base %	57.30%								
	Max Day %	42.70%								
	Base Allocation (Retail Allocation x Base % Above)	31.82%								
	Max Day Allocation (Retail Allocation x Max Day % Above)	23.71%								
	Factor AA Allocation	31.82%	23.71%	0.00%	0.00%	0.00%	1.00%	0.00%	43.47%	100.00%

Allocation Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smittifield Surcharge	Wholesale	Total
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C	100% to Meters & Services								
Factor C Allocation	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%

Y Based on Labor Related O&M Expenses.

Total Labor Related Expenses \$									
Base	\$ 2,380,441	23.94%							
Max Day	1,298,895	13.01%							
Max Hour	662,414	6.63%							
Meters	2,360,934	23.66%							
Billing	1,017,764	10.19%							
Fire	552,963	5.54%							
Wholesale	1,701,409	17.04%							
Total	\$ 9,984,820	100.00%							

Factor Y Allocation	23.94%	13.01%	6.63%	23.66%	10.19%	5.54%	0.00%	17.04%	100.00%
YY	Reallocation of Factor Y from Billing and Collections and Meters and Services to Base								

Factor Y Allocation									
Base	23.94%								
Max Day	13.01%								
Max Hour	6.63%								
Meters	23.66%								
Billing	10.19%								
Fire	5.54%								
Wholesale	17.04%								
Total	100.00%								

Factor YY Allocation	57.78%	13.01%	6.63%	0.00%	0.00%	5.54%	0.00%	17.04%	100.00%
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Allocation	Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
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Com Y Reallocation of Billing and Collections and Meters and Services from Factor Y

Factor Y Allocation:

Base	23.94%
Max Day	13.01%
Max Hour	6.63%
Meters	23.65%
Billing	10.19%
Fire	5.54%
Wholesale	17.04%
Total	100.00%

Factor Com Y Allocation	42.53%	23.11%	11.79%	0.00%	0.00%	0.00%	5.54%	0.00%	17.04%	100.00%
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Z Based on Total O&M expenses, excluding Administrative & General

Total Labor Related Expenses \$

Base	\$ 9,892,513	36.58%
Max Day	3,643,904	13.48%
Max Hour	1,661,581	6.14%
Meters	4,336,608	16.04%
Billing	1,239,347	4.58%
Fire	1,274,215	4.71%
Wholesale	4,992,451	18.46%
Total	\$ 27,040,620	100.00%

Factor Z Allocation	36.58%	13.48%	6.14%	16.04%	4.58%	4.71%	0.00%	0.00%	18.46%	100.00%
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Com Z Allocated Based on Methodology in Docket # 2048, Z - O&M Reallocated from Meters and Billing

Factor Z Allocation:

Base	36.58%
Max Day	13.48%
Max Hour	6.14%
Meters	16.04%
Billing	4.58%
Fire	4.71%
Wholesale	18.46%
Total	100.00%

Factor Com Z Allocation	50.01%	18.42%	8.40%	0.00%	0.00%	4.71%	0.00%	0.00%	18.46%	100.00%
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Allocation Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
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F 2% to Fire, Allocated to Retail & Wholesale by Proportion of T&D Pipe in Miles

2% to Fire Protection	2.00%								
Allocation to Fire Protection	98.00%								
Remaining % to be Allocated to Base and Wholesale									
Proportion of T&D Pipe in Miles									
Local Distribution (Miles)	1,102								
Transmission Mains (Miles)	132								
Distribution %	88.31%								
Transmission %	10.69%								
Proportion of Wholesale and Retail Consumption									
Retail (HCF)	13,080,745								
Wholesale (HCF)	12,635,911								
Retail %	50.88%								
Wholesale %	49.12%								
Unaccounted for Water Responsibility									
Retail	94.75%								
Wholesale	5.25%								
Allocation to Retail and Wholesale									
Retail Allocation (98% x Retail Unaccounted for Water %)	92.86%								
Wholesale Allocation (98% x Wholesale Unaccounted for Water %)	5.14%								
Allocation of Retail to Base, Max Day, Max Hour									
Base Units (HCF/Day)	35,865								
Max Hour Units (HCF/Day)	26,728								
Max Day Units (HCF/Day)	25,435								
Base %	40.74%								
Max Day %	30.36%								
Max Hour %	28.89%								
Base Allocation (Retail Allocation x Base %)	37.83%								
Max Day Allocation (Retail Allocation x Max Day %)	28.19%								
Max Hour Allocation (Retail Allocation x Max Hour %)	26.83%								
Factor F Allocation	37.83%	28.19%	26.83%	0.00%	0.00%	2.00%	0.00%	5.14%	100.00%

Allocation Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
Cran Cranston Taxes, 16% Allocator F, 84% Allocator A									
16% Allocator F									
Base	37.83%	6.05%	4.51%	0.00%	0.00%	0.00%	0.00%	0.00%	16.00%
Max Day	28.19%	4.51%	4.29%	0.00%	0.00%	0.00%	0.00%	0.00%	6.05%
Max Hour	26.83%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.51%
Meters	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.29%
Billing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire	2.00%	0.32%	0.84%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Wholesale	5.14%	0.82%	36.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.82%
84% Allocator A									
Base	55.53%	46.65%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	84.00%
Max Day	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.65%
Max Hour	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Meters	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Billing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fire	1.00%	0.84%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.84%
Wholesale	43.47%	36.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36.51%
Factor Cran Allocation									
	52.70%	4.51%	4.29%	0.00%	0.00%	1.16%	0.00%	37.33%	100.00%
D 50% to Billing and Collections, 50% to Meters and Services									
Factor D Allocation									
	0%	0%	0%	50%	50%	0%	0.00%	0%	100%
DY Allocation Factor D with Meters and Services, Billing and Collection Reallocated to Base									
Factor DY Allocation									
	100%	0%	0%	0%	0%	0%	0.00%	0%	100%
FP 100% Fire Protection									
Factor FP Allocation									
	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%

Allocation Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
HM T&D Maintenance Based on 6 Yr. Average of Activities									
T&D Maintenance Allocation to Cost Components									
FY 2010	24.36%	18.16%	17.28%	29.80%	0.00%	8.62%		1.78%	100.00%
FY 2011	24.88%	18.54%	17.65%	24.40%	0.00%	12.37%		2.16%	100.00%
FY 2012	24.05%	17.92%	17.05%	26.01%	0.00%	12.68%		2.29%	100.00%
FY 2013	21.07%	15.70%	14.94%	32.74%	0.01%	13.36%		2.17%	100.00%
FY 2014	17.55%	13.08%	12.45%	44.38%	0.00%	10.64%		1.90%	100.00%
FY 2015	20.22%	15.07%	14.34%	32.69%	0.00%	15.31%		2.39%	100.00%
6 Year Average	22.02%	16.41%	15.62%	31.67%	0.00%	12.16%		2.12%	100.00%
Factor HM Allocation	22.02%	16.41%	15.62%	31.67%	0.00%	12.16%	0.00%	2.12%	100.00%
X1 T&D Salaries and Wages (Other Miscellaneous T&D)									
T&D Maintenance Allocation to Cost Components (Excluding Miscellaneous T&D)									
FY 2010	24.42%	18.20%	17.32%	29.76%	0.00%	8.53%		1.77%	100.00%
FY 2011	24.97%	18.61%	17.71%	24.18%	0.00%	12.37%		2.16%	100.00%
FY 2012	24.09%	17.95%	17.08%	25.89%	0.00%	12.69%		2.30%	100.00%
FY 2013	21.07%	15.70%	14.94%	32.74%	0.01%	13.37%		2.17%	100.00%
FY 2014	17.52%	13.05%	12.42%	44.47%	0.00%	10.63%		1.90%	100.00%
FY 2015	20.20%	15.06%	14.33%	32.70%	0.00%	15.33%		2.39%	100.00%
6 Year Average	22.04%	16.43%	15.63%	31.62%	0.00%	12.16%		2.12%	100.00%
Factor X1 Allocation	22.04%	16.43%	15.63%	31.62%	0.00%	12.16%	0.00%	2.12%	100.00%
HMV Reallocation from Billing and Collections and Meters and Services to Base of HM									
Factor HM									
Base	22.02%								
Max Day	16.41%								
Max Hour	15.62%								
Meters	31.67%								
Billing	0.00%								
Fire	12.16%								
Wholesale	2.12%								
	100.00%								
Factor HMV Allocation	53.69%	16.41%	15.62%	0.00%	0.00%	12.16%	0.00%	2.12%	100.00%

Allocation Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
HOC T&D Contract Operations based on 6 Yr. Average of activities									
T&D Contract Operations Allocation to Cost Components									
FY 2010	37.95%	28.28%	26.91%	0.01%	0.00%	1.92%		4.93%	100.00%
FY 2011	38.04%	28.35%	26.97%	0.03%	0.00%	1.85%		4.76%	100.00%
FY 2012	37.83%	28.19%	26.83%	0.02%	0.00%	1.99%		5.13%	100.00%
FY 2013	37.48%	27.93%	26.58%	0.95%	0.00%	1.98%		5.09%	100.00%
FY 2014	37.83%	28.19%	26.83%	0.01%	0.00%	2.00%		5.14%	100.00%
FY 2015	37.83%	28.19%	26.83%	0.01%	0.00%	2.00%		5.14%	100.00%
6 Year Average	37.83%	28.19%	26.83%	0.17%	0.00%	1.96%		5.03%	100.00%
Factor HOC Allocation	37.83%	28.19%	26.83%	0.17%	0.00%	1.96%	0.00%	5.03%	100.00%
X2 T&D Salaries and Wages (Other Miscellaneous T&D)									
T&D Contract Operations Allocation to Cost Components (Excluding Miscellaneous T&D)									
FY 2010	37.96%	28.29%	26.92%	0.00%	0.00%	1.91%		4.92%	100.00%
FY 2011	38.08%	28.38%	27.01%	0.00%	0.00%	1.83%		4.71%	100.00%
FY 2012	37.83%	28.19%	26.83%	0.00%	0.00%	2.00%		5.14%	100.00%
FY 2013	37.44%	27.90%	26.55%	1.03%	0.00%	1.98%		5.09%	100.00%
FY 2014	37.83%	28.19%	26.83%	0.00%	0.00%	2.00%		5.14%	100.00%
FY 2015	37.83%	28.19%	26.83%	0.00%	0.00%	2.00%		5.14%	100.00%
6 Year Average	37.83%	28.19%	26.83%	0.17%	0.00%	1.95%		5.03%	100.00%
Factor X2 Allocation	37.83%	28.19%	26.83%	0.17%	0.00%	1.95%	0.00%	5.03%	100.00%

Allocation	Description	Base	Max. Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
HMC	T&D Contract Maintenance Based on 6 Yr. Average of Activities									
	T&D Contract Maintenance Allocation to Cost Components									
	FY 2010	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	FY 2011	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	FY 2012	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	FY 2013	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	FY 2014	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	FY 2015	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	6 Year Average	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	Factor HMC Allocation	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
X3	T&D Salaries and Wages (Other Miscellaneous T&D)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	T&D Contract Maintenance Allocation to Cost Components (Excluding Miscellaneous T&D)									
	FY 2010	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	FY 2011	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	FY 2012	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	FY 2013	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	FY 2014	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	FY 2015	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	6 Year Average	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%
	Factor X3 Allocation	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%

Allocation	Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield SurchARGE	Wholesale	Total
K2 Allocated Based on Net Plant Investment, Excluding Land Investment										
	Source of Supply & Pumping									
	Land and Land Rights	\$ 20,242,864	\$ -	\$ -	\$ -	\$ -	364,508	\$ -	\$ 15,843,378	
	Structures and Improvements	12,456,619	-	-	-	-	224,303	-	9,749,356	
	Collecting & Impounding Reservoirs	7,027,211	-	-	-	-	126,537	-	5,496,951	
	Land & Impounding Reservoirs	2,319,373	-	-	-	-	41,764	-	1,815,292	
	Lakes Rivers and Other Intakes	-	-	-	-	-	-	-	-	
	Supply Mains	12,396,040	-	-	-	-	223,212	-	9,701,945	
	Other Water Source Plant	-	-	-	-	-	-	-	-	
	Other Power Production Equipment	255,081	-	-	-	-	4,593	-	199,643	
	Electric Pumping Equipment	826,895	152,674	56,144	-	-	15,151	-	658,536	
	Hydraulic Pumping Equipment	52,108	9,621	3,538	-	-	955	-	41,489	
	Other Plant & Miscellaneous Equipment	556,651	102,778	37,795	-	-	10,199	-	443,315	
	Total Source of Supply & Pumping Plant	\$ 56,132,844	\$ 285,073	\$ 97,478	\$ -	\$ -	\$ 1,011,222	\$ -	\$ 43,952,917	
	Water Treatment Plant									
	Land and Land Rights	\$ 9,544	\$ 7,113	\$ -	\$ -	\$ -	300	\$ -	\$ 13,037	
	Structures and Improvements	17,193,408	12,813,063	-	-	-	540,318	-	23,485,010	
	Water Treatment Equipment	4,325,696	3,223,643	-	-	-	135,939	-	5,908,602	
	Other Plant & Miscellaneous Equipment	8,488,064	6,325,569	-	-	-	266,745	-	11,584,110	
	Total Water Treatment Plant	\$ 30,016,712	\$ 22,369,387	\$ -	\$ -	\$ -	\$ 943,302	\$ -	\$ 41,060,758	
	Transmission & Distribution Plant									
	Land and Land Rights	\$ 214,782	\$ 160,062	\$ 103,028	\$ -	\$ -	42,092	\$ -	\$ 94,938	
	Structures and Improvements	76,193	56,782	36,549	-	-	14,932	-	33,679	
	Distribution Reservoirs & Standpipes	7,628,277	6,684,830	5,409,805	-	-	-	-	-	
	Transmission Mains (1) (2)	14,640,321	10,910,423	-	-	-	460,085	-	19,997,669	
	Distribution Mains (1) (2)	28,183,750	21,003,407	19,987,291	-	-	-	-	-	
	T&D Services	28,912,482	21,546,481	20,504,081	-	-	-	-	-	
	Meters & Meter Installation	-	-	-	27,240,361	-	-	-	-	
	Hydrants	-	-	-	-	-	-	-	-	
	Other Plant & Miscellaneous Equipment	2,493,059	1,857,905	-	-	-	9,837,595	-	3,405,347	
	Total Transmission & Distribution Plant	\$ 82,148,865	\$ 67,219,889	\$ 46,040,764	\$ 27,240,361	\$ -	\$ 10,433,051	\$ -	\$ 23,531,633	

Allocation Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
General Plant									
Land and Land Rights	\$ 8,814	\$ 4,392	\$ 2,416	\$ 1,427	\$ -	\$ 649	\$ -	\$ 5,682	
Structures and Improvements	2,483,664	1,238,477	681,433	402,323	-	182,957	-	1,602,261	
Office Furniture & Equipment	208,979	104,123	57,291	33,825	-	15,382	-	134,708	
Transportation Equipment	2,978,751	1,484,655	816,885	482,295	-	219,324	-	1,920,750	
Stores Equipment	-	-	-	-	-	-	-	-	-
Computer Equipment	1,612,429	803,390	442,040	260,984	-	118,683	-	1,039,373	
Tools, Shop & Garage Equipment	201,800	100,546	55,322	32,663	-	14,853	-	130,080	
Laboratory Equipment	110,035	-	-	-	-	1,981	-	86,121	
Power Operated Equipment	155,671	77,563	42,677	25,197	-	11,458	-	100,346	
Communication Equipment	428,891	213,694	117,579	69,419	-	31,568	-	276,464	
Miscellaneous Equipment	262,854	130,987	72,060	42,545	-	19,347	-	169,436	
Other Tangible Plant	96,342	48,002	26,412	15,594	-	7,091	-	62,102	
Total General Plant	\$ 8,551,232	\$ 4,205,809	\$ 2,314,115	\$ 1,366,271	\$ -	\$ 623,294	\$ -	\$ 5,527,323	
Total Plant	\$176,849,652	\$88,060,159	\$48,452,357	\$28,606,632	\$0	\$13,010,868	\$ -	\$114,012,632	
Construction Work in Progress	\$ 17,600,536	\$ 8,769,432	\$ 4,825,106	\$ 2,848,779	\$ -	\$ 1,295,484	\$ -	\$ 11,346,321	
Assets under Capital Lease	-	-	-	-	-	-	-	-	
Total Plant Investment	\$ 194,450,188	\$ 96,829,591	\$ 53,277,464	\$ 31,455,410	\$ -	\$ 14,306,352	\$ -	\$ 125,357,953	
Land Investment	\$ 20,476,005	\$ 171,567	\$ 105,444	\$ 1,427	\$ -	\$ 407,548	\$ -	\$ 15,957,035	
Net Plant Investment Excluding Land	\$ 173,974,183	\$ 96,658,024	\$ 53,172,020	\$ 31,453,984	\$ -	\$ 13,898,804	\$ -	\$ 109,400,917	
Factor K2 Allocation	36.35%	20.20%	11.11%	6.57%	0.00%	2.90%	0.00%	22.86%	100.00%

K1 Allocated Based on Net Plant Investment, Meters and Fire Reallocated to Retail

Net Plant Investment, Meters and Fire Reallocated to Retail									
Net Plant Investment Allocation	36.35%	20.20%	11.11%	6.57%	0.00%	2.90%	0.00%	22.86%	
Meters and Fire Reallocated to Retail	41.45%	23.03%	12.67%	0.00%	0.00%	0.00%	0.00%	22.86%	
Factor K1 Allocation	41.45%	23.03%	12.67%	0.00%	0.00%	0.00%	0.00%	22.86%	100.00%

Allocation	Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
Based on Allocation of other Transmission & Distribution Plant except Services & Meters										
Source of Supply & Pumping										
	Land and Land Rights	\$ 20,242,864	\$ -	\$ -	-	-	364,508	\$ -	15,843,378	
	Structures and Improvements	12,456,619	-	-	-	-	224,303	-	9,749,358	
	Collecting & Impounding Reservoirs	7,027,211	-	-	-	-	126,537	-	5,499,951	
	Land & Impounding Reservoirs	2,319,373	-	-	-	-	41,764	-	1,815,292	
	Lakes Rivers and Other Intakes	-	-	-	-	-	-	-	-	
	Supply Mains	12,396,040	-	-	-	-	223,212	-	9,701,945	
	Other Water Source Plant	-	-	-	-	-	-	-	-	
	Other Power Production Equipment	255,081	-	-	-	-	-	-	-	
	Electric Pumping Equipment	826,895	152,674	56,144	-	-	4,593	-	199,643	
	Hydraulic Pumping Equipment	52,108	9,621	3,538	-	-	15,151	-	658,536	
	Other Plant & Miscellaneous Equipment	559,651	102,778	37,795	-	-	955	-	41,499	
	Total Source of Supply & Pumping Plant	\$ 56,132,844	\$ 265,073	\$ 97,478	\$ -	\$ -	1,011,222	\$ -	\$ 43,952,917	
Water Treatment Plant										
	Land and Land Rights	\$ 9,544	\$ 7,113	\$ -	-	-	300	\$ -	13,037	
	Structures and Improvements	17,193,408	12,813,063	-	-	-	540,318	-	23,485,010	
	Water Treatment Equipment	4,325,696	3,223,643	-	-	-	135,939	-	5,908,602	
	Other Plant & Miscellaneous Equipment	8,488,064	6,325,569	-	-	-	266,745	-	11,594,110	
	Total Water Treatment Plant	\$ 30,016,712	\$ 22,369,387	\$ -	\$ -	\$ -	943,302	\$ -	\$ 41,000,758	

Allocation	Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
	Transmission & Distribution Plant									
	Land and Land Rights	\$ 214,782	\$ 160,062	\$ 103,028	\$ -	\$ -	42,092	\$ -	\$ 94,938	
	Structures and Improvements	76,193	56,782	36,549	-	-	14,932	-	33,679	
	Distribution Reservoirs & Standpipes	7,628,277	5,684,830	5,409,805	-	-	-	-	-	
	Transmission Mains (1) (2)	14,640,321	10,910,423	-	-	-	460,085	-	19,997,669	
	Distribution Mains (1) (2)	28,183,750	21,003,407	19,987,291	-	-	-	-	-	
	T&D Services	28,912,482	21,546,481	20,504,091	-	-	-	-	-	
	Meters & Meter Installation	-	-	-	27,240,361	-	-	-	-	
	Hydrants	-	-	-	-	-	9,837,595	-	-	
	Other Plant & Miscellaneous Equipment	2,493,059	1,857,905	-	-	-	78,347	-	3,405,347	
	Total Transmission & Distribution Plant	\$ 82,148,865	\$ 61,219,869	\$ 46,040,764	\$ 27,240,361	\$ -	\$ 10,433,051	\$ -	\$ 23,531,633	
	General Plant									
	Land and Land Rights	\$ 8,814	\$ 4,392	\$ 2,416	\$ 1,427	\$ -	649	\$ -	\$ 5,682	
	Structures and Improvements	2,485,664	1,236,477	681,433	402,323	-	182,957	-	1,602,261	
	Office Furniture & Equipment	208,979	104,123	57,291	33,825	-	15,382	-	134,708	
	Transportation Equipment	2,979,751	1,484,655	816,885	482,295	-	219,324	-	1,920,750	
	Stores Equipment	-	-	-	-	-	-	-	-	
	Computer Equipment	1,612,429	803,390	442,040	260,984	-	118,683	-	1,039,373	
	Tools, Shop & Garage Equipment	201,800	100,546	55,322	32,863	-	14,853	-	130,080	
	Laboratory Equipment	110,035	-	-	-	-	1,981	-	86,121	
	Power Operated Equipment	155,671	77,563	42,677	25,197	-	11,458	-	100,346	
	Communication Equipment	428,891	213,684	117,579	69,419	-	31,568	-	276,464	
	Miscellaneous Equipment	262,854	130,967	72,060	42,545	-	19,347	-	169,436	
	Other Tangible Plant	96,342	48,002	26,412	15,594	-	7,091	-	62,102	
	Total General Plant	\$ 8,551,232	\$ 4,205,809	\$ 2,314,115	\$ 1,366,271	\$ -	\$ 623,294	\$ -	\$ 5,527,323	
	Total Plant									
	Construction Work in Progress	\$ 17,600,536	\$ 8,769,432	\$ 4,825,106	\$ 2,848,779	\$ -	\$ 1,295,484	\$ -	\$ 11,345,321	
	Assets under Capital Lease	-	-	-	-	-	-	-	-	
	Total Plant Investment	\$ 194,450,188	\$ 96,829,591	\$ 53,277,464	\$ 31,455,410	\$ -	\$ 14,306,352	\$ -	\$ 125,357,953	
	Total T&D Excluding Meters and Services	52,945,408	39,456,585	25,397,096	-	-	10,376,027	-	23,403,016	
	Factor L	34.93%	26.03%	16.76%	0.00%	0.00%	6.85%	0.00%	15.44%	100.00%

Allocation Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surchage	Wholesale	Total
Allocation of all Non-General Plant									
Source of Supply & Pumping									
Land and Land Rights	\$ 20,242,864	\$ -	\$ -	-	-	364,508		\$ 15,843,378	
Structures and Improvements	12,458,619	-	-	-	-	224,303		9,749,358	
Collecting & Impounding Reservoirs	7,027,211	-	-	-	-	126,537		5,499,951	
Land & Impounding Reservoirs	2,319,373	-	-	-	-	41,764		1,815,292	
Lakes Rivers and Other Intakes	-	-	-	-	-	-		-	
Supply Mains	12,398,040	-	-	-	-	223,212		9,701,945	
Other Water Source Plant	-	-	-	-	-	-		-	
Other Power Production Equipment	255,081	-	-	-	-	4,593		199,643	
Electric Pumping Equipment	826,895	152,674	56,144	-	-	15,151		658,536	
Hydraulic Pumping Equipment	52,108	9,621	3,538	-	-	955		41,499	
Other Plant & Miscellaneous Equipment	556,951	102,778	37,795	-	-	10,199		443,315	
Total Source of Supply & Pumping Plant	\$ 56,132,844	\$ 285,073	\$ 97,478	\$ -	\$ -	\$ 1,011,222		\$ 43,952,917	
Water Treatment Plant									
Land and Land Rights	\$ 9,544	\$ 7,113	\$ -	\$ -	\$ -	300		\$ 13,037	
Structures and Improvements	17,193,408	12,813,063	-	-	-	540,318		23,485,010	
Water Treatment Equipment	4,325,696	3,223,643	-	-	-	135,939		5,908,602	
Other Plant & Miscellaneous Equipment	8,488,064	6,325,569	-	-	-	266,745		11,594,110	
Total Water Treatment Plant	\$ 30,016,712	\$ 22,368,387	\$ -	\$ -	\$ -	\$ 943,302		\$ 41,000,758	

Allocation	Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
	Transmission & Distribution Plant									
	Land and Land Rights	\$ 214,782	\$ 160,062	\$ 103,028	\$ -	\$ -	\$ 42,092	\$ -	\$ 94,938	
	Structures and Improvements	76,193	56,782	36,549	-	-	14,932	-	33,679	
	Distribution Reservoirs & Standpipes	7,628,277	5,684,830	5,409,805	-	-	-	-	-	
	Transmission Mains (1)(2)	14,640,321	10,910,423	-	-	-	460,085	-	19,997,669	
	Distribution Mains (1)(2)	28,183,750	21,003,407	19,987,291	-	-	-	-	-	
	T&D Services	28,912,462	21,546,481	20,504,091	-	-	-	-	-	
	Meters & Meter Installation	-	-	-	27,240,361	-	-	-	-	
	Hydrants	-	-	-	-	-	9,837,695	-	-	
	Other Plant & Miscellaneous Equipment	2,493,059	1,857,905	-	-	-	78,347	-	3,405,347	
	Total Transmission & Distribution Plant	\$ 82,148,865	\$ 61,219,888	\$ 46,040,764	\$ 27,240,361	\$ -	\$ 10,433,051	\$ -	\$ 23,531,633	
	General Plant									
	Land and Land Rights	\$ 8,814	\$ 4,392	\$ 2,416	\$ 1,427	\$ -	\$ 649	\$ -	\$ 5,682	
	Structures and Improvements	2,485,664	1,236,477	681,433	402,323	-	182,857	-	1,602,261	
	Office Furniture & Equipment	208,979	104,123	57,291	33,825	-	15,382	-	134,708	
	Transportation Equipment	2,979,751	1,484,655	816,885	482,295	-	219,324	-	1,920,750	
	Stores Equipment	-	-	-	-	-	-	-	-	
	Computer Equipment	1,612,429	803,390	442,040	280,984	-	118,683	-	1,039,373	
	Tools, Shop & Garage Equipment	201,800	100,546	55,322	32,663	-	14,853	-	130,080	
	Laboratory Equipment	110,035	-	-	-	-	1,981	-	86,121	
	Power Operated Equipment	158,671	77,563	42,677	25,197	-	11,458	-	100,346	
	Communication Equipment	428,891	213,694	117,579	69,419	-	31,568	-	276,464	
	Miscellaneous Equipment	262,854	130,967	72,060	42,545	-	19,347	-	169,436	
	Other Tangible Plant	96,342	48,002	26,412	15,594	-	7,091	-	62,102	
	Total General Plant	\$ 8,551,232	\$ 4,205,809	\$ 2,314,115	\$ 1,366,271	\$ -	\$ 623,294	\$ -	\$ 5,527,323	
	Total Plant									
	Construction Work in Progress	\$ 17,600,536	\$ 8,769,432	\$ 4,825,106	\$ 2,848,779	\$ -	\$ 1,295,484	\$ -	\$ 11,345,321	
	Assets under Capital Lease	-	-	-	-	-	-	-	-	
	Total Plant Investment	\$ 194,450,188	\$ 96,829,591	\$ 53,277,464	\$ 31,455,410	\$ -	\$ 14,306,352	\$ -	\$ 125,357,953	
	Total Plant, Excluding General Plant	168,298,420	83,854,350	46,138,242	27,240,361	-	12,387,574	-	108,485,308	
	Factor T	37.70%	18.78%	10.34%	6.10%	0.00%	2.77%	0.00%	24.30%	100.00%

Allocation Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surchage	Wholesale	Total
N Allocation of Pumping Investment and Expenses Based on Capacity									
Pumping Station									
Raw Water	36.39%	0.00%	0.00%	0.00%	0.00%	0.66%		28.48%	% Capacity 65.52%
Neutaconkanut	3.74%	2.79%	0.00%	0.00%	0.00%	0.12%		5.11%	11.76%
Bath Street	2.49%	1.86%	0.00%	0.00%	0.00%	0.08%		3.41%	7.84%
Aqueduct	1.12%	0.83%	0.00%	0.00%	0.00%	0.04%		1.53%	3.51%
Fruit Hill	0.72%	0.53%	0.51%	0.00%	0.00%	0.00%		0.00%	1.76%
Alpine Estates	0.26%	0.20%	0.19%	0.00%	0.00%	0.00%		0.00%	0.64%
Cranston	0.38%	0.28%	0.27%	0.00%	0.00%	0.00%		0.00%	0.94%
Dean Estates	0.51%	0.38%	0.36%	0.00%	0.00%	0.00%		0.00%	1.26%
Greenville	0.33%	0.25%	0.23%	0.00%	0.00%	0.00%		0.00%	0.81%
Ashby Street	0.23%	0.17%	0.16%	0.00%	0.00%	0.00%		0.00%	0.56%
Atwood Avenue	0.26%	0.19%	0.18%	0.00%	0.00%	0.00%		0.00%	0.64%
Structure "D" PS	1.33%	0.99%	0.95%	0.00%	0.00%	0.00%		0.00%	3.28%
North Elmore	0.17%	0.12%	0.12%	0.00%	0.00%	0.00%		0.00%	0.41%
Waltham	0.44%	0.33%	0.31%	0.00%	0.00%	0.00%		0.00%	1.08%
Pumping Capacity	46.37%	8.93%	3.28%	0.00%	0.00%	0.89%	0.00%	38.52%	100.00%
Factor N	48.37%	8.93%	3.28%	0.00%	0.00%	0.89%	0.00%	38.52%	100.00%

NO Allocation of Pumping Investment and Expenses Based on Capacity (Excluding Raw Water)									
Pumping Station									
Raw Water	36.39%	0.00%	0.00%	0.00%	0.00%	0.66%		28.48%	% Capacity 65.52%
Neutaconkanut	3.74%	2.79%	0.00%	0.00%	0.00%	0.12%		5.11%	11.76%
Bath Street	2.49%	1.86%	0.00%	0.00%	0.00%	0.08%		3.41%	7.84%
Aqueduct	1.12%	0.83%	0.00%	0.00%	0.00%	0.04%		1.53%	3.51%
Fruit Hill	0.72%	0.53%	0.51%	0.00%	0.00%	0.00%		0.00%	1.76%
Alpine Estates	0.26%	0.20%	0.19%	0.00%	0.00%	0.00%		0.00%	0.64%
Cranston	0.38%	0.28%	0.27%	0.00%	0.00%	0.00%		0.00%	0.94%
Dean Estates	0.51%	0.38%	0.36%	0.00%	0.00%	0.00%		0.00%	1.26%
Greenville	0.33%	0.25%	0.23%	0.00%	0.00%	0.00%		0.00%	0.81%
Ashby Street	0.23%	0.17%	0.16%	0.00%	0.00%	0.00%		0.00%	0.56%
Atwood Avenue	0.26%	0.19%	0.18%	0.00%	0.00%	0.00%		0.00%	0.64%
Structure "D" PS	1.33%	0.99%	0.95%	0.00%	0.00%	0.00%		0.00%	3.28%
North Elmore	0.17%	0.12%	0.12%	0.00%	0.00%	0.00%		0.00%	0.41%
Waltham	0.44%	0.33%	0.31%	0.00%	0.00%	0.00%		0.00%	1.08%
Pumping Capacity Excluding Raw Water	11.98%	8.93%	3.28%	0.00%	0.00%	0.23%		10.04%	100.00%
Factor NO	34.76%	25.91%	9.53%	0.00%	0.00%	0.67%	0.00%	29.13%	100.00%

Allocation	Description	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge	Wholesale	Total
RR	Retail Revenue Requirements									
	<u>Allocated Retail Revenue Requirements</u>									
	Net Operations and Maintenance Expense	\$ 11,809,266	\$ 4,421,487	\$ 1,951,853	\$ 6,856,024	\$ 2,627,417	\$ 1,813,663			
	Capital Expense	12,432,883	6,912,360	3,810,088	651,773	-	79,201			
	City Services Expense	350,254	129,016	58,830	153,542	43,880	45,115			
	Property Taxes Expense	3,808,061	88,550	84,266	-	-	72,713			
	Total	\$ 28,400,463	\$ 11,551,413	\$ 5,905,037	\$ 7,661,339	\$ 2,671,298	\$ 2,010,891			
	% Allocation	48.80%	19.85%	10.15%	13.16%	4.59%	3.45%			
	Factor RR	48.80%	19.85%	10.15%	13.16%	4.59%	3.45%	0.00%		100.00%
X4	Total Capital Fund Allocation									
	<u>Capital Funds</u>									
	Capital Fund	\$ 773,246	\$ 429,607	\$ 236,329	\$ 139,800	\$ -	\$ 61,775	\$ -	\$ 486,244	
	Western Cranston Fund (WCWDS Fund)	25,289	18,846	17,934	-	-	-	-	-	
	Infrastructure Replacement Fund	11,416,225	6,342,721	3,489,160	-	-	-	-	6,296,947	
	AMR/Meter Replacement Fund	-	-	-	472,537	-	-	-	-	
	Equipment Replacement	218,123	121,187	66,665	39,436	-	17,426	-	-	
	Total	\$ 12,432,883	\$ 6,912,360	\$ 3,810,088	\$ 651,773	\$ -	\$ 79,201	\$ -	\$ 6,920,354	
	% Allocation	40.36%	22.44%	12.37%	2.12%	0.00%	0.26%		22.46%	
	Factor X4	40.36%	22.44%	12.37%	2.12%	0.00%	0.26%	0.00%	22.46%	100.00%
ES	East Smithfield Debt Service									
	Factor ES Allocation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%

Schedule HJS-7 Rebuttal
Cost Allocation Summary

Summary of Costs to be Recovered Through Rates
Rate Year Ending December 31, 2017

	Total	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield	Wholesale
Net Operations and Maintenance Expense	\$ 36,551,299	\$ 11,809,266	\$ 4,421,487	\$ 1,951,853	\$ 6,856,024	\$ 2,627,417	\$ 1,813,663	\$ -	\$ 7,071,589
Restricted Funds (Excluding Revenue Reserve)	\$ 30,889,069	\$ 12,432,883	\$ 6,912,360	\$ 3,810,088	\$ 651,773	\$ 0	\$ 79,201	\$ 82,411	\$ 6,920,354
City Services Expense	957,400	350,254	129,016	58,830	153,542	43,880	45,115	0	176,763
Payment in Lieu of Taxes (PILOT)	326,000	118,514	65,845	36,221	21,427	0	9,468	0	74,525
Property Taxes Expense	6,957,183	3,809,061	88,550	84,266	0	0	72,713	0	2,903,593
Total Expenses Allocated	75,680,951	28,518,977	11,617,258	5,941,258	7,682,766	2,671,298	2,020,159	82,411	17,146,824
Less: Miscellaneous Revenues	\$ (1,141,911)	\$ (372,457)	\$ (144,171)	\$ (78,356)	\$ (357,196)	\$ (135,673)	\$ (24,527)	\$ -	\$ (29,530)
Plus: Net Operating Revenue Allowance	\$ 1,490,781	\$ 562,930	\$ 229,462	\$ 117,258	\$ 146,511	\$ 50,712	\$ 39,913	\$ 1,648	\$ 342,346
Net Revenue Requirement	76,029,821	28,709,450	11,702,549	5,980,160	7,472,082	2,586,337	2,035,544	84,059	17,459,640
Retail Revenue Requirement	\$58,486,122	28,709,450	\$11,702,549	\$5,980,160	\$7,472,082	\$2,586,337	\$2,035,544		
Factor RR		49.09%	20.01%	10.22%	12.78%	4.42%	3.48%		

Schedule HJS-8 Rebuttal
Units of Service

Units of Service
Rate Year Ending December 31, 2017

	Base		Maximum Day			Maximum Hour			Equivalent		
	Annual Use (HCF)	Average Rate (HCF/Day)	Demand Factor	Total Capacity (HCF/Day)	Extra Capacity (HCF/Day)	Demand Factor	Total Capacity (HCF/Day)	Extra Capacity (HCF/Day)	Meters & Services (Equivalent Meters)	East Smithfield Bills	Bills
Retail											
Residential	8,662,545	23,733	1.7	40,346	16,613	2.2	52,213	11,866.50			
Commercial	4,237,383	11,609	1.6	18,575	6,966	2	23,219	4,643.71			
Industrial	190,818	523	1.5	784	261	2	1,046	261.39			
Fire Protection				2888	2888		11551	8663			
Total Retail	13,090,745	35,865		62,593	26,728		88,028	25,435	124,404	29,388	919,584
Wholesale											
Wholesale	12,635,911	34,619	1.7	58,852	24,233	2.15	74,430.71	15,579			
Total	25,726,656	70,483.99		121,445.00	50,961.01		162,458.22	41,013.22	124,403.60	29,388.00	919,584.00

Schedule HJS-9 Rebuttal
 Unit Cost of Service
 Rate Year Ending December 31, 2017

	Total	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	East Smithfield Surcharge
Retail Units of Service								
Number		13,090,745	26,728	25,435	124,404	919,584	6,216	236,715
Units		Ccf	Ccf/Day	Ccf/Day	Equiv. Meters	Bills	Hydrants	Ccf
O&M Expense								
Retail	28,934,675	11,665,545	4,362,862	1,910,966	6,628,805	2,541,579	1,824,918	-
Retail Unit Cost (\$/Unit)		\$0.89	\$163.23	\$75.13	\$53.28	\$2.76	\$293.58	\$0.00
Wholesale O&M Expense	7,182,901	7,182,901						
Capital Expense								
Retail Capital Expense	\$ 24,448,089	\$ 12,681,540	\$ 7,050,607	\$ 3,886,290	\$ 664,809	\$ -	\$ 80,785	\$ 84,059
Retail Cost (\$/Unit)		\$0.97	\$263.79	\$152.79	\$5.34	\$0.00	\$13.00	\$0.36
Wholesale Capital Expense	\$ 7,058,761	\$ 7,058,761						
City Services Expense								
Retail City Services Expense	\$ 796,250	\$ 357,259	\$ 131,596	\$ 60,007	\$ 156,613	\$ 44,758	\$ 46,017	\$ -
Retail Cost (\$/Unit)		\$0.03	\$4.92	\$2.36	\$1.26	\$0.05	\$7.40	\$ -
Wholesale City Services Expense	\$ 180,298	\$ 180,298						
Payment in Lieu of Taxes								
Retail PILOT Expense	\$256,504	\$120,884	\$67,162	\$36,946	\$21,855	\$0	\$9,657	\$0
Retail Cost (\$/Unit)		\$0.01	\$2.51	\$1.45	\$0.18	\$0.00	\$1.55	\$ -
Wholesale PILOT Expense	\$76,016	\$76,016						
Property Tax Expense								
Retail Property Tax Expense	\$ 4,134,662	\$ 3,884,222	\$ 90,321	\$ 85,952	\$ -	\$ -	\$ 74,167	\$ -
Retail Cost (\$/Unit)		\$0.30	\$3.38	\$3.38	\$0.00	\$0.00	\$11.93	\$ -
Wholesale Property Tax Expense	\$ 2,961,665	\$ 2,961,665						
Total Unit Cost of Service	\$ 58,570,180.39	\$ 28,709,449.71	\$ 11,702,548.70	\$ 5,980,160.11	\$ 7,472,081.59	\$ 2,586,337.39	\$ 2,035,544.05	\$ 84,058.84
Retail Cost of Service		\$2.19	\$437.84	\$235.12	\$60.06	\$2.81	\$327.47	\$0.36
Retail Total Unit Cost (\$/Unit)								
Wholesale Cost of Service	\$ 17,459,640.35	\$ 17,459,640.35	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Cost of Service	\$ 76,029,820.75							

Schedule HJS-11 Rebuttal
Proposed Rates and Impacts

Proposed Rates and Impacts
Rate Year Ending December 31, 2017

Billing Unit	Pro-Forma Units of Service	Proposed Consumption Charge	Consumption Charge Revenues	Current Rates	% Change
Retail Consumption Charges					
Residential (HCF)	8,662,545	\$ 3.513	\$ 30,433,814	\$ 3.044	15.42%
Commercial (HCF)	4,237,383	\$ 3.329	\$ 14,107,369	\$ 2.901	14.76%
Industrial (HCF)	190,818	\$ 3.273	\$ 624,597	\$ 2.848	14.93%
Total	13,090,745		\$ 45,165,779	\$ 39,204,882	15.20%

Wholesale Charges					
Consumption (HCF)	12,635,911	\$ 1.381748	\$ 17,459,645	\$ 1.294904	6.71%
	12,635,911		\$ 17,459,645	\$ 16,362,292	6.71%

Total Consumption Charge Revenue **62,625,424** **55,567,174** **12.70%**

Billing Unit	Pro-Forma Units of Service	Proposed Retail Service Charge	Retail Service Charge Revenues	Current Rates	% Change
Service Charges					
5/8"	55,532	\$ 7.81	\$ 5,204,459	\$ 7.89	-1.01%
3/4"	10,843	\$ 8.31	\$ 1,081,264	\$ 8.32	-0.12%
1"	5,167	\$ 9.81	\$ 608,259	\$ 9.58	2.40%
1.5"	1,511	\$ 11.82	\$ 214,320	\$ 11.27	4.88%
2"	1,428	\$ 17.32	\$ 296,796	\$ 15.91	8.86%
3"	88	\$ 57.87	\$ 61,111	\$ 50.10	15.51%
4"	28	\$ 72.88	\$ 24,488	\$ 62.77	16.11%
6"	89	\$ 107.92	\$ 115,259	\$ 92.31	16.91%
8"	8	\$ 147.96	\$ 14,204	\$ 126.08	17.35%
10"	4	\$ 184.25	\$ 8,844	\$ 156.68	17.60%
12"	-	\$ 220.54	\$ -	\$ 187.28	17.76%
Total Service Charge	74,698		\$ 7,629,003	\$ 7,603,522	0.34%

Schedule HJS-11 Rebuttal
Proposed Rates and Impacts

Proposed Rates and Impacts
Rate Year Ending December 31, 2017

Billing Unit	Pro-Forma Units of Service	Proposed Fire Service Charge	Fire Service Charge Revenues	Current Rates	% Change
Retail Fire Protection Service Charges (Providence Only)					
5/8"	25,513	\$ 1.38	\$ 422,495	1.20	15.00%
3/4"	4,353	\$ 2.07	\$ 108,129	1.80	15.00%
1"	2,008	\$ 5.15	\$ 124,143	4.48	15.00%
1.5"	893	\$ 13.74	\$ 147,265	11.95	15.00%
2"	851	\$ 32.96	\$ 336,577	28.66	15.00%
3"	62	\$ 89.26	\$ 66,412	77.62	15.00%
4"	19	\$ 151.05	\$ 34,440	131.35	15.00%
6"	45	\$ 308.97	\$ 166,844	268.67	15.00%
8"	3	\$ 466.89	\$ 16,808	405.99	15.00%
10"	2	\$ 714.07	\$ 17,138	620.93	15.00%
12"	-	\$ 1,180.95	\$ -	1,026.91	15.00%
Total Retail FPSC	33,749		\$ 1,440,250	\$1,252,391	15.00%
Total Service Charge Revenue			\$ 9,069,253	\$ 8,855,913	2.41%

Billing Unit	Pro-Forma Units of Service	Proposed Debt Surcharge	Debt Surcharge Revenues	Current Rates	% Change
East Smithfield Debt Surcharge					
All E. Smithfield Customers (HCF)	236,715	\$0.36	\$ 85,217	N/A	N/A
Total East Smithfield Debt Surcharge	236,715		\$ 85,217	\$0	N/A

Schedule HJS-11 Rebuttal
Proposed Rates and Impacts

Proposed Rates and Impacts
Rate Year Ending December 31, 2017

Billing Unit	Pro-Forma Units of Service	Proposed Monthly Pvt. Fire Charge	Private Fire Charge Revenues	Current Pvt. Fire Charge	% Change
Private Fire Service Charges					
3/4"	3	\$ 8.64	\$ 311	\$ 7.51	15.00%
1"	9	\$ 10.21	\$ 1,103	\$ 8.88	15.00%
1-1/2"	3	\$ 12.57	\$ 453	\$ 10.93	15.00%
2"	58	\$ 18.64	\$ 12,974	\$ 16.21	15.00%
4"	361	\$ 79.67	\$ 345,139	\$ 69.28	15.00%
6"	1,231	\$ 129.89	\$ 1,918,772	\$ 112.95	15.00%
8"	244	\$ 196.73	\$ 576,027	\$ 171.07	15.00%
10"	4	\$ 274.06	\$ 13,155	\$ 238.31	15.00%
12"	20	\$ 367.64	\$ 88,234	\$ 319.69	15.00%
16"	1	\$ 611.43	\$ 7,337	\$ 531.68	15.00%
Total			\$ 2,963,505	\$ 2,576,961	15.00%

Billing Unit	Pro-Forma Units of Service	Proposed Annual Hydrant Charge	Hydrant Charge Revenues	Current Pvt. Fire Charge	% Change
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Public Fire Service Charges

Hydrants	2,848	\$ 454.00	\$ 1,292,992	\$ 394.80	14.99%
			\$ 1,292,992	\$ 1,124,390	14.99%
Total Fire Protection Charge Revenue			\$4,256,497.15	\$3,701,351.40	15.00%
Total Rate Revenues			76,036,391	68,124,439	11.61%
Miscellaneous Revenues			\$ (1,141,911)	\$ (1,141,911)	
Total Revenues			77,178,302	69,266,350	11.42%

Schedule HJS-11A Rebuttal
 Summary of Rates
 Rate Year Ending December 31, 2017

Consumption Charges

	Current Consumption Charge	Revised Consumption Charge (1)	\$ Increase	Originally Filed Consumption Charge	Delta
Monthly					
Retail Charges					
Residential (HCF)	\$ 3.044	\$ 3.513	\$ 0.47	\$ 3.531	\$ (0.018)
Commercial (HCF)	\$ 2.901	\$ 3.329	\$ 0.43	\$ 3.349	\$ (0.020)
Industrial (HCF)	\$ 2.848	\$ 3.273	\$ 0.43	\$ 3.299	\$ (0.026)
Wholesale Charges					
Consumption (HCF)	\$ 1,294.90	\$ 1,381,748	\$ 0.09	\$ 1,392,244	\$ (0.010)
Consumption (MG)	\$ 1,731.16	\$ 1,847.26	\$ 116.10	\$ 1,861.29	\$ (14.032)

Service Charges

Monthly	Current Retail Service Charge	Revised Retail Service Charge (1)	\$ Increase	Originally Filed Retail Service Charge	
5/8"	\$ 7.89	\$ 7.81	\$ (0.08)	\$ 7.83	\$ (0.020)
3/4"	\$ 8.32	\$ 8.31	\$ (0.01)	\$ 8.33	\$ (0.020)
1"	\$ 9.58	\$ 9.81	\$ 0.23	\$ 9.83	\$ (0.020)
1.5"	\$ 11.27	\$ 11.82	\$ 0.55	\$ 11.83	\$ (0.010)
2"	\$ 15.91	\$ 17.32	\$ 1.41	\$ 17.33	\$ (0.010)
3"	\$ 50.10	\$ 57.87	\$ 7.77	\$ 57.83	\$ 0.040
4"	\$ 62.77	\$ 72.88	\$ 10.11	\$ 72.82	\$ 0.060
6"	\$ 92.31	\$ 107.92	\$ 15.61	\$ 107.82	\$ 0.100
8"	\$ 126.08	\$ 147.96	\$ 21.88	\$ 147.81	\$ 0.150
10"	\$ 156.68	\$ 184.25	\$ 27.57	\$ 184.06	\$ 0.190
12"	\$ 187.28	\$ 220.54	\$ 33.26	\$ 220.31	\$ 0.230

Retail Fire Protection Service Charges (Providence Only)

Monthly	Current Providence Only Fire Protection Charge	Revised Providence Only Fire Protection Charge (1)	\$ Increase	Originally Filed Providence Only Fire Protection Charge	
5/8"	\$ 1.20	\$ 1.38	\$ 0.18	\$ 1.38	\$ -
3/4"	\$ 1.80	\$ 2.07	\$ 0.27	\$ 2.07	\$ -
1"	\$ 4.48	\$ 5.15	\$ 0.67	\$ 5.15	\$ -
1.5"	\$ 11.95	\$ 13.74	\$ 1.79	\$ 13.74	\$ -
2"	\$ 28.66	\$ 32.96	\$ 4.30	\$ 32.96	\$ -
3"	\$ 77.62	\$ 89.26	\$ 11.64	\$ 89.26	\$ -
4"	\$ 131.35	\$ 151.05	\$ 19.70	\$ 151.05	\$ -
6"	\$ 268.67	\$ 308.97	\$ 40.30	\$ 308.97	\$ -
8"	\$ 405.99	\$ 466.89	\$ 60.90	\$ 466.89	\$ -
10"	\$ 620.93	\$ 714.07	\$ 93.14	\$ 714.07	\$ -
12"	\$ 1,026.91	\$ 1,180.95	\$ 154.04	\$ 1,180.95	\$ -

Private Fire Service Charges

Monthly	Current Private Fire Service Charge	Revised Fire Service Charge (1)	\$ Increase	Originally Filed Fire Service Charge	
3/4"	\$ 7.51	\$ 8.64	\$ 1.13	\$ 8.64	\$ -
1"	\$ 8.88	\$ 10.21	\$ 1.33	\$ 10.21	\$ -
1-1/2"	\$ 10.93	\$ 12.57	\$ 1.64	\$ 12.57	\$ -
2"	\$ 16.21	\$ 18.64	\$ 2.43	\$ 18.64	\$ -
4"	\$ 69.28	\$ 79.67	\$ 10.39	\$ 79.67	\$ -
6"	\$ 112.95	\$ 129.89	\$ 16.94	\$ 129.89	\$ -
8"	\$ 171.07	\$ 196.73	\$ 25.66	\$ 196.73	\$ -
10"	\$ 238.31	\$ 274.06	\$ 35.75	\$ 274.06	\$ -
12"	\$ 319.69	\$ 367.64	\$ 47.95	\$ 367.64	\$ -
16"	\$ 531.68	\$ 611.43	\$ 79.75	\$ 611.43	\$ -

Public Fire Service Charges

Annual Hydrant	Current Public Fire Service Charge	Revised Public Fire Service Charge (1)	\$ Increase	Originally Filed Fire Service Charge	
	\$ 394.80	\$ 454.00	\$ 59.20	\$ 454.00	\$ -

East Smithfield Debt Surcharge

Monthly	Current Surcharge	Proposed Surcharge (1)	\$ Increase	Originally Filed Surcharge	
All E. Smithfield Customers (HC)	\$ -	\$ 0.36	\$ 0.36	\$ 0.36	\$ -

1) Includes:

- Updated revenue requirements per rebuttal testimony of Nancy Parillo
- Corrected ES Units
- Corrected T&D Plant Split Per KCWA 1
- Gross plant values used to allocate capital costs
- Used Allocator TD to allocate gross plant investment in Distribution Reservoirs & Standpipes
- Corrected KCWA water sales projection

Schedule HJS-12 Rebuttal
Comparison of Revenues by Customer Class

Comparison of Revenues by Customer Class
Rate Year Ending December 31, 2017

	Existing Rates	Revised Rates	% Change	Originally Filed Rates	Delta
Retail					
Monthly Service Charge	\$ 7,603,522	\$ 7,629,003	0.3%	\$ 7,646,333	\$ (17,330)
East Smithfield Debt Surcharge	\$ -	\$ 85,217		\$ 85,217	\$ -
Periodic FPSC Volume Charge	\$ 1,252,391	\$ 1,440,250	15.0%	\$ 1,493,976	\$ (53,726)
Residential	\$ 26,368,787	\$ 30,433,814	15.4%	\$ 30,591,714	\$ (157,899)
Commercial	\$ 12,292,647	\$ 14,107,369	14.8%	\$ 14,193,082	\$ (85,713)
Industrial	\$ 543,449	\$ 624,597	14.9%	\$ 629,601	\$ (5,005)
Total Retail	\$ 48,060,796	\$ 54,320,250	13.0%	\$ 54,639,923	\$ (319,673)
Wholesale					
East Providence	\$ 2,659,088	\$ 2,837,423	6.7%	\$ 2,858,976	\$ (21,554)
East Smithfield	\$ -	\$ -	N/A	\$ -	\$ -
Greenville	\$ 557,724	\$ 595,128	6.7%	\$ 599,649	\$ (4,521)
Kent County	\$ 3,083,655	\$ 3,290,463	6.7%	\$ 3,465,756	\$ (175,293)
Smithfield	\$ 609,008	\$ 649,852	6.7%	\$ 654,788	\$ (4,936)
Warwick	\$ 5,576,271	\$ 5,950,249	6.7%	\$ 5,995,449	\$ (45,199)
Lincoln	\$ 1,360,721	\$ 1,451,979	6.7%	\$ 1,463,009	\$ (11,029)
Johnston	\$ 421,183	\$ 449,430	6.7%	\$ 452,844	\$ (3,414)
Bristol County	\$ 2,094,641	\$ 2,235,120	6.7%	\$ 2,252,098	\$ (16,978)
Total Wholesale	\$ 16,362,292	\$ 17,459,645	6.7%	\$ 17,742,569	\$ (282,925)
Fire Protection					
Private Fire Protection	\$ 2,576,961	\$ 2,963,505	15.0%	\$ 2,963,505	\$ -
Public Fire Protection	\$ 1,124,390	\$ 1,292,992	15.0%	\$ 1,292,992	\$ -
Total Fire Protection	\$ 3,701,351	\$ 4,256,497	15.0%	\$ 4,256,497	\$ -
Total Rate Revenues	\$ 68,124,439	\$ 76,036,391	11.6%	\$ 76,638,990	\$ (602,598)
Miscellaneous Revenues	\$ (1,141,911)	\$ (1,141,911)		\$ (1,089,482)	\$ (52,429)
Total Revenues	\$ 69,266,350	\$ 77,178,302	11.4%	\$ 77,728,472	\$ (550,169)

**Schedule HJS-13 Rebuttal
Typical Bill Comparison**

**Comparison of Typical Annual Charges
Rate Year Ending December 31, 2017**

	Proposed Rates	Existing Rates	% Change
Residential - (5/8" Meter, 100 HCF)			
Service Charge	\$ 93.72	\$ 94.68	-1.0%
Volume Charge	\$ 351.33	\$ 304.40	15.4%
Total	\$ 445.05	\$ 399.08	11.5%
Commercial - (2" Meter, 2,000 HCF)			
Service Charge*	\$ 207.84	\$ 190.92	8.9%
Volume Charge	6,658.53	5,802.00	14.8%
Total	\$ 6,866.37	\$ 5,992.92	14.6%
Industrial - (6" Meter, 10,000 HCF)			
Service Charge *	\$ 1,295.04	\$ 1,107.72	16.9%
Volume Charge	\$ 32,732.65	\$ 28,480.00	14.9%
Total	\$ 34,027.69	\$ 29,587.72	15.0%

**Schedule HJS-14 Rebuttal
Revenue Proof**

**Revenue Proof
Rate Year Ending December 31, 2017**

Net Operations & Maintenance Expense	\$ 36,551,299
Capital Expense	\$ 30,889,069
City Services Expense	\$ 957,400
Property Taxes Expense	\$ 6,957,183
Payment in Lieu of Taxes (PILOT)	\$ 326,000
	<hr/>
Total Expenses Allocated	\$ 75,680,951
plus: Net Operating Revenue	\$1,490,780.80
	<hr/>
Net Revenue Requirement	\$ 77,171,732
Retail	
Monthly Service Charge	\$ 7,629,003
East Smithfield Debt Surcharge	\$ 85,217
Retail FPSC	\$ 1,440,250
Volume Charge	
Residential	\$ 30,433,814
Commercial	\$ 14,107,369
Industrial	\$ 624,597
	<hr/>
Total Retail	\$ 54,320,250
Wholesale	
East Providence	\$ 2,837,423
East Smithfield	\$ -
Greenville	\$ 595,128
Kent County	\$ 3,290,463
Smithfield	\$ 649,852
Warwick	\$ 5,950,249
Lincoln	\$ 1,451,979
Johnston	\$ 449,430
Bristol County	\$ 2,235,120
	<hr/>
Total Wholesale	\$ 17,459,645
Fire Protection	
Private Fire Protection	\$ 2,963,505
Public Fire Protection	\$ 1,292,992
	<hr/>
Total Fire Protection	\$ 4,256,497
	<hr/>
Total Rate Revenues	\$ 76,036,391
	<hr/>
Miscellaneous Revenues	\$ 1,141,911
	<hr/>
Total Revenues	\$ 77,178,302
	<hr/>
Total Surplus / (Deficit)	\$ 6,571

Note: Surplus due to rounding

Schedule HJS-15 Rebuttal
Projected Volumes

Calculation of Rate Year Sales Volumes
Rate Year Ending December 31, 2017
(Volumes in HCF)

Customer Class	FY 2012	FY 2013	FY 2014	FY 2015	Three Year Average	Adjustments (1)	Pro Forma Rate Year
Retail							
Residential	8,487,320	8,345,520	8,627,628	8,347,957	8,440,369	222,176	8,662,545
Commercial	4,392,712	4,565,034	3,903,139	4,230,647	4,232,940	4,443	4,237,383
Industrial	201,227	184,632	185,888	171,644	180,721	10,096	190,818
Sub-total Retail	13,081,259 49.75%	13,095,186 51.48%	12,716,655 49.17%	12,750,248 48.22%	12,854,030	236,715	13,090,745
Wholesale							
East Providence	2,015,566	1,947,969	2,201,598	2,010,940	2,053,502		2,053,502
East Smithfield	279,817	272,257	278,534	318,959	289,917	(289,917)	-
Greenville	442,414	416,633	431,647	443,841	430,707		430,707
Kent County	2,800,752	2,424,743	2,561,361	2,561,821	2,515,975	(134,598)	2,381,377
Smithfield	438,706	436,247	497,433	477,254	470,311		470,311
Warwick	4,272,694	4,050,757	4,202,875	4,665,329	4,306,320		4,306,320
Lincoln	1,017,940	1,007,955	1,025,337	1,119,193	1,050,828		1,050,828
Johnston	262,814	204,366	337,577	433,844	325,262		325,262
Bristol County	1,682,988	1,580,779	1,608,984	1,663,045	1,617,603		1,617,603
Sub-total Wholesale	13,213,689 50.25%	12,341,706 48.52%	13,145,345 50.83%	13,694,224 51.78%	13,060,425	(424,514)	12,635,911
Grand Total	26,294,948	25,436,892	25,862,000	26,444,473	25,914,455	(187,799)	25,726,656
Unaccounted for Water	3,691,429	4,017,104	3,046,994	3,119,179	3,468,677	-	3,468,677
(1) East Smithfield Retail							
Residential		218,471	228,489	219,570	222,176		
Commercial		4,155	3,409	5,763	4,443		
Industrial		9,770	8,049	12,469	10,096		
Total East Smithfield Retail		232,396	239,948	237,802	236,715		

1 Adjustments relate to the pending acquisition of the East Smithfield water utility and known decreases in projected demand by Kent County as discussed in the testimony of Harold Smith

Schedule H, S-16 Rebuttal
Allocation of Plant Investment

Plant Investment
Test Year Ended June 30, 2015

Source of Supply & Pumping	Allocation Factor	Plant in Service	Accumulated Depreciation	Net Book Value	CIAC	Adj. Net Book Value	Base	Max Day	Max Hour	Meters & Services & Collection	Public Fire	Wholesale
4-30271-30280-17900 Land and Land Rights	A	\$ 36,450,750	\$ -	\$ 36,450,750	\$ -	\$ 36,450,750	\$ 20,242,864	-	-	-	\$ 364,508	\$ 15,843,378
30271-30420 Structures and Improvements	A	\$ 22,430,279	\$ -	\$ 22,430,279	\$ -	\$ 22,430,279	\$ 12,456,619	-	-	-	\$ -	\$ 9,745,358
30820 Collecting & Impounding Reservoirs	A	\$ 12,653,700	\$ -	\$ 12,653,700	\$ -	\$ 12,653,700	\$ 7,027,211	-	-	-	\$ 126,537	\$ 5,469,951
30820 Land & Impounding Reservoirs	A	\$ 4,176,429	\$ -	\$ 4,176,429	\$ -	\$ 4,176,429	\$ 2,319,373	-	-	-	\$ 41,764	\$ 1,815,292
Lakes Rivers and Other Intakes	A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	\$ -	\$ -
30920 Supply Mains	A	\$ 22,321,197	\$ -	\$ 22,321,197	\$ -	\$ 22,321,197	\$ 12,366,040	-	-	-	\$ 223,212	\$ 9,701,845
33920 Other Water Source Plant	A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	\$ -	\$ -
31021 Other Power Production Equipment	A	\$ 459,318	\$ -	\$ 459,318	\$ -	\$ 459,318	\$ 255,081	-	-	-	\$ 4,593	\$ 189,643
31121 Electric Pumping Equipment	N	\$ 1,709,401	\$ -	\$ 1,709,401	\$ -	\$ 1,709,401	\$ 808,895	152,674	56,144	-	\$ 15,161	\$ 668,536
31122 Hydraulic Pumping Equipment	N	\$ 107,721	\$ -	\$ 107,721	\$ -	\$ 107,721	\$ 52,106	9,621	3,538	-	\$ 955	\$ 41,489
Other Plant & Miscellaneous Equipment	N	\$ 1,150,739	\$ -	\$ 1,150,739	\$ -	\$ 1,150,739	\$ 559,651	102,778	37,795	-	\$ 10,189	\$ 443,315
Total Source of Supply & Pumping Plant		\$ 101,459,534	\$ -	\$ 101,459,534	\$ -	\$ 101,459,534	\$ 55,132,844	285,073	97,478	-	\$ 1,011,222	\$ 43,852,917
Water Treatment Plant												
30330 Land and Land Rights	AA	\$ 29,994	\$ -	\$ 29,994	\$ -	\$ 29,994	\$ 9,544	7,113	-	-	\$ 300	\$ 13,037
30430 Structures and Improvements	AA	\$ 54,031,798	\$ -	\$ 54,031,798	\$ -	\$ 54,031,798	\$ 17,193,408	12,813,063	-	-	\$ 540,318	\$ 23,465,010
32030 Water Treatment Equipment	AA	\$ 13,599,879	\$ -	\$ 13,599,879	\$ -	\$ 13,599,879	\$ 4,325,696	3,223,643	-	-	\$ 135,939	\$ 5,936,802
33930 Other Plant & Miscellaneous Equipment	AA	\$ 26,674,487	\$ -	\$ 26,674,487	\$ -	\$ 26,674,487	\$ 8,498,054	6,325,569	-	-	\$ 288,745	\$ 11,594,110
Total Water Treatment Plant		\$ 94,330,159	\$ -	\$ 94,330,159	\$ -	\$ 94,330,159	\$ 30,016,712	22,369,387	-	-	\$ 943,302	\$ 41,000,768
Transmission & Distribution Plant												
30340 Land and Land Rights	L	\$ 614,902	\$ -	\$ 614,902	\$ -	\$ 614,902	\$ 214,782	160,062	103,028	-	\$ -	\$ 94,938
30440 Structures and Improvements	L	\$ 216,135	\$ -	\$ 216,135	\$ -	\$ 216,135	\$ 76,183	56,782	36,549	-	\$ -	\$ 33,679
33040 Distribution Reservoirs and Standpipes	TD	\$ 18,722,912	\$ -	\$ 18,722,912	\$ -	\$ 18,722,912	\$ 7,628,277	5,894,830	5,409,805	-	\$ -	\$ -
33140 Transmission Mains (1) (2)	AA	\$ 46,008,498	\$ -	\$ 46,008,498	\$ -	\$ 46,008,498	\$ 14,640,321	10,910,423	-	-	\$ -	\$ -
33140 Distribution Mains (1) (2)	TD	\$ 69,174,449	\$ -	\$ 69,174,449	\$ -	\$ 69,174,449	\$ 28,183,750	21,003,407	19,987,291	-	\$ 480,085	\$ 19,987,669
33340 T&D Services	TD	\$ 70,963,054	\$ -	\$ 70,963,054	\$ -	\$ 70,963,054	\$ 28,912,482	21,546,481	20,504,091	-	\$ -	\$ -
33440 Meters & Meter Installation	C	\$ 27,240,361	\$ -	\$ 27,240,361	\$ -	\$ 27,240,361	\$ -	-	27,240,361	-	\$ -	\$ -
33640 Hydrants	FP	\$ 9,837,595	\$ -	\$ 9,837,595	\$ -	\$ 9,837,595	\$ -	-	-	-	\$ -	\$ -
33940 Other Plant & Miscellaneous Equipment	AA	\$ 7,834,658	\$ -	\$ 7,834,658	\$ -	\$ 7,834,658	\$ 2,493,059	1,857,905	-	-	\$ 9,837,595	\$ -
Total Transmission & Distribution Plant		\$ 250,614,583	\$ -	\$ 250,614,583	\$ -	\$ 250,614,583	\$ 82,148,885	61,219,889	46,104,784	\$ 27,240,361	\$ 10,453,051	\$ 23,951,653

Schedule HJS-16 Rebuffal
Allocation of Plant Investment

General Plant	Plant Investment														
	Test Year Ended June 30, 2015														
30350 Land and Land Rights	T	\$	23,380	\$	8,814	\$	4,392	\$	2,416	\$	1,427	\$	649	\$	5,682
30450 Structures and Improvements	T	\$	6,593,116	\$	2,485,664	\$	1,238,477	\$	681,433	\$	402,323	\$	182,967	\$	1,602,281
34050 Office Furniture & Equipment	T	\$	554,308	\$	208,979	\$	104,123	\$	57,291	\$	33,825	\$	15,382	\$	134,708
34150 Transportation Equipment	T	\$	7,903,661	\$	2,979,751	\$	1,494,655	\$	816,885	\$	482,295	\$	219,324	\$	1,920,750
Stores Equipment	T	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
35050-34950 Computer Equipment	T	\$	4,276,888	\$	1,612,429	\$	803,390	\$	442,040	\$	260,984	\$	118,683	\$	1,030,373
34350 Tools, Shop & Garage Equipment	T	\$	535,265	\$	201,800	\$	100,546	\$	56,322	\$	32,663	\$	14,853	\$	130,080
34450 Laboratory Equipment	T	\$	198,137	\$	110,035	\$	-	\$	-	\$	-	\$	-	\$	86,121
34550 Power Operated Equipment	A	\$	412,911	\$	165,671	\$	77,563	\$	42,677	\$	25,197	\$	11,458	\$	100,348
34850 Communication Equipment	T	\$	1,137,616	\$	428,891	\$	213,694	\$	117,579	\$	69,419	\$	31,588	\$	276,484
34750 Miscellaneous Equipment	T	\$	897,209	\$	282,854	\$	130,867	\$	72,069	\$	42,545	\$	19,347	\$	169,436
10800+10610+10400 Other Tangible Plant	T	\$	255,544	\$	96,342	\$	48,002	\$	26,412	\$	15,594	\$	7,091	\$	62,102
Total General Plant		\$	22,568,045	\$	8,551,232	\$	4,205,808	\$	2,314,115	\$	1,366,271	\$	623,284	\$	5,527,323
Total Plant		\$	468,992,300	\$	176,849,652	\$	88,060,159	\$	48,452,357	\$	28,006,632	\$	13,010,968	\$	114,012,632
Construction Work in Progress	T	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Assets under Capital Lease	T	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Total Plant Investment		\$	468,992,300	\$	176,849,652	\$	88,060,159	\$	48,452,357	\$	28,006,632	\$	13,010,968	\$	114,012,632
Total Plant Excluding Land		\$	431,873,274	\$	168,034,838	\$	83,667,767	\$	46,038,242	\$	26,640,338	\$	12,397,877	\$	108,490,516
Factor K1															
Factor K2															
Total T&D Excluding Meters and Services		\$	151,578,112	\$	52,945,408	\$	26,477,916	\$	13,238,958	\$	6,619,479	\$	3,309,739	\$	1,654,869
Factor L															
Total Non-General Plant		\$	446,404,255	\$	165,289,420	\$	83,854,350	\$	46,138,242	\$	27,240,361	\$	12,387,574	\$	108,835,308
Factor T															
1) Split based on Inch-Miles															
Transmission															
Distribution															
2) T&D CIAC Based on Inch-Miles															
Transmission and Distribution															
Transmission Meters															
Distribution Meters															
*Based on Inch-Miles															

39.94%

CIAC Through 2015

CIAC Through 2015	\$	5,980,052
Transmission	\$	1,484,233
Distribution	\$	12,793,489
Distribution Meters	\$	20,257,774
Distribution Meters	\$	20,257,774

**Schedule HJS-17 Rebuttal
Inch-Mile and Lost and Unaccounted-For Water Calculations**

**Inch-Mile Calculations
Year Ending June 30, 2015**

Pipe Size (inches)	Length (miles)	Inch-Miles
Services	225	
6	446	2,673
8	335	2,680
10	1	13
12	95	1,136
16	44	701
20	8	156
24	27	653
30	19	555
36	2	72
42	9	386
48	3	154
60	4	264
66	2	106
78	4	343
90	5	405
102	5	530
Totals	1,233	10,827

Breakdown Before Allocation of 12" Mains

	Length	Inch-Miles	Length %	Inch-Miles %
Local Distribution (<12" + Services)	1,007	5,366	81.63%	49.56%
12" Mains	95	1,136	7.68%	10.50%
Transmission (>12")	132	4,325	10.69%	39.94%
Totals	1,233	10,827	100.00%	100.00%

Breakdown After Allocation of 12" Mains

	<u>12" Mains</u>	Length	Inch-Miles	Length %	Inch-Miles %
Local Distribution	100.00%	1,102	6,502	89.31%	60.06%
Transmission	0.00%	132	4,325	10.69%	39.94%
Totals	100.00%	1,233	10,827	100.00%	100.00%

Unaccounted for Water Responsibility

Retail Customers

Local Distribution	89.31%
Transmission	5.44%
Total Retail Share of Unaccounted for Water	94.75%

Wholesale Customers

Local Distribution	0.00%
Transmission	5.25%
Total Wholesale Share of Unaccounted for Water	5.25%

Schedule HJS-18 Rebuttal
Development of Factors N, NO and NP

Development of Allocation Factor N

Station	Capacity (MGD)	Percent of Capacity	Allocation	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	Wholesale
Raw Water	161.3	65.52%	A	36.39%	0.00%	0.00%	0.00%	0.00%	0.66%	28.48%
Neutaconkanut	28.9	11.76%	AA	3.74%	2.79%	0.00%	0.00%	0.00%	0.12%	5.11%
Bath Street	19.3	7.84%	AA	2.49%	1.86%	0.00%	0.00%	0.00%	0.08%	3.41%
Aqueduct	8.6	3.51%	AA	1.12%	0.83%	0.00%	0.00%	0.00%	0.04%	1.53%
Fruit Hill	4.3	1.76%	TD	0.72%	0.53%	0.51%	0.00%	0.00%	0.00%	0.00%
Alpine Estates	1.6	0.64%	TD	0.26%	0.20%	0.19%	0.00%	0.00%	0.00%	0.00%
Cranston	2.3	0.94%	TD	0.38%	0.28%	0.27%	0.00%	0.00%	0.00%	0.00%
Dean Estates	3.1	1.26%	TD	0.51%	0.38%	0.36%	0.00%	0.00%	0.00%	0.00%
Greenville	2.0	0.81%	TD	0.33%	0.25%	0.23%	0.00%	0.00%	0.00%	0.00%
Ashby Street	1.4	0.58%	TD	0.23%	0.17%	0.16%	0.00%	0.00%	0.00%	0.00%
Atwood Avenue	1.6	0.64%	TD	0.26%	0.19%	0.18%	0.00%	0.00%	0.00%	0.00%
Structure "D" PS	8.1	3.28%	TD	1.33%	0.99%	0.95%	0.00%	0.00%	0.00%	0.00%
North Elmore	1.0	0.41%	TD	0.17%	0.12%	0.12%	0.00%	0.00%	0.00%	0.00%
Waltham	2.7	1.08%	TD	0.44%	0.33%	0.31%	0.00%	0.00%	0.00%	0.00%
Totals	246.1	100.00%		48.37%	8.93%	3.28%	0.00%	0.00%	0.89%	38.52%
<i>Factor N</i>				48.37%	8.93%	3.28%	0.00%	0.00%	0.89%	38.52%
<i>Factor NO</i>				34.76%	25.91%	9.53%	0.00%	0.00%	0.67%	29.13%

Development of Allocation Factor NP

Station	Capacity (MGD)	Power Cost	Allocation	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	Wholesale
Neutaconkanut	28.9	\$ 245,927	AA	\$ 78,256	\$ 58,319	\$ -	\$ -	\$ -	\$ 2,459	\$ 106,892
Bath Street	19.3	\$ 220,892	AA	\$ 70,290	\$ 52,382	\$ -	\$ -	\$ -	\$ 2,209	\$ 96,011
Aqueduct	8.6	\$ 153,173	AA	\$ 48,741	\$ 36,323	\$ -	\$ -	\$ -	\$ 1,532	\$ 66,577
Fruit Hill	4.3	\$ 34,229	TD	\$ 13,946	\$ 10,393	\$ 9,890	\$ -	\$ -	\$ -	\$ -
Alpine Estates	1.6	\$ 2,178	TD	\$ 887	\$ 661	\$ 629	\$ -	\$ -	\$ -	\$ -
Cranston	2.3	\$ 11,962	TD	\$ 4,874	\$ 3,632	\$ 3,456	\$ -	\$ -	\$ -	\$ -
Dean Estates	3.1	\$ 27,353	TD	\$ 11,145	\$ 8,305	\$ 7,904	\$ -	\$ -	\$ -	\$ -
Greenville	2.0	\$ 14,443	TD	\$ 5,884	\$ 4,385	\$ 4,173	\$ -	\$ -	\$ -	\$ -
Ashby Street	1.4	\$ -	TD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Atwood Avenue	1.6	\$ 8,697	TD	\$ 3,544	\$ 2,641	\$ 2,513	\$ -	\$ -	\$ -	\$ -
Structure "D" PS	8.1	\$ -	TD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
North Elmore	1.0	\$ 11,861	TD	\$ 4,833	\$ 3,601	\$ 3,427	\$ -	\$ -	\$ -	\$ -
Waltham	2.7	\$ 7,973	TD	\$ 3,249	\$ 2,421	\$ 2,304	\$ -	\$ -	\$ -	\$ -
Totals	84.9	\$ 738,689		\$ 245,648	\$ 183,064	\$ 34,296	\$ -	\$ -	\$ 6,200	\$ 269,480
				33.25%	24.78%	4.84%	0.00%	0.00%	0.84%	36.48%
<i>Factor NP</i>				63.52%						36.48%

Schedule HJS-19 Rebuttal
T&D Labor Allocators

Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire	Wholesale	Check
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HM Cost Allocations

FY 2010	24.36%	18.16%	17.28%	29.80%	0.00%	8.62%	1.78%	100.00%
FY 2011	24.88%	18.54%	17.65%	24.40%	0.00%	12.37%	2.16%	100.00%
FY 2012	24.05%	17.92%	17.05%	26.01%	0.00%	12.68%	2.29%	100.00%
FY 2013	21.07%	15.70%	14.94%	32.74%	0.01%	13.36%	2.17%	100.00%
FY 2014	17.55%	13.08%	12.45%	44.38%	0.00%	10.64%	1.90%	100.00%
FY 2015	20.22%	15.07%	14.34%	32.69%	0.00%	15.31%	2.39%	100.00%

6 Yr. Average 22.02% 16.41% 15.62% 31.67% 0.00% 12.16% 2.12% 100.00%

HOC Cost Allocations

FY 2010	37.95%	28.28%	26.91%	0.01%	0.00%	1.92%	4.93%	100.00%
FY 2011	38.04%	28.35%	26.97%	0.03%	0.00%	1.85%	4.76%	100.00%
FY 2012	37.83%	28.19%	26.83%	0.02%	0.00%	1.99%	5.13%	100.00%
FY 2013	37.48%	27.93%	26.58%	0.95%	0.00%	1.98%	5.09%	100.00%
FY 2014	37.83%	28.19%	26.83%	0.01%	0.00%	2.00%	5.14%	100.00%
FY 2015	37.83%	28.19%	26.83%	0.01%	0.00%	2.00%	5.14%	100.00%

6 Yr. Average 37.83% 28.19% 26.83% 0.17% 0.00% 1.96% 5.03% 100.00%

HMC Cost Allocations

FY 2010	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
FY 2011	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
FY 2012	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
FY 2013	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
FY 2014	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
FY 2015	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%

6 Yr. Average 0.00% 0.00% 0.00% 100.00% 0.00% 0.00% 0.00% 100.00%

X1 Cost Allocations

FY 2010	24.42%	18.20%	17.32%	29.76%	0.00%	8.53%	1.77%	100.00%
FY 2011	24.97%	18.61%	17.71%	24.18%	0.00%	12.37%	2.16%	100.00%
FY 2012	24.09%	17.95%	17.08%	25.89%	0.00%	12.69%	2.30%	100.00%
FY 2013	21.07%	15.70%	14.94%	32.74%	0.01%	13.37%	2.17%	100.00%
FY 2014	17.52%	13.05%	12.42%	44.47%	0.00%	10.63%	1.90%	100.00%
FY 2015	20.20%	15.06%	14.33%	32.70%	0.00%	15.33%	2.39%	100.00%

3 Yr. Average 22.04% 16.43% 15.63% 31.62% 0.00% 12.16% 2.12% 100.00%

X2 Cost Allocations

FY 2010	37.96%	28.29%	26.92%	0.00%	0.00%	1.91%	4.92%	100.00%
FY 2011	38.08%	28.38%	27.01%	0.00%	0.00%	1.83%	4.71%	100.00%
FY 2012	37.83%	28.19%	26.83%	0.00%	0.00%	2.00%	5.14%	100.00%
FY 2013	37.44%	27.90%	26.55%	1.03%	0.00%	1.98%	5.09%	100.00%
FY 2014	37.83%	28.19%	26.83%	0.00%	0.00%	2.00%	5.14%	100.00%
FY 2015	37.83%	28.19%	26.83%	0.00%	0.00%	2.00%	5.14%	100.00%

3 Yr. Average 37.83% 28.19% 26.83% 0.17% 0.00% 1.95% 5.03% 100.00%

X3 Cost Allocations

FY 2010	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
FY 2011	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
FY 2012	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
FY 2013	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
FY 2014	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%
FY 2015	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%

3 Yr. Average 0.00% 0.00% 0.00% 100.00% 0.00% 0.00% 0.00% 100.00%

**Schedule HJS-20 Rebuttal
Retail Service Charge Calculation**

Meter Size	Meter Equivalency	M&S Cost Per Month	Billing Cost Per Bill	Total Cost Per Month	Existing Charge	Proposed Charge	Accounts	Revenues
5/8"	1	\$ 5.01	\$ 2.81	\$ 7.81	7.89	\$ 7.81	55,532	\$ 5,204,459
3/4"	1.1	\$ 5.51	\$ 2.81	\$ 8.31	8.32	\$ 8.31	10,843	\$ 1,081,264
1"	1.4	\$ 7.01	\$ 2.81	\$ 9.81	9.58	\$ 9.81	5,167	\$ 608,259
1.5"	1.8	\$ 9.01	\$ 2.81	\$ 11.82	11.27	\$ 11.82	1,511	\$ 214,320
2"	2.9	\$ 14.52	\$ 2.81	\$ 17.32	15.91	\$ 17.32	1,428	\$ 296,796
3"	11	\$ 55.06	\$ 2.81	\$ 57.87	50.10	\$ 57.87	88	\$ 61,111
4"	14	\$ 70.07	\$ 2.81	\$ 72.88	62.77	\$ 72.88	28	\$ 24,488
6"	21	\$ 105.11	\$ 2.81	\$ 107.92	92.31	\$ 107.92	89	\$ 115,259
8"	29	\$ 145.15	\$ 2.81	\$ 147.96	126.08	\$ 147.96	8	\$ 14,204
10"	36.25	\$ 181.44	\$ 2.81	\$ 184.25	156.68	\$ 184.25	4	\$ 8,844
12"	43.5	\$ 217.73	\$ 2.81	\$ 220.54	187.28	\$ 220.54	0	\$ -
Total Revenue Generated							\$	7,629,003
Costs Allocated to Customer Service								
Meters & Services							\$	5,114,990
Billing & Collection							\$	2,521,065
Total Customer Service Costs							\$	7,636,055

**Schedule HJS-21 Rebuttal
Providence Only Fire Protection Charge Calculation**

Meter Size	Meter Equivalency	Accounts	5/8" Equivalents	Fire Cost Per Month	Existing Charge	Proposed Charge	Revenues
5/8"	1	25,513	25,513	\$ 2.35 \$	1.20	\$ 1.38 \$	422,495
3/4"	1.5	4,353	6,530	\$ 3.53 \$	1.80	\$ 2.07 \$	108,129
1"	3.75	2,008	7,530	\$ 8.82 \$	4.48	\$ 5.15 \$	124,143
1.5"	10	893	8,930	\$ 23.50 \$	11.95	\$ 13.74 \$	147,265
2"	24	851	20,424	\$ 56.40 \$	28.66	\$ 32.96 \$	336,577
3"	65	62	4,030	\$ 152.75 \$	77.62	\$ 89.26 \$	66,412
4"	110	19	2,090	\$ 258.50 \$	131.35	\$ 151.05 \$	34,440
6"	225	45	10,125	\$ 528.75 \$	268.67	\$ 308.97 \$	166,844
8"	340	3	1,020	\$ 799.00 \$	405.99	\$ 466.89 \$	16,808
10"	520	2	1,040	\$ 1,222.00 \$	620.93	\$ 714.07 \$	17,138
12"	860	-	-	\$ 2,021.00 \$	1,026.91	\$ 1,180.95 \$	-
Total Revenue Generated							\$1,440,250
Total FPSC Costs							\$ 2,451,103
Less Costs Recovered from Retail Volume Charge							\$ 1,020,121
Adjusted FPSC Costs							\$ 1,430,983

Schedule HJS-22 Rebuttal
Private Fire Service Charge Calculation

Fire Connection Size	Accounts	Demand Factor	6" Equivalency Factor	6" Connections	5/8" Equivalency	M&S Cost Per Month	Billing Cost Per Bill	Demand Cost Per Month	Total Cost Per Month	Existing Charge	Proposed Charge	Revenues
3/4"	3	0.5	0.004	0.01	1.10	\$5.51	\$ 2.81	\$ 0.14	\$ 8.46	\$ 7.51	\$ 8.64	\$ 311
1"	9	1.0	0.009	0.08	1.40	\$7.01	\$ 2.81	\$ 0.30	\$ 10.12	\$ 8.88	\$ 10.21	\$ 1,103
1-1/2"	3	2.9	0.026	0.08	1.80	\$9.01	\$ 2.81	\$ 0.87	\$ 12.70	\$ 10.93	\$ 12.57	\$ 453
2"	58	6.2	0.056	3.23	2.90	\$14.52	\$ 2.81	\$ 1.86	\$ 19.19	\$ 16.21	\$ 18.64	\$ 12,974
4"	361	38.3	0.344	124.28	14.00	\$70.07	\$ 2.81	\$ 11.48	\$ 84.37	\$ 69.28	\$ 79.67	\$ 345,139
6"	1,231	111.3	1.000	1,231.00	21.00	\$105.11	\$ 2.81	\$ 33.36	\$ 141.29	\$ 112.95	\$ 129.89	\$ 1,918,772
8"	244	237.2	2.131	519.97	29.00	\$145.15	\$ 2.81	\$ 71.09	\$ 219.06	\$ 171.07	\$ 196.73	\$ 576,027
10"	4	426.6	3.832	15.33	36.25	\$181.44	\$ 2.81	\$ 127.84	\$ 312.10	\$ 238.31	\$ 274.06	\$ 13,155
12"	20	689.0	6.190	123.81	43.50	\$217.73	\$ 2.81	\$ 206.49	\$ 427.04	\$ 319.69	\$ 367.64	\$ 88,234
16"	1	1,468.4	13.192	13.19	58.00	\$290.31	\$ 2.81	\$ 440.04	\$ 733.17	\$ 531.68	\$ 611.43	\$ 7,337
Public Fire Hydrants	1,934			6,216.00								\$ 2,963,505
				8,246.97								

Costs Allocated to Private Fire Service

Meters & Services	\$2,357,091
Billing & Collection	\$ 65,273
Demand Costs	\$ 812,985
Less Costs Recovered from Retail Volume Charge	\$ 272,009
Total Private Fire Protection Costs	\$ 2,963,340

Schedule HJS-23 Rebuttal
Public Fire Protection Charge Calculation

Direct Fire Costs (Per Hydrant)	\$	2,035,544
Direct Fire Protection Costs Hydrants	\$	6,216
Cost Per Hydrant	\$	327.47
Demand Costs		
Max Day	\$	1,264,358
Max Hour	\$	2,036,852
Total Demand Costs	\$	3,301,211
Total 6" Equivalents		8,247
Cost Per 6" Equivalent	\$	400.29
Calculated Annual Hydrant Charge (Before Adjustment)	\$	727.76
Less Adjustment (per 6" Eq.)	\$	(273.76)
Proposed Annual Hydrant Charge (Adjusted)	\$	454.00
Non-Providence Hydrants		2,848.00
Full Hydrant Charge COS	\$	4,523,770
Hydrant Charge Revenues	\$	1,292,982
Remaining to be Recovered	\$	3,230,778
Providence Retail FPSC	\$	2,451,103
FP Costs Recovered on Retail Volume Charge	\$	779,673