

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Docket No. R-2015-2518438

UGI Utilities, Inc. – Gas Division

Statement No. 4-R

**Rebuttal Testimony of
Paul R. Herbert**

Topics Addressed: Cost of Service Allocation

Date: May 10, 2016

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION
DOCKET NO. R-2015-2518438

RE: UGI UTILITIES, INC. - GAS DIVISION

REBUTTAL TESTIMONY OF PAUL R. HERBERT

Line
No.

1 I. **INTRODUCTION**

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

3 A. My name is Paul R. Herbert. My business address is 207 Senate Avenue, Camp
4 Hill, Pennsylvania.

5

6 Q. **By whom are you employed?**

7 A. I am employed by Gannett Fleming Valuation and Rate Consultants, LLC.

8

9 Q. **Did you previously submit direct testimony in this proceeding on behalf of
10 UGI Utilities, Inc. – Gas Division (“UGI Gas” or the “Company”)?**

11 A. Yes. I submitted my direct testimony, UGI Gas Statement No. 4, on January 19,
12 2016.

13

14 Q. **What is the purpose of your rebuttal testimony?**

15 A. My testimony responds to certain portions of the direct testimony submitted by
16 I&E witness Ethan Cline, OCA witness Glenn Watkins, and OSBA witness Robert
17 Knecht.

1

2 **Q. Please summarize your rebuttal testimony.**

3 A. I recognize that the revenues used for cost of service calculations should tie to
4 the revenues used in the Company's proof of revenue. Attached as UGI Gas
5 Exhibit PRH-1 to my rebuttal testimony are revised cost of service studies
6 ("COSS") reflecting these adjustments. I reject, however, the proposals to
7 allocate increased costs to interruptible service customers because these
8 proposals do not reflect appropriate cost causation principles and make mistaken
9 assumptions concerning the nature of this service. I also reject Witness Knecht's
10 recommended approach to the allocation of small mains. I also respond to a
11 number of what I believe are results-oriented alternative cost-of-service study
12 recommendations which produce what I believe to be unfair results and are not
13 reflective of the operational realities of UGI Gas's system. Finally, I address
14 concerns raised by Mr. Knecht concerning the allocation of meter expenses.

15

16

Interruptible Service Revenues

17 **Q. How have the public parties responded to your proposal to set the cost of**
18 **service for the interruptible service class at \$4.9 million?**

19 A. My \$4.9 million cost of service determination as shown in UGI Gas Exhibit D-2 to
20 my direct testimony was the result of averaging the results of my cost of service
21 study set forth in UGI Gas Exhibit D-1 of my direct testimony, which allocated no
22 main costs to interruptible service customers, with the results of the average and

1 excess cost of service study attached as UGI Gas Exhibit D to my direct
2 testimony. On page 17 of his direct testimony, Mr. Knecht rejects my UGI Gas
3 Exhibit D-1 cost of service study since it allocates no main costs to interruptible
4 service customers, and concludes that "in the absence of a perfect answer" UGI
5 Gas Exhibit D study approach was "directionally reasonable." On pages 16-19 of
6 his direct testimony Mr. Cline recommends the inclusion of \$20,379,000 of
7 interruptible revenue, but also on page 23 of his direct testimony recommends
8 the use on my UGI Gas Exhibit D average and excess methodology to allocate
9 the final revenue increase among the various customer classes. Mr. Watkins
10 recommends the rejection of all of my cost of service studies on page 15 of his
11 direct testimony.

12
13 **Q. What is your overall response to these interruptible service cost allocation**
14 **proposals?**

15 A. Cost of service studies are intended to provide guidance in constructing
16 appropriate rate designs by appropriately determining the costs of serving
17 differing customer groups. It is my understanding that UGI Gas does not design
18 its distribution mains to serve interruptible service loads, or, stated another way,
19 only designs its distribution mains to serve the peak day requirements of firm
20 service customers, with interruptible service being offered and available only
21 when main capacity is not needed by firm service customers. UGI Gas witness
22 Szykman addresses how UGI Gas believes the revenues derived from

1 interruptible service offerings should be handled for ratemaking purposes, but
2 from a cost of service perspective I think it is clear that UGI Gas's mains would
3 not be designed and constructed in any meaningfully different way if interruptible
4 service was not offered at all. The attempts by some of the witnesses I respond
5 to below to suggest otherwise, simply because not all interruptible customers are
6 not interrupted on on-peak days, is not persuasive. While I understand there
7 may be a desire by certain parties to treat interruptible revenues in a different
8 manner than UGI Gas has proposed, from a cost causation perspective I simply
9 think it is false to suggest that interruptible service customers cause a significant
10 portion of system mains cost, and I believe my proposed cost allocation
11 approach is more than fair from a cost causation perspective.

12
13 **I&E Statement No. 5 – Ethan H. Cline**

14 **Q. On pages 22-23 of his direct testimony, I&E witness Ethan H. Cline**
15 **recommends that the Commission only rely on your COSS which utilizes**
16 **the Average and Excess methodology to allocate mains investment to the**
17 **interruptible class. What is your reaction to this proposal?**

18 **A.** For the reasons stated above, I believe that my UGI Gas Exhibit D COSS, which
19 shows the costs that would be allocated to the interruptible class based on the
20 average and excess method over-allocates costs to interruptible service
21 customers since no portion of the mains cost is incurred to serve interruptible
22 service customers. Thus, I believe using the average of my studies submitted in

1 UGI Gas Exhibit D and D-1 is a balanced and reasonable approach for
2 determining the costs to serve the interruptible class in this proceeding.
3

4 **Q. On page 25 of his direct testimony Mr. Cline recommends that UGI Gas's**
5 **customer cost analysis be rejected because it is inconsistent with the**
6 **results in an Aqua Pennsylvania base rate case at Docket No. R-0038805.**
7 **Is his assessment of the Aqua case correct?**

8 A. No it is not. I was the witness for Aqua (formerly Pennsylvania Suburban Water
9 Company) in the 2004 rate case, and it was my customer cost analysis that was
10 used to support the customer charges that the Commission ultimately approved
11 in that case. My methodology was reaffirmed in a 2012 PPL case at Docket No.
12 R-2012-2290597, which Mr. Cline incorrectly suggests is inconsistent with the
13 methodology I used in my customer cost analysis in this case. I have attached,
14 as UGI Gas Exhibit PRH-2, the original exhibit from the 2004 Aqua case that
15 clearly shows the inclusion of several customer cost items that Mr. Cline
16 removed in his analysis.
17

18 **Q. Mr. Cline omits Miscellaneous customer accounts expense and**
19 **uncollectible revenue in accounts 904 and 905. Is this consistent with**
20 **Aqua?**

21 A. No it is not. Refer to UGI Gas Exhibit PRH-2, page 5. Bad Debt Expense
22 (uncollectible accounts) and Miscellaneous Expenses under the Customer

1 Accounting and Collecting Expenses are both included in column 9, "Billing and
2 Collecting". The total of column 9 for billing and collecting of \$8,215,661 is
3 carried forward to page 1 of the exhibit and included in the calculation of total
4 customer costs. Thus, the Aqua customer cost analysis adopted by the
5 Commission clearly included uncollectible accounts and miscellaneous customer
6 expenses. Mr. Cline's proposed adjustment for these expense items should
7 accordingly be rejected.

8
9 **Q. On page 26 of his direct testimony does Mr. Cline also recommend the**
10 **exclusion of Customer assistance expenses (908)?**

11 A. Yes, but customer assistance expenses are similar to "services on customers'
12 premises", as shown in Aqua customer cost analysis on page 4 of UGI Gas
13 Exhibit PRH-2, and should not be excluded. These are expenses required to
14 respond to customer inquiries or problems they may have with their service.
15 Such costs certainly qualify as customer costs. Mr. Cline provides no basis to
16 exclude these expenses and his recommendation should be rejected.

17
18 **Q. On page 26 of his direct testimony, does Mr. Cline also recommend the**
19 **exclusion of informational and instructional expense, miscellaneous**
20 **customer service and information expense (910 and 916)?**

21 A. Yes, but again exclusion of these costs from a customer cost analysis is
22 inappropriate. Customer information and miscellaneous customer service

1 expenses are expenses that provide standard information to customers
2 concerning their service and conservation/safety tips. Much of the information is
3 required to be sent to customers. Consistent with Aqua, these expenses qualify
4 as *customer costs and are appropriately included in customer charges.*

5
6 **Q. On pages 26-27 of his direct testimony, does Mr. Cline also recommend the**
7 **exclusion of administrative and general expenses with the exception of**
8 **employee pension and benefits (907 and 911)?**

9 A. Yes, and my customer cost analysis already excludes all administrative and
10 general expenses except for an allocable portion of employee pensions and
11 benefits, which is consistent with the Aqua case.

12
13 **Q. On pages 26-27 of his direct testimony, does Mr. Cline also recommend the**
14 **exclusion of certain demonstration and advertising expense (912 and 913)**
15 **(p. 26) as well as \$6,667,606 of Customer Records and Collection Expense**
16 **(903) because they are not customer related and not typically included in a**
17 **customer charge?**

18 A. Yes. Most of the expenses in Accounts 912, 913, and 903 that Mr. Cline would
19 exclude are associated with the Company's Universal Service Program Rider
20 (USP) or the Energy Efficiency & Conservation Rider (EEC). These programs
21 include costs of \$6,356,605 for USP and \$2,658,506 for EEC. I have accounted
22 for these costs in my customer cost calculation by deducting the revenues

1 received from the USP and EEC Riders, totaling \$9,015,112, to offset these
2 costs at the bottom of Schedule G, page 33 of UGI Gas Exhibit D. Mr. Cline
3 erroneously excludes the costs and also deducts the revenues received for these
4 programs. So effectively, Mr. Cline has double-counted his adjustment and
5 therefore, his adjustment should be rejected.

6
7 **Q. What do you conclude with respect to Mr. Cline's customer cost and**
8 **customer charge recommendations?**

9 A. Based on the foregoing, Mr. Cline's customer cost analysis is flawed and not
10 consistent with Aqua as I have demonstrated. Therefore, his recommendations
11 concerning customer costs and proposed customer charges should be rejected.

12
13 **OCA Statement No. 3 - Glenn A. Watkins**

14 **Q. On page 23 of his direct testimony, does OCA witness Glenn A. Watkins**
15 **reject your proposed bifurcation of mains expense between small and large**
16 **diameters and recommend that all joint-use mains costs should be**
17 **aggregated and allocated to classes?**

18 A. Yes. However, I continue to believe that the proposed bifurcation of mains
19 expense is reasonable and should be approved. Gas generally flows from large
20 mains to small mains. Customers in the LFD class and large interruptible
21 customers generally are served from large mains, whereas the Rate R, N, DS
22 and small interruptible customers are served from large and small mains. So, it

1 is important to reflect the cost causation by separating small and large mains as
2 part of the Cost of Service Study. Thus, my UGI Gas Exhibit PRH-1 continues to
3 incorporate this allocation methodology.
4

5 **Q. On page 17 of his direct testimony, does Mr. Watkins reject your proposal**
6 **to direct assign main costs for Rate XD customers and allocate increased**
7 **main costs to interruptible service customers?**

8 A. Yes, but his alternative proposal is not reflective of cost causation and produces
9 an anomalous result. On page 11 of his direct testimony, Mr. Watkins states that
10 "[i]t is generally accepted that to the extent possible, joint costs should be
11 allocated to customer classes based on the concept of cost causation."
12 However, his cost allocation study allocates about 38.3% of the cost of mains or
13 about \$213,662,000 of rate base to 349 Rate XD and interruptible service
14 customers constituting only 0.09% of the 388,000 customers on the system. It is
15 simply not logical to assume that 349 Rate XD and interruptible service
16 customers (0.09% of total) caused 38.3% of the 5,650 miles of mains investment
17 to be constructed. As discussed above, Mr. Watkins also ignores the fact that
18 the Company does not design any of its mains to serve interruptible service
19 customers. We can all debate the merits of various main allocation methods with
20 many pages of testimony. But, the end results need to make sense – Mr.
21 Watkins's allocation methods and results do not.
22

1 **Q. Did you only use volumes as the basis for allocation?**

2 A. No. The above example shows that there is a customer component in the cost
3 responsibility for mains. The 349 customers, constituting only 0.09% of total
4 customers, cannot be responsible from a cost causation perspective for 38.3% of
5 mains investment. The other 99.91% of the customers must share a larger
6 portion of the total cost of mains than what the percent of their total volume would
7 produce.

8 However, the Commission has rejected the use of a customer component
9 for mains allocation in previous cases. Therefore, the solution is to directly
10 assign the mains used to serve the large customers, and then allocate the
11 remaining mains to the remaining classes using accepted methods.

12

13 **Q. How was this accomplished in your COSS?**

14 A. The direct assignment of mains included all 27 customers in the Rate XD-Firm
15 class and one very large Rate XD Interruptible (XD-I) customer in the
16 interruptible class. It should be noted that the large XD-I interruptible customer
17 has a total throughput of 39.4 million Mcf, or about 32.2% of the total throughput
18 on the system and is the only customer served off of a lateral directly attached to
19 an interstate pipeline, so the entirety of that investment was assigned to that
20 customer.

21 The Company, using its load forecasting model, identified the mains
22 serving each XD-Firm and XD-I customer and the percent of peak load used for

1 each identified main. Then the percentage was applied to the original cost of the
2 identified mains determined from property records. The result was about \$14.19
3 million of mains investment (rate base) identified as serving the 27 Rate XD-Firm
4 customers and one XD-I customer. This \$14.19 million of mains investment was
5 added to the \$35.17 million of mains investment allocated to the other 321
6 Interruptible customers resulting in a total of \$49.36 million allocated to the Rate
7 XD and interruptible service classes. This represents about 8.8% of the total
8 mains investment rather than the \$213.7 million or 38.3% that Mr. Watkins used.
9 The direct assignment of mains for Rate XD customers is appropriate and
10 together with the allocation to the Interruptible class produces a reasonable
11 result, unlike Mr. Watkins's allocation.

12
13 **Q. How did you allocate mains to the other classes?**

14 A. I used the Average and Excess (A&E) method with no excess capacity allocated
15 to the interruptible service class and an adjustment to the LFD class for small
16 mains.

17
18 **Q. Mr. Watkins uses the Peak and Average (P&A) method. Why did you use
19 the A&E method?**

20 A. The Commission's most recent decision in a fully litigated gas case approved my
21 study and methodology using the Average and Excess method. It was submitted
22 in 2006 for a PPL Gas Utilities (now UGI-CPG) base rate case at Docket No. R-

1 00061398. In my PPL Gas cost allocation study, I weighted the average use
2 40% and excess capacity 60%, based on the system load factor in a manner
3 similar to my UGI Gas COSS. It is unclear why Mr. Watkins ignores this most
4 recent Commission decision concerning cost allocation methods.

5
6 **Q. Why do you prefer the A&E method over the P&A method?**

7 A. The Peak and Average method places too much weight on average use. In fact,
8 it double counts the average demand because it uses average demand twice,
9 i.e., once in the calculation of average demand and again in the calculation of
10 peak demand. This is so because peak demand figures include the entire
11 demand, including average use. Mr. Watkins's P&A allocator therefore double-
12 counts average use and places little emphasis on the peak demands of
13 customers that UGI Gas must design its system to meet. The Average and
14 Excess method used in my study properly weights the portion of the system on
15 average demands and the portion of the system on the excess capacity of peak
16 demands.

17
18 **Q. Please illustrate how the Peak and Average method is flawed.**

19 A. Take, for example, a system that has a peak day of 1000 units and 400 units on
20 the average day. The peak and average method will give equal weight to the
21 average of 400 units per day and equal weight to the peak day of 1000 units.
22 But, the 400 average day units are also included in the 1000 peak day units so

1 the average is counted twice. In the Average and Excess method the 400
2 average day units and the amount over the average of 600 units (excess
3 capacity) are weighted so that the average is not double counted.
4

5 **Q. Is the Peak and Average method identified as a standard method of cost**
6 **allocation in AGA's Gas Rate Fundamentals?**

7 A. No, it is not. The three main cost allocation methods discussed are the
8 Coincident Demand (Peak), the Non-coincident Demand, and the Average and
9 Excess methods.
10

11 **Q. You previously mentioned you made an adjustment to the LFD class in**
12 **your COSS. Please explain this adjustment.**

13 A. LFD customers are large customers that do not qualify for the XD class. Only
14 19% of the customers in the LFD class are served from small mains 2-inches and
15 smaller. Therefore, I only included 19% of the LFD volumes for the allocation of
16 small mains. Assuming the LFD customers served from small mains are smaller
17 than the average LFD customer, including 19% of the volume was conservative.
18 I would have included less than 19% if I had used the actual volumes from those
19 smaller LFD customers.
20

21 **Q. You mentioned that no excess capacity was allocated to interruptible**
22 **customers. Why did you conclude this was appropriate?**

1 A. Interruptible service customers can be interrupted during periods of peak
2 demand, and apart from the main direct assigned to the one large rate XD-I
3 customer, all of UGI Gas's mains are designed to only meet the peak day
4 requirements of firm service customers.

5
6 **Q. In your cost allocation study presented in UGI Gas Exhibit D-1, you did not
7 allocate any mains investment to the interruptible class. Please explain.**

8 A. With the exception of the direct assignment of mains for the one XD-I customer
9 explained earlier in my rebuttal testimony, I also prepared a cost allocation that
10 did not allocated any additional mains investment to the interruptible class. This
11 recognizes that the distribution system is only designed to meet firm service, not
12 interruptible. The Company believes there would be no difference in the
13 investment of mains whether there were interruptible customers on the system or
14 not. So, UGI Gas Exhibit D-1 reflects how the system was designed rather than
15 how the system is used. UGI Gas Exhibit D-2 averages (50/50) the two cost
16 allocation studies for Exhibit D (used) and Exhibit D-1 (designed).

17
18 **Q. On page 19 of his direct testimony, Mr. Watkins asserts that it is
19 appropriate to allocate more cost to interruptible service customers
20 because on a cold day on January 13, 2015, UGI Gas only curtailed a small
21 portion of interruptible service loads. Is this suggestion appropriate?**

22 A. No, because while the weather was cold on January 13, 2015, it was not a

1 design peak day to which the Company designs its system. It is also irrelevant,
2 and in fact properly expected, that interruptions happen to occur more frequently
3 only as colder temperatures become increasingly extreme. Natural gas is
4 primarily used for heating purposes, and customers would not consider natural
5 gas to be an acceptable heating source if it was only available on moderately
6 cold days. Instead, firm service customers expect natural gas to be available on
7 even the coldest days, which happen infrequently, and UGI Gas must
8 accordingly design its system to be able to meet the needs of its firm service
9 customers on the coldest or "design peak" days, which occur infrequently. Thus,
10 it is not unexpected that on the many non-peak days when heat sensitive loads
11 are at less than design peak that there is space available of UGI Gas's system to
12 accommodate interruptible service loads. This does not mean, however, or
13 present evidence of, any attempt by UGI Gas to design its system to meet
14 interruptible service loads under design peak conditions. Thus, the statistics
15 cited by Mr. Watkins on page 19 of his direct testimony do not support the notion
16 that there is a cost causation basis for allocating increased system costs to
17 interruptible service customers, nor do these statistics support his
18 recommendation on page 33 of his direct testimony to allocate cost responsibility
19 for 80,000 MCF of load during peak conditions to the interruptible service
20 customer class.

21
22 **Q. Would the presence of some interruptible service levels on even a design**

1 **peak day prove that UGI Gas is designing its system to meet interruptible**
2 **service loads?**

3 A. No. While UGI Gas designs its system to meet the design peak needs of its firm
4 service customers, such firm service customer loads can sometimes leave UGI
5 Gas's system leaving available space on some segments of its system on a
6 design peak day, but I am told because of general system load growth such
7 situations are relatively rare and in any event do not mean that the system
8 segment was designed to meet interruptible service loads. In addition, the one
9 XD-I customer is the only customer served by the facilities serving it. This load
10 will not be interrupted except on a rare occasion when there is inadequate gas
11 being delivered from the interstate pipeline delivering its gas.

12
13 **Q. On pages 27-28 of his direct testimony, does Mr. Watkins argue that it is**
14 **not appropriate to direct assign main costs for Rate XD customers?**

15 A. Yes, on the theory that many Rate XD customers are not bypass candidates
16 because of the location of their facilities and their lack of eminent domain
17 authority. However, the threat of bypass is not a consideration for cost
18 allocation, and is instead a factor that is considered in negotiating an appropriate
19 rate under the Rate XD provisions of UGI Gas's tariff. Proper cost allocation
20 involves cost causation as previously explained and recognized on page 11 of
21 Mr. Watkins's own testimony. Even if in certain instances a Rate XD customer
22 does not present a bypass threat, it is still appropriate to properly allocate the

1 costs associated with providing service for that customer. Although not relevant
2 for determining cost causation or for considering the reasonableness of direct
3 assignment, I would also note that the threat of bypass is only one consideration
4 in negotiating rates for Rate XD customers, since their loads may be at risk
5 because of the availability of alternate energy sources or because of their ability
6 to shift operations to other geographic locations. These matters are more
7 extensively discussed in Mr. Stoyko's rebuttal testimony, UGI Gas Statement No.
8 7-R.

9
10 **OSBA Statement No. 1 - Robert D. Knecht**

11 **Q. Please summarize OSBA witness Robert D. Knecht's recommendations**
12 **concerning your COSSs.**

13 A. Mr. Knecht (a) accepts, based on prior Commission precedent, my use of the
14 A&E COSS methodology, (b) ultimately accepts my proposed direct assignment
15 of main methodology and uses it in his COSS, (c) rejects my proposed allocation
16 between small and large mains for being unsupported, (d) accepts my service
17 line allocation methodology, (e) accepts my UGI Gas Exhibit D A&E methodology
18 for allocating costs to the interruptible service customer class, but rejects my
19 proposed averaging of the results with my UGI Gas Exhibit D-1 COSS results, (f)
20 adopts a significantly different peak day estimate for use in his COSS, (g) rejects
21 my proposed meter cost allocation and proposes a different allocation and (h)
22 proposes to reallocate certain Cash Working Capital ("CWC") expenses to UGI

1 Gas's Gas Procurement Charge.

2

3 **Q. What is your reaction to his rejection of allocating costs between small and**
4 **large mains as being unsupported?**

5 A. The Company believes that its allocation of costs between small and large mains
6 *is supportable and reasonable. In particular, the Company's allocation of 19% of*
7 *small mains to the Rate LFD class is supported by a reasonable comparison to*
8 *the known quantity of mains utilized by the Rate XD customer class, as*
9 *determined by the Company's direct assignment methodology. The direct*
10 *assignment, which was based on hydraulic modeling utilizing engineering*
11 *principals, shows that of all mains utilized by the large firm Rate XD customers,*
12 *only 6.7% represent small mains, or mains of size 2" and less. Accordingly, for*
13 *very large customers (Rate XD) an amount of 6.7% of small mains has been fully*
14 *supported in the Company's COSS. Rate LFD customers however are also large*
15 *users, with annual usage equal to 480 times that of the average residential*
16 *customer and 85 times that of the average Rate N/NT customer. Comparatively,*
17 *Rate XD customers have annual usage equal to 20 times that of an average*
18 *Rate LFD customer. Thus, it is reasonable to assume that the Company's*
19 *allocation of small mains should generally be closer to that of the Rate XD class*
20 *than to that of the residential and small commercial classes. This reasonable*
21 *approach is reflected in the allocation factor of 19.0% which I have applied to*
22 *small mains in relation to Rate LFD; it is much larger than the 6.7% applicable to*

1 the Rate XD class, but not as large as the 100% applicable to the residential and
2 small commercial classes. By comparison Mr. Knecht makes no differentiation for
3 reasonable factors related to customer size. Accordingly, I have retained the use
4 of the 19% factor for Rate LFD.main utilization.
5

6 **Q. What is your reaction to Mr. Knecht's proposal to use your UGI Gas Exhibit**
7 **D A&E COSS results to allocate costs to the interruptible service class?**

8 A. For the reasons previously stated, I believe the use of this COSS result alone
9 over-allocates costs to the interruptible service class based on cost causation
10 principles.
11

12 **Q. What is your reaction to Mr. Knecht's adoption of a different peak day**
13 **assessment in his COSS?**

14 A. I am informed by the Company that his methodology is unsupported and
15 inconsistent with the methodology he has accepted in the Company's annual
16 purchased gas cost review proceedings. UGI Gas witness Angelina Borelli
17 addresses this issue in her rebuttal testimony, UGI Gas Statement No. 13-R.
18 However, Mr. Knecht has correctly identified an inconsistency in the peak
19 demand value for the Rate LFD class, which I have corrected in my modified
20 COSS attached as UGI Gas Exhibit PRH-1.
21

22 **Q. Mr. Knecht claims that you under-assigned the depreciation cost**

1 **associated with the main directly assigned to the one large XD-Interruptible**
2 **customer. Is he correct?**

3 A. No, he is not. The higher depreciation expenses Mr. Knecht uses of \$62,266
4 was prior to the acquisition of this main in November 2013. The \$9,015 I used is
5 based on the composite accrual rate for the FPFTY depreciation claim for mains
6 applied to the original cost of the main directly assigned to this XD-Interruptible
7 customer. The \$9,015 depreciation expense reflects the amount of depreciation
8 that will be booked going forward.

9
10 **Q. What is your reaction to Mr. Knecht's proposed alternative method for**
11 **allocating meter costs?**

12 A. Mr. Knecht's approach to the allocation of meters ignores the fact that the LFD
13 and XD classes are allocated a substantial investment per customer in Account
14 385, Industrial Measuring and Regulating Equipment using Factor 6B. The LFD
15 class is allocated approximately \$7,979 per customer and the XD class is
16 allocated \$11,710 per customer. However, I would agree that Factor 6 reflects a
17 higher weighting for Rate N than what previous studies show. So, I revised the
18 average residential meter cost to reflect a more reasonable level and used Mr.
19 Knecht's 7.83 ratio for the Rate N class and allocated the remaining investment
20 for Account 381 to the remaining classes. This revision to Factor 6 is reflected in
21 UGI Gas Exhibit PRH-1.

1 **Q. What is your reaction to Mr. Knecht's proposal to reallocate CWC costs to**
2 **the GPC?**

3 A. I am informed by the Company that this proposal is unwarranted since gas
4 procurement CWC costs are incurred for choice customers and PGC customers
5 alike since the Company purchases storage supplies and then resells them to
6 Choice suppliers in the winter at summer index prices without mark-up for the
7 carrying costs the Company incurs. However, I have modified the allocation of
8 Gas Storage Inventory to reflect the addition of Choice volumes using Factor 1A.
9 This modification is also reflected in UGI Gas Exhibit PRH-1. This issue is dealt
10 with more extensively in the rebuttal testimony of David Lahoff, UGI Gas
11 Statement No. 6-R.

12

13 **Q. Does this conclude your rebuttal testimony?**

14 A. Yes, it does.

UGI Gas Exhibit PRH-1

UGI UTILITIES, INC. - GAS DIVISION

Docket No. R-2015-2518438

REVISED

COST OF SERVICE ALLOCATION STUDY

AS OF SEPTEMBER 30, 2017

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC
Harrisburg, Pennsylvania

UGI UTILITIES, INC. - GAS DIVISION

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
BY SERVICE CLASSIFICATION FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2017
WITHOUT GAS COSTS

Service Classification (1)	Pro Forma Cost of Service		Pro Forma Margin Revenues,				Revenue Increase	
	Amount (2)	Percent (3)	Under Present Rates		Under Proposed Rates		Amount (8)	Percent Increase (9)
			Amount (4)	Percent (5)	Amount (6)	Percent (7)		
Rate R	\$ 184,661,321	67.2%	\$ 108,668,733 *	50.2%	\$ 152,001,162	55.4%	\$ 43,332,429	39.9%
Rate N	59,051,334	21.5%	55,100,277	25.5%	67,598,056	24.6%	12,495,779	22.7%
Rate DS	6,304,251	2.3%	10,602,234	4.9%	11,583,714	4.2%	981,480	9.3%
Rate LFD	12,597,668	4.6%	25,008,284	11.6%	26,762,521	9.7%	1,754,237	7.0%
Rate XD Firm	3,441,651	1.3%	11,785,496	5.5%	11,785,496	4.3%	-	0.0%
Interruptible	<u>8,573,721</u>	<u>3.1%</u>	<u>4,900,000</u>	<u>2.3%</u>	<u>4,900,000</u>	<u>1.8%</u>	<u>-</u>	<u>0.0%</u>
Total	<u>\$ 274,629,946</u>	<u>100.0%</u>	<u>\$ 216,065,024</u>	<u>100.0%</u>	<u>\$ 274,628,950</u>	<u>100.0%</u>	<u>\$ 58,563,925</u>	<u>27.1%</u>
Other Operating Revenues	<u>4,480,000</u>		<u>4,480,000</u>		<u>4,480,000</u>		<u>0</u>	
Total	<u>\$279,109,946</u>		<u>\$220,545,024</u>		<u>\$279,108,950</u>		<u>\$58,563,925</u>	<u>26.6%</u>

* Includes GL.

UGI UTILITIES, INC. - GAS DIVISION

DEVELOPMENT OF RATE OF RETURN BY SERVICE CLASSIFICATION
UNDER PRESENT RATES

Item (1)	Cost of Service (2)	Rate R (3)	Rate N (4)	Rate DS (5)	Rate LFD (6)	Rate XD-Firm (7)	Interruptible (8)
1. Revenues From Tariff Sales and Transportation	\$ 216,065,024	\$ 108,668,733	\$ 55,100,277	\$ 10,602,234	\$ 25,008,284	\$ 11,785,496	\$ 4,800,000
2. Other Revenues	4,480,004	2,860,942	1,294,236	233,855	46,105	12,469	32,397
3. Total Operating Revenues	220,545,028	111,529,675	56,394,513	10,836,089	25,054,389	11,797,965	4,932,397
4. Less: Operating Expenses	164,811,789	114,249,976	33,395,118	3,401,508	7,032,528	2,012,109	4,720,550
5. Return and Income Taxes	55,733,239	(2,720,301)	22,999,395	7,434,581	18,021,861	9,785,856	211,847
6. Less: Interest Expense	20,044,000	12,778,050	4,770,472	555,219	996,187	256,563	687,509
7. Taxable Income	35,689,239	(15,498,351)	18,228,923	6,879,362	17,025,674	9,529,293	(475,662)
8. Less: Income Taxes	13,962,000	(6,065,093)	7,131,790	2,691,874	6,661,270	3,727,854	(185,695)
9. Net Return (Ln 5 - Ln 8)	41,771,239	3,344,792	15,867,605	4,742,707	11,360,591	6,058,002	397,542
10. Original Cost Measure of Value (Factor 15.)	923,678,383	588,909,941	219,810,984	25,569,861	45,874,435	11,833,586	31,679,576
11. Rate of Return, Percent	4.52%	0.57%	7.22%	18.55%	24.76%	51.19%	1.25%
12. Relative Rate of Return	1.00	0.13	1.60	4.10	5.48	11.32	0.28

UGI UTILITIES, INC. - GAS DIVISION

DEVELOPMENT OF RATE OF RETURN BY SERVICE CLASSIFICATION
UNDER PROPOSED RATES

Item (1)	Cost of Service (2)	Rate R (3)	Rate N (4)	Rate DS (5)	Rate LFD (6)	Rate XD-Firm (7)	Interruptible (8)
1. Revenues From Tariff Sales and Transportation	274,628,950	\$ 152,001,162	\$ 67,596,056	\$ 11,583,714	\$ 26,762,521	\$ 11,785,496	\$ 4,900,000
2. Other Revenues	4,480,002	2,855,712	1,297,691	234,624	46,648	12,435	32,892
3. Total Operating Revenues	279,108,952	154,856,874	68,893,747	11,818,338	26,809,169	11,797,931	4,932,892
4. Less: Operating Expenses	165,785,945	115,284,314	33,377,913	3,399,800	7,012,113	2,003,538	4,708,267
5. Return and Income Taxes	113,323,007	39,572,560	35,515,834	8,418,538	19,797,056	9,794,393	224,625
6. Less: Interest Expense	20,044,000	12,782,059	4,768,468	555,219	994,182	256,563	687,509
7. Taxable Income	93,279,007	26,790,501	30,747,366	7,863,319	18,802,874	9,537,830	(462,884)
8. Less: Income Taxes	37,857,000	10,872,530	12,477,667	3,191,345	7,631,971	3,872,771	(189,285)
9. Net Return (Ln 5 - Ln 8)	75,466,007	28,700,030	23,038,167	5,227,193	12,165,085	5,921,622	413,910
10. Original Cost Measure of Value (Factor 15.)	923,709,065	589,017,095	219,775,321	25,559,648	45,843,798	11,823,374	31,689,829
11. Rate of Return, Percent	8.17%	4.87%	10.48%	20.45%	26.54%	50.08%	1.31%
12. Relative Rate of Return	1.00	0.60	1.28	2.50	3.25	6.13	0.16

UGI UTILITIES, INC. - GAS DIVISION

SUMMARY OF COST OF SERVICE BY SERVICE CLASSIFICATION

Cost Function (1)	Cost of Service (Schedule E) (2)	Rate R (3)	Rate N (4)	Rate DS (5)	Rate LFD (6)	Rate XD Firm (7)	Interruptible (8)
<u>Volumetric Costs</u>							
Rate R	\$ 80,069,341	\$ 80,069,341					
Rate N	35,217,015		\$ 35,217,015				
Rate DS	5,380,557			\$ 5,380,557			
Rate LFD	10,263,730				\$ 10,263,730		
Rate XD Firm	3,244,864					\$ 3,244,864	
Rate IS/IL	7,938,217						\$ 7,938,217
Total Volumetric Costs	<u>122,113,724</u>	<u>60,069,341</u>	<u>35,217,015</u>	<u>5,380,557</u>	<u>10,263,730</u>	<u>3,244,864</u>	<u>7,938,217</u>
<u>Customer Costs</u>							
Rate R	\$ 124,591,980	\$ 124,591,980					
Rate N	23,834,319		\$ 23,834,319				
Rate DS	923,694			\$ 923,694			
Rate LFD	2,333,938				\$ 2,333,938		
Rate XD Firm	196,787					\$ 196,787	
Rate IS/IL	635,504						\$ 635,504
Total Customer Costs	<u>152,518,222</u>	<u>124,591,980</u>	<u>23,834,319</u>	<u>923,694</u>	<u>2,333,938</u>	<u>196,787</u>	<u>635,504</u>
Total Excluding Gas Costs	<u>\$ 274,629,946</u>	<u>\$ 184,661,321</u>	<u>\$ 59,051,334</u>	<u>\$ 6,304,251</u>	<u>\$ 12,597,668</u>	<u>\$ 3,441,651</u>	<u>\$ 8,573,721</u>

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL, ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Rat. (2)	Cost of Service (3)	Volume Costs							Customer Costs				
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)
OPERATION AND MAINTENANCE EXPENSES														
NATURAL GAS PRODUCTION EXPENSES														
710		0	-	-	-	-	-	-	-	-	-	-	-	-
717	1	0	-	-	-	-	-	-	-	-	-	-	-	-
725-736	1	0	-	-	-	-	-	-	-	-	-	-	-	-
740-742	1	68,000	50,259	17,741	-	-	-	-	-	-	-	-	-	-
		68,000	50,259	17,741	-	-	-	-	-	-	-	-	-	-
Production and Gathering														
750 - 760	1	-	-	-	-	-	-	-	-	-	-	-	-	-
761 - 769	1	-	-	-	-	-	-	-	-	-	-	-	-	-
770 - 783	1	-	-	-	-	-	-	-	-	-	-	-	-	-
784 - 791	1	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-
Other Gas Supply Expenses														
800 - 803	1	-	-	-	-	-	-	-	-	-	-	-	-	-
804	1	-	-	-	-	-	-	-	-	-	-	-	-	-
813	1	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-
		68,000	50,259	17,741	-	-	-	-	-	-	-	-	-	-
OTHER STORAGE EXPENSE														
840	4	-	-	-	-	-	-	-	-	-	-	-	-	-
841	4	-	-	-	-	-	-	-	-	-	-	-	-	-
142 - 842.3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-
TRANSMISSION EXPENSE														
850 - 860	4	-	-	-	-	-	-	-	-	-	-	-	-	-
861 - 867	4	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-
DISTRIBUTION EXPENSES														
Operation														
870	10	2,402,000	465,968	288,240	45,158	89,354	43,476	88,153	958,398	337,001	15,373	57,848	4,804	8,407
871	4a	534,000	202,764	125,204	18,282	46,314	63,876	97,559	-	-	-	-	-	-
872		-	-	-	-	-	-	-	-	-	-	-	-	-
873	2	1,000	188	118	27	119	142	411	-	-	-	-	-	-
874														
	5	2,077,287	1,104,078	683,220	110,719	65,019	-	114,251	-	-	-	-	-	-
	17	3,189,713	1,413,058	873,890	136,932	399,067	126,472	220,295	-	-	-	-	-	-
	6C	5,247,000	-	-	-	-	-	-	4,510,321	636,481	41,451	32,531	3,673	22,502
875	4a	425,000	155,550	98,050	14,025	35,530	49,003	74,843	-	-	-	-	-	-
876	6B	417,000	-	-	-	-	-	-	-	97,203	-	284,027	25,103	687
877	4a	348,000	127,368	78,648	11,484	29,093	40,124	61,283	-	-	-	-	-	-
878	6	1,959,000	-	-	-	-	-	-	1,007,122	860,600	34,674	27,230	1,587	18,806
879	6	1,281,000	-	-	-	-	-	-	658,562	568,836	22,674	17,806	1,025	12,298
880	10	2,527,000	490,238	303,240	47,508	94,004	45,739	92,741	1,008,273	354,538	16,173	60,648	5,054	8,845
881	10	69,000	13,388	8,289	1,287	2,687	1,249	2,532	27,531	9,681	442	1,859	138	242
		20,477,000	3,972,616	2,456,686	385,432	761,067	370,081	752,068	8,170,207	2,873,120	130,787	491,646	41,364	71,627

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs							Customer Costs					
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)	
Maintenance															
885	11	786,000	316,522	195,793	31,047	58,793	18,707	45,745	82,451	25,309	1,179	9,038	768	629	
886	18	3,000	1,437	869	141	268	74	182	-	-	-	-	-	-	
887	5	5,287,245	2,810,171	1,738,975	291,819	163,491	-	290,798	-	-	-	-	-	-	
	17	8,067,756	3,596,006	2,224,280	348,527	1,015,730	321,903	500,709	-	-	-	-	-	-	
888	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
889	4a	187,000	61,122	37,742	5,511	13,961	19,255	29,409	-	-	-	-	-	-	
890	6B	242,000	-	-	-	-	-	-	-	56,410	-	170,634	14,568	387	
891	4a	436,000	159,576	98,536	14,368	36,450	50,271	76,780	-	-	-	-	-	-	
892	6C	1,840,000	-	-	-	-	-	-	1,409,744	188,932	12,956	10,168	1,148	7,052	
893	6	817,000	-	-	-	-	-	-	317,200	273,686	10,621	8,576	494	5,923	
894	11	102,000	41,075	25,408	4,029	7,830	2,428	5,936	10,700	3,284	153	1,173	102	82	
895	11	(178,000)	(70,875)	(43,642)	(6,952)	(13,765)	(4,189)	(10,242)	(18,482)	(5,687)	(264)	(2,024)	(179)	(141)	
		17,172,001	6,915,634	4,277,781	678,501	1,265,159	408,448	999,328	1,801,633	552,154	24,845	197,566	16,922	13,932	
Total Distribution Expenses		37,649,001	10,888,250	6,734,669	1,063,933	2,048,223	778,530	1,731,394	9,871,840	3,425,274	153,732	639,112	68,286	85,789	
CUSTOMER ACCOUNTING EXPENSES															
<i>Operation</i>															
901	7	425,000	-	-	-	-	-	-	361,395	42,075	638	510	43	340	
902	7	1,001,000	-	-	-	-	-	-	898,297	99,099	1,502	1,201	100	801	
903	7	13,681,000	-	-	-	-	-	-	12,277,328	1,354,419	20,522	16,417	1,368	10,845	
904	19	5,811,000	1,781,484	134,987	-	-	-	-	3,372,781	217,384	33,666	44,327	-	26,372	
905	7	359,000	-	-	-	-	-	-	321,269	35,442	537	430	36	286	
		21,078,000	1,781,484	134,987	-	-	-	-	17,251,971	1,748,419	66,666	62,888	1,847	38,744	
CUSTOMER SERVICE AND INFORMATION EXPENSES															
<i>Operation</i>															
907	7	184,000	-	-	-	-	-	-	147,173	16,236	248	197	18	131	
908	9	1,308,000	-	-	-	-	-	-	1,308,000	-	-	-	-	-	
909	7	721,000	-	-	-	-	-	-	647,025	71,379	1,082	865	72	577	
910	7	116,000	-	-	-	-	-	-	104,098	11,484	174	139	12	93	
		2,309,000	-	-	-	-	-	-	2,204,296	99,099	1,502	1,201	100	801	
SALES EXPENSES															
<i>Operation</i>															
911	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
912	8	3,635,000	-	-	-	-	-	-	3,274,045	360,950	-	-	-	-	
913	8	111,000	-	-	-	-	-	-	99,978	11,022	-	-	-	-	
916	8	104,000	-	-	-	-	-	-	93,673	10,327	-	-	-	-	
		3,850,000	-	-	-	-	-	-	3,467,696	382,305	-	-	-	-	
ADMINISTRATIVE AND GENERAL EXPENSES															
<i>Operation</i>															
920	12	9,958,000	1,844,707	1,054,652	163,311	313,877	119,496	268,666	5,048,706	658,338	32,081	115,613	8,962	18,820	
921	12	9,839,000	1,882,487	1,020,770	158,090	303,629	115,668	230,253	4,888,973	840,521	31,899	111,812	8,675	18,314	
923	12	9,243,000	1,805,158	978,834	151,565	291,155	110,918	249,501	4,686,201	605,990	30,502	107,219	8,319	17,682	
924	12	195,000	38,084	20,651	3,198	8,143	2,340	5,265	98,985	17,004	644	2,262	176	371	
925	12	7,041,000	1,375,107	743,642	115,472	221,782	64,482	190,107	3,589,787	613,975	23,235	91,678	6,337	13,379	
928	13	11,272,000	2,024,451	1,200,468	187,115	362,958	152,172	328,015	5,873,131	1,204,877	45,068	154,426	12,399	24,796	
928	16	628,000	135,648	79,505	12,126	23,173	7,348	17,636	286,305	56,269	2,575	5,275	440	1,444	
930	12	678,000	132,413	71,800	11,119	21,357	8,136	18,308	343,748	59,122	2,237	7,885	610	1,288	
930	12	1,517,000	266,270	160,650	24,879	47,766	18,204	40,959	768,119	132,282	5,006	17,937	1,385	2,882	
931	12	277,000	54,098	29,334	4,543	8,728	3,324	7,479	149,439	24,154	814	3,213	249	526	
		50,448,000	9,688,523	5,362,200	831,422	1,600,390	622,096	1,388,709	25,405,272	4,622,632	174,871	606,858	47,632	99,483	

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs							Customer Costs					
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate OS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)	
Maintenance															
932 Maintenance of General Plant	12	1,435,000	280,256	151,967	23,534	45,203	17,220	38,745	727,545	125,132	4,736	10,648	1,292	2,727	
935 Maintenance of General Plant	12	12,000	2,344	1,271	197	378	144	324	6,064	1,048	40	139	11	23	
Total Maintenance		1,447,000	282,600	153,238	23,731	45,581	17,364	39,069	733,609	126,178	4,776	10,785	1,303	2,750	
Total Administrative & General Expenses		51,885,000	9,971,123	5,915,444	855,183	1,845,977	639,480	1,425,778	26,138,901	4,748,810	179,847	623,643	48,835	102,233	
Total Operation and Maintenance Expenses		118,847,001	22,691,118	12,402,841	1,919,688	3,692,302	1,417,990	3,177,172	59,035,804	10,493,807	393,748	1,378,841	108,788	227,837	
DEPRECIATION AND AMORTIZATION EXPENSE															
DISTRIBUTION PLANT															
305 Manufactured Gas Plant Site Remediation	1	207,811	153,593	54,218	-	-	-	-	-	-	-	-	-	-	
375 Structures And Improvements	18	27,812	13,223	9,179	1,301	2,488	676	1,784	-	-	-	-	-	-	
378 Mains - Small	5	5,007,323	2,681,382	1,648,909	268,890	158,729	-	275,403	-	-	-	-	-	-	
Mains - Large	4	7,640,828	3,552,891	2,197,444	344,562	1,003,214	-	542,484	-	-	-	-	-	-	
Mains - Direct Assign	DA	310,359	-	-	-	-	301,344	9,015	-	-	-	-	-	-	
378 Measuring & Regulating Equipment - General	18	1,128,878	540,668	334,403	53,175	100,931	27,080	72,142	-	-	-	-	-	-	
378 Measuring & Regulating Equipment - SCADA	18	107,140	51,309	31,735	5,048	9,578	2,825	8,848	-	-	-	-	-	-	
379 Measuring & Regulating Equipment - City Gate	18	88,508	42,386	29,218	4,169	7,913	2,168	5,656	-	-	-	-	-	-	
380 Services	8C	18,440,532	-	-	-	-	-	-	15,851,481	2,236,837	145,680	114,331	12,908	79,294	
381 Meters	6	1,553,801	-	-	-	-	-	-	798,609	689,732	27,502	21,588	1,243	14,918	
381.2 Electronic Meters	6	445,941	-	-	-	-	-	-	229,207	197,909	7,891	6,197	357	4,280	
382 Meter Installations	6	1,578,782	-	-	-	-	-	-	911,851	700,821	27,944	21,945	1,283	15,156	
383 House Regulators	6	404,313	-	-	-	-	-	-	207,857	179,475	7,198	5,620	323	3,861	
384 House Regulator Installations	6	268,996	-	-	-	-	-	-	138,291	119,407	4,761	3,739	219	2,582	
385 Industrial Measuring & Regulating Equipment	6B	128,680	-	-	-	-	-	-	29,695	-	-	90,732	7,747	206	
386 Other Property on Customer Premises	6	23,414	-	-	-	-	-	-	12,037	10,393	414	325	19	225	
387 Other Equipment	10	105,852	20,535	12,702	1,890	3,938	1,916	3,885	42,235	14,851	677	2,540	212	370	
387.1 Other Equipment	10	4,539	891	545	85	189	82	167	1,812	637	29	109	9	16	
Total Distribution Plant		37,473,107	7,038,878	4,312,381	677,248	1,384,941	338,471	917,382	18,063,380	4,186,687	222,084	267,138	24,296	120,928	
GENERAL PLANT															
390 Structures And Improvements	12	1,124,839	219,893	119,127	18,448	35,434	13,499	30,372	570,324	99,091	3,712	13,049	1,012	2,137	
391 Office Furniture And Equipment	12	109,370	21,360	11,582	1,794	3,445	1,312	2,953	55,451	9,537	381	1,269	98	208	
392 Transportation Equipment	12	80,541	16,730	8,829	1,321	2,837	986	2,175	40,834	7,023	266	934	72	153	
394 Tools, Shop And Garage Equipment	12	501,958	98,032	53,157	8,232	18,812	6,023	13,553	254,493	43,771	1,858	5,823	452	954	
396 Power Operated Equipment	12	8,536	1,667	804	140	289	102	230	4,328	744	28	89	8	16	
397 Communication Equipment	12	40,154	7,841	4,252	658	1,285	482	1,084	20,358	3,501	133	486	36	76	
398 Miscellaneous Equipment	12	85,585	16,714	9,063	1,404	2,896	1,027	2,311	43,392	7,483	282	993	77	163	
399 Other Tangible Property	12	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total General Plant		1,951,043	381,037	208,914	31,998	61,458	23,411	52,078	989,180	170,130	6,438	22,833	1,755	3,707	
COMMON PLANT ALLOCATED @ 15.38%															
390.2 Structures and Improvements	12	2,114	413	224	35	67	25	57	1,072	184	7	25	2	4	
391 Office Furniture and Equipment	12	14,784	2,887	1,586	242	466	177	399	7,495	1,289	49	171	13	28	
392.1 Transportation Equipment	12	533	104	56	9	17	6	14	276	48	2	8	-	1	
Total Common Plant		17,431	3,404	1,866	286	550	208	470	8,837	1,619	68	202	15	33	
INFORMATION SERVICES (IS) ALLOCATED @ 48.83%															
391 Office Furniture and Equipment	12	1,556,244	303,934	164,808	25,522	49,022	18,675	42,019	789,016	135,704	5,136	18,052	1,461	2,957	
391.1 Office Furniture and Equip. - New CIS Software	7	2,887,067	-	-	-	-	-	-	2,572,906	283,840	4,301	3,440	287	2,294	
Total Information Services		4,423,311	303,934	164,808	25,522	49,022	18,675	42,019	3,361,922	419,544	9,437	21,492	1,688	5,251	
Less:															
Amount Charged to Clearing Accounts	12	(637,000)	(124,406)	(67,458)	(10,447)	(20,066)	(7,844)	(17,189)	(322,959)	(55,546)	(2,102)	(7,389)	(573)	(1,210)	
390.1 Struct. & Imps- Reading Service Center @ 51.74%	12	(38,944)	(7,608)	(4,124)	(639)	(1,227)	(487)	(1,051)	(19,745)	(3,396)	(129)	(452)	(35)	(74)	
Total Depreciation & Amortization Expense		43,188,948	7,883,241	4,814,035	723,968	1,374,678	370,654	994,279	22,110,815	4,712,368	235,756	303,822	27,146	128,633	

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs						Customer Costs					
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)
TAXES OTHER THAN INCOME TAXES														
408.10 Capital Stock	15	-	-	-	-	-	-	-	-	-	-	-	-	-
408.10 County and Municipal Taxes	16	177,000	38,231	22,408	3,416	8,531	2,071	5,045	80,694	15,859	726	1,487	124	407
408.10 Payroll Related Tax	13	3,397,000	810,101	381,781	56,390	108,383	45,860	98,853	1,680,956	363,139	13,588	48,530	3,737	7,473
408.10 Public Utility Assessment	16	1,663,000	359,208	210,536	32,058	61,365	19,457	47,398	758,162	149,005	6,818	15,969	1,164	3,825
408.10 Public Utility Realty Tax	15	513,000	130,610	78,874	12,004	22,777	6,310	16,418	196,378	42,220	2,206	2,719	257	1,231
408.10 Miscellaneous Taxes	16	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Taxes Other Than Income		<u>5,750,000</u>	<u>1,138,150</u>	<u>874,598</u>	<u>103,868</u>	<u>200,856</u>	<u>73,698</u>	<u>167,710</u>	<u>2,715,388</u>	<u>576,223</u>	<u>23,338</u>	<u>64,714</u>	<u>5,282</u>	<u>12,936</u>
Total Operating Expenses		<u>153,783,949</u>	<u>31,423,507</u>	<u>17,891,478</u>	<u>2,746,960</u>	<u>5,268,938</u>	<u>1,682,342</u>	<u>4,329,181</u>	<u>83,861,807</u>	<u>15,888,438</u>	<u>692,840</u>	<u>1,745,177</u>	<u>141,198</u>	<u>368,108</u>
INCOME TAXES	15	37,857,000	9,638,393	5,894,335	885,854	1,680,851	465,641	1,211,424	14,491,660	3,115,631	182,785	200,642	18,929	90,857
OPERATING INCOME AVAILABLE FOR RETURN	15	<u>75,487,000</u>	<u>18,213,688</u>	<u>11,750,212</u>	<u>1,785,828</u>	<u>3,350,735</u>	<u>828,244</u>	<u>2,414,044</u>	<u>28,888,768</u>	<u>6,210,934</u>	<u>324,568</u>	<u>389,875</u>	<u>37,734</u>	<u>181,121</u>
TOTAL COST OF SERVICE		<u>279,109,949</u>	<u>60,274,788</u>	<u>35,336,822</u>	<u>5,398,742</u>	<u>10,268,823</u>	<u>3,256,327</u>	<u>7,965,829</u>	<u>127,242,236</u>	<u>28,013,803</u>	<u>1,140,133</u>	<u>2,348,784</u>	<u>197,833</u>	<u>641,084</u>
Less: Other Revenues														
Reconnection Charges	6C	517,000	-	-	-	-	-	-	444,413	62,712	4,084	3,205	362	2,223
Rent From Gas Property	12	165,000	32,225	17,474	2,708	5,198	1,880	4,455	83,655	14,388	646	1,914	149	314
Forfeited Discounts/Penalties	20	2,998,000	-	-	-	-	-	-	1,786,655	1,028,725	208,522	-	-	1,188
Other Miscellaneous Revenues	16	802,000	173,232	101,533	15,478	29,584	9,383	22,857	345,632	71,859	3,288	6,737	581	1,845
Subtotal		<u>4,482,000</u>	<u>205,457</u>	<u>119,007</u>	<u>18,185</u>	<u>34,762</u>	<u>11,363</u>	<u>27,312</u>	<u>2,650,255</u>	<u>1,178,684</u>	<u>216,439</u>	<u>11,856</u>	<u>1,072</u>	<u>5,580</u>
TOTAL COST OF SERVICE RELATED TO TARIFF SALES AND TRANSPORTATION		<u>\$ 274,627,949</u>	<u>\$ 60,069,341</u>	<u>\$ 35,217,815</u>	<u>\$ 5,380,557</u>	<u>\$ 10,283,730</u>	<u>\$ 3,244,964</u>	<u>\$ 7,938,517</u>	<u>\$ 124,591,980</u>	<u>\$ 26,834,319</u>	<u>\$ 923,694</u>	<u>\$ 2,333,928</u>	<u>\$ 196,761</u>	<u>\$ 635,504</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 1. ALLOCATION OF COSTS WHICH VARY DIRECTLY WITH PGC SALES.

Factors are based on the pro forma average daily PGC sales volumes for each service classification.

<u>Service Classification</u> (1)	<u>Pro Forma Average Daily PGC Volumes (Mcf)</u> (2)	<u>PGC and Choice Volumes (Mcf)</u>	<u>Allocation Factor 1</u> (3)	<u>Allocation Factor 1A</u>
Volumetric Costs				
Rate R	52,240	62,313	0.7391	0.6166
Rate N	18,444	38,743	0.2609	0.3834
Rate DS			-	
Rate LFD			-	
Rate XD	-		-	
Interruptible	-		-	
Total	<u><u>70,684</u></u>	<u><u>101,056</u></u>	<u><u>1.0000</u></u>	<u><u>1.0000</u></u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTORS 2 . ALLOCATION OF COMPRESSOR STATION FUEL.

Factors are based on the pro forma average daily throughput volumes for each service classification.

<u>Service Classification</u> (1)	<u>Pro Forma Average Daily Throughput Volumes (Mcf)</u> (2)	<u>Allocation Factor 2</u> (3)
<u>Volumetric Costs</u>		
Rate R	62,313	0.1859
Rate N	38,743	0.1155
Rate DS	8,875	0.0265
Rate LFD	39,903	0.1190
Rate XD Firm	47,722	0.1423
Interruptible	<u>137,744</u>	<u>0.4108</u>
Total	<u><u>335,300</u></u>	<u><u>1.0000</u></u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 3. CALCULATION OF MAXIMUM DAY EXTRA DEMAND FACTORS.

Factors are based on the maximum day extra demand throughput for each classification.

Service Classification	Pro Forma Average Daily Throughput Volumes (Mcf)	Peak Day Capacity (Mcf)	Extra Capacity (Mcf)	Allocation Factor 3	Allocation Factor 3A
(1)	(2)	(3)	(4)=(3)-(2)	(5)	(5)
Volumetric Costs					
Rate R	62,313	355,246	292,933	0.5011	0.5536
Rate N	38,743	219,480	180,737	0.3091	0.3416
Rate DS	8,875	30,973	22,098	0.0378	0.0418
Rate LFD	39,903	73,215	33,312	0.0570	0.0630
Subtotal	149,834	678,914	529,080	0.9050	1.0000
Rate XD Firm	47,722	103,283	55,561	0.0950	-
Total	197,556	782,197	584,641	1.0000	1.0000

FACTOR 3B. CALCULATION OF MAXIMUM DAY EXTRA DEMAND FACTORS FOR SMALL MAINS ALLOCATION.

Factors are based on the maximum day extra demand throughput for each classification, excluding XD and Interruptible classifications.

Service Classification	Pro Forma Average Daily Throughput Volumes (Mcf)	Peak Day Capacity (Mcf)	Extra Capacity (Mcf)	Allocation Factor 3B
(1)	(2)	(3)	(4)=(3)-(2)	(5)
Volumetric Costs				
Rate R	62,313	355,246	292,933	0.5834
Rate N	38,743	219,480	180,737	0.3600
Rate DS	8,875	30,973	22,098	0.0440
Rate LFD	7,582	13,911	6,329	0.0126
Total	117,513	619,610	502,097	1.0000

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH LARGE DISTRIBUTION MAINS.

Factors are based on the weighting of the factors derived from average daily throughput volumes and from maximum day extra capacity demand for each service classification, as follows:

Service Classification	Average Daily Throughput			Maximum Day Extra Demand		Allocation Factor 4 (7)=(4)+(6)
	Interruptible	Allocation Factor	Weighted Factor* (4)=(3)x 0.4287	Allocation Factor 3A (5)	Weighted Factor (6)=(5)x 0.5713	
(1)	(2)	(3)	(4)=(3)x 0.4287	(5)	(6)=(5)x 0.5713	(7)=(4)+(6)
Volumetric Costs						
Rate R	62,313	0.3470	0.1488	0.5536	0.3162	0.4650
Rate N	38,743	0.2157	0.0924	0.3416	0.1952	0.2876
Rate DS	8,875	0.0494	0.0212	0.0418	0.0239	0.0451
Rate LFD	39,903	0.2222	0.0953	0.0630	0.0360	0.1313
Rate XD Firm		-	-	-	-	-
Interruptible	29,762	0.1657	0.0710		-	0.0710
Total	179,596	1.0000	0.4287	1.0000	0.5713	1.0000

* The weighting of the factors is based on the percentage of average daily throughput of 335,300 mcf divided by peak day demand of 782,198 mcf. $(335,300 / 782,198 = 42.87\%)$

FACTOR 4A. ALLOCATION OF COSTS ASSOCIATED WITH LOAD DISPATCHING AND M&R STATION EQUIPMENT.

Factors are based on the weighting of the factors derived from average daily throughput volumes and from maximum day extra capacity demand for each service classification, as follows:

Service Classification	Average Daily Throughput			Maximum Day Extra Demand		Allocation Factor (7)=(4)+(6)
	Throughput	Allocation Factor 2 (3)	Weighted Factor (4)=(3)x 0.4287	Allocation Factor 3 (5)	Weighted Factor (6)=(5)x 0.5713	
(1)	(2)	(3)	(4)=(3)x 0.4287	(5)	(6)=(5)x 0.5713	(7)=(4)+(6)
Volumetric						
Rate R	62,313	0.1859	0.0798	0.5011	0.2862	0.3660
Rate N	38,743	0.1155	0.0494	0.3091	0.1766	0.2260
Rate DS	8,875	0.0265	0.0114	0.0378	0.0216	0.0330
Rate LFD	39,903	0.1190	0.0510	0.0570	0.0326	0.0836
Rate XD-Firm	47,722	0.1423	0.0610	0.0950	0.0543	0.1153
Interruptible	137,744	0.4108	0.1761	-	-	0.1761
Total	335,300	1.0000	0.4287	1.0000	0.5713	1.0000

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH SMALL DISTRIBUTION MAINS.

Factors are based on the weighting of the factors derived from average daily throughput volumes and from maximum day extra capacity demand for each service classification, as follows:

Service Classification (1)	Average Daily Throughput			Maximum Day Extra Demand		Allocation Factor 5 (7)
	Volumes (Mcf) (2)	Allocation Factor (3)	Weighted Factor (4)=(3)x 0.4287	Allocation Factor 3B (5)	Weighted Factor (6)=(5)x 0.5713	
<u>Volumetric Costs</u>						
Rate R	62,313	0.4624	0.1982	0.5834	0.3333	0.5315
Rate N	38,743	0.2874	0.1232	0.3600	0.2057	0.3289
Rate DS	8,875	0.0658	0.0282	0.0440	0.0251	0.0533
Rate LFD	7,582	0.0562	0.0241	0.0126	0.0072	0.0313
Rate XD - Firm Interruptible (IS)	17,284	-	-	-	-	-
	<u>17,284</u>	<u>0.1282</u>	<u>0.0550</u>	<u>-</u>	<u>-</u>	<u>0.0550</u>
Total	<u>134,797</u>	<u>1.0000</u>	<u>0.4287</u>	<u>1.0000</u>	<u>0.5713</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 6. ALLOCATION OF COSTS ASSOCIATED WITH ACCOUNT 381, METERS.

Factors are based on the cost of meters by class included in Account 381, Meters.

<u>Service Classification</u>	<u>Number of Meters</u>	<u>Meter Ratio</u>	<u>Weighted Meters</u>	<u>REVISED Allocation Factor</u>
(1)	(2)			(3)
<u>Customer Costs</u>				
Rate R	348,120	1.00	348,120	0.5141
Rate N	38,394	7.83	300,625	0.4439
Rate DS	592	20.23	11,979	0.0177
Rate LFD	464	20.23	9,389	0.0139
Rate XD-Firm	27	20.23	546	0.0008
Interruptible	<u>322</u>	20.23	<u>6,516</u>	<u>0.0096</u>
Total	387,919		677,175	<u><u>1.0000</u></u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 6B. ALLOCATION OF COSTS ASSOCIATED WITH INDUSTRIAL MEASURING AND REGULATING EQUIPMENT, ACCOUNT 385.

Factors are based on the cost of M&R equipment by class included in Account 385, Industrial Measuring and Regulating Equipment.

<u>Service Classification</u> (1)	<u>Cost of M&R Equipment</u> (2)	<u>Allocation Factor</u> (3)
<u>Customer Costs</u>		
Rate N	\$ 1,223,583	0.2331
Rate LFD	3,702,212	0.7051
Rate XD - Firm	316,174	0.0602
Interruptible	<u>8,475</u>	<u>0.0016</u>
Total	<u>\$ 5,250,444</u>	<u>1.0000</u>

FACTOR 6C. ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.

Factors are based on the cost of services by class included in Account 380, Service Lines.

<u>Service Classification</u> (1)	<u>Cost of Services</u> (2)	<u>Allocation Factor</u> (3)
<u>Customer Costs</u>		
Rate R	\$ 436,652,618	0.8596
Rate N	61,565,658	0.1213
Rate DS	3,993,767	0.0079
Rate LFD	3,130,250	0.0062
Rate XD - Firm	372,098	0.0007
Interruptible	<u>2,172,285</u>	<u>0.0043</u>
Total	<u>\$ 507,886,676</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 7. ALLOCATION OF COSTS ASSOCIATED WITH CUSTOMER ACCOUNTING.
AND METER READING

Factors are based on the number of customers for each classification, as follows.

<u>Service Classification</u> (1)	<u>Number of Customers</u> (2)	<u>Allocation Factor 7</u> (3)
<u>Customer Costs</u>		
Rate R	348,120	0.8974
Rate N	38,394	0.0990
Rate DS	592	0.0015
Rate LFD	464	0.0012
Rate XD Firm Interruptible	27	0.0001
	<u>322</u>	<u>0.0008</u>
Total	<u><u>387,919</u></u>	<u><u>1.0000</u></u>

FACTOR 8. ALLOCATION OF COSTS ASSOCIATED WITH SALES EXPENSES.

Factors are based on the number of Rate R and Rate N customers.

<u>Service Classification</u> (1)	<u>Number of Customers</u> (2)	<u>Allocation Factor</u> (3)
<u>Customer Costs</u>		
Rate R	348,120	0.9007
Rate N	<u>38,394</u>	<u>0.0993</u>
Total	<u><u>386,514</u></u>	<u><u>1.0000</u></u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 9 (DA). ALLOCATION OF CUSTOMER ASSISTANCE EXPENSES.

These costs are directly assigned to the Residential Classification.

<u>Service Classification</u> (1)	<u>Allocation Factor</u> (3)
<u>Customer Costs</u> Rate R	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 10. ALLOCATION OF DISTRIBUTION OPERATION OTHER EXPENSES AND RENT.

Factors are based on distribution operation expenses other than those being allocated.

<u>Service Classification</u> (1)	<u>Operation Expenses</u> (2)	<u>Allocation Factor</u> (3)
<u>Volumetric Costs</u>		
Rate R	\$ 3,003,004	0.1940
Rate N	1,857,128	0.1200
Rate DS	291,469	0.0188
Rate LFD	575,142	0.0372
Rate XD Firm	279,617	0.0181
Interruptible	568,642	0.0367
<u>Customer Costs</u>		
Rate R	6,176,005	0.3990
Rate N	2,171,900	0.1403
Rate DS	98,799	0.0064
Rate LFD	371,594	0.0240
Rate XD Firm	31,368	0.0020
Interruptible	54,333	0.0035
Total	<u>\$ 15,479,001</u>	<u>1.0000</u>

FACTOR 11. ALLOCATION OF DISTRIBUTION MAINTENANCE OTHER EXPENSES.

Factors are based on distribution maintenance expenses other than those being allocated.

<u>Service Classification</u> (1)	<u>Maintenance Expenses</u> (2)	<u>Allocation Factor</u> (3)
<u>Volumetric Costs</u>		
Rate R	\$ 6,627,475	0.4027
Rate N	4,099,533	0.2491
Rate DS	650,236	0.0395
Rate LFD	1,231,632	0.0748
Rate XD Firm	391,429	0.0238
Interruptible	957,696	0.0582
<u>Customer Costs</u>		
Rate R	1,726,944	0.1049
Rate N	529,228	0.0322
Rate DS	23,877	0.0015
Rate LFD	189,378	0.0115
Rate XD Firm	16,210	0.0010
Interruptible	13,362	0.0008
Total	<u>\$ 16,457,000</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 12. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES.

Factors are based on the allocation of operation and maintenance expenses.

Service Classification <u>(1)</u>	Operation & Maintenance Expenses <u>(2)</u>	Allocation Factor <u>(3)</u>
<u>Volumetric Costs</u>		
Rate R	\$ 12,669,734	0.1953
Rate N	6,869,656	0.1059
Rate DS	1,063,933	0.0164
Rate LFD	2,046,225	0.0315
Rate XD Firm	778,530	0.0120
Interruptible	1,751,394	0.0270
<u>Customer Costs</u>		
Rate R	32,896,903	0.5070
Rate N	5,655,097	0.0872
Rate DS	214,099	0.0033
Rate LFD	753,198	0.0116
Rate XD Firm	59,933	0.0009
Interruptible	125,304	0.0019
Total	<u>\$ 64,884,006</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 13. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of total operation and maintenance direct labor expense to service classifications as shown on the following page.

Service Classification (1)	Total Labor Expense (2)	Allocation Factor (3)
<u>Volumetric Costs</u>		
Rate R	\$ 6,240,497	0.1796
Rate N	3,700,540	0.1065
Rate DS	577,129	0.0166
Rate LFD	1,119,958	0.0322
Rate XD Firm Interruptible	468,679	0.0135
	1,011,849	0.0291
<u>Customer Costs</u>		
Rate R	17,177,345	0.4946
Rate N	3,714,894	0.1069
Rate DS	138,727	0.0040
Rate LFD	477,467	0.0137
Rate XD Firm Interruptible	39,086	0.0011
	76,838	0.0022
Total	\$ 34,743,009	1.0000

FACTOR 14. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS, MISCELLANEOUS INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.

Factors are based on the allocation of the original cost less depreciation excluding the items being allocated, as follows:

Service Classification (1)	Original Cost Less Depreciation (2)	Allocation Factor (3)
<u>Volumetric Costs</u>		
Rate R	\$ 313,193,687	0.2546
Rate N	191,466,988	0.1556
Rate DS	28,775,630	0.0234
Rate LFD	54,609,442	0.0444
Rate XD Firm Interruptible	15,165,501	0.0123
	39,300,883	0.0319
<u>Customer Costs</u>		
Rate R	471,274,403	0.3833
Rate N	101,174,304	0.0822
Rate DS	5,281,401	0.0043
Rate LFD	6,449,886	0.0052
Rate XD Firm Interruptible	584,461	0.0005
	2,880,300	0.0023
Total	\$ 1,230,156,886	1.0000

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs							Customer Costs					
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)	
DIRECT LABOR EXPENSE															
750-760	Total Production & Gathering Operation Expenses	1	-	-	-	-	-	-	-	-	-	-	-	-	
761 - 769	Total Gas Raw Materials Expenses	1	-	-	-	-	-	-	-	-	-	-	-	-	
850 - 860	Total Transmission Operation Expenses	4	50,250	17,741	-	-	-	-	-	-	-	-	-	-	
861 - 867	Total Transmission Maintenance Expenses	4	-	-	-	-	-	-	-	-	-	-	-	-	
870	Operation Supervision and Engineering	10	2,093,000	406,042	251,160	39,348	77,660	37,683	78,813	835,107	293,648	13,395	50,232	4,186	
871	Distribution Load Dispatching	4a	436,000	159,576	98,538	14,368	36,450	50,271	76,780	-	-	-	-	7,320	
874	Mains And Services Expenses														
	Mains - Small	5	768,244	408,322	252,675	40,947	24,048	-	42,263	-	-	-	-	-	
	Mains - Large	17	1,172,258	522,502	320,191	50,641	147,587	46,773	81,472	-	-	-	-	-	
	Services	6C	1,940,500	-	-	-	-	-	-	-	-	-	-	-	
875	M & R Station Expenses-General	4a	233,000	85,278	52,658	7,669	18,479	26,685	41,031	1,688,054	235,363	15,330	12,031	1,356	
876	Measuring and Regulating Station Expenses-Indust	6B	225,000	-	-	-	-	-	-	-	-	-	-	-	
877	Measuring and Regulating Station Expenses-City C	4a	180,000	-	-	-	-	-	-	-	52,448	-	158,648	13,546	
878	Meter And House Regulator Expenses	6	1,447,000	81,488	37,908	5,544	14,045	19,370	29,585	-	-	-	-	-	
879	Customer Installation Expenses	8	994,000	-	-	-	-	-	-	743,903	642,323	25,612	20,113	1,159	
880	Other Expenses	10	1,698,000	329,412	203,760	31,922	63,166	30,734	62,317	511,015	441,237	17,594	13,817	795	
881	Rent	10	-	-	-	-	-	-	-	677,502	238,229	10,687	40,752	3,386	
885	Supervision - Engineering and Labor	11	681,000	286,185	164,855	26,110	49,443	15,732	38,470	69,339	21,284	992	7,602	681	
886	Structures & Improvements	18	-	-	-	-	-	-	-	-	-	-	-	529	
887	Mains - Small	5	1,601,611	851,363	526,838	85,377	80,137	-	68,100	-	-	-	-	-	
	Mains - Large	17	2,444,189	1,089,619	673,663	105,569	307,723	87,523	169,871	-	-	-	-	-	
889	M & R Equip - General	4a	36,000	13,176	8,136	1,188	3,010	4,151	6,340	-	-	-	-	-	
890	M & R Equip - Ind	6B	60,000	-	-	-	-	-	-	-	-	-	-	-	
891	M & R Equip - CG Check Station	4a	180,000	63,880	40,680	5,940	15,048	20,754	31,698	-	13,986	-	42,308	3,612	
892	Services	6C	882,000	-	-	-	-	-	-	-	-	-	-	96	
893	Meters & House Regulators	6	371,000	-	-	-	-	-	-	758,167	106,987	6,968	5,468	617	
895	Other Equipment	11	47,000	18,927	11,708	1,657	3,516	1,119	2,735	190,731	104,687	6,567	5,157	297	
894	Other Equipment	11	-	-	-	-	-	-	-	4,930	1,513	71	541	47	
901	Supervision	7	382,000	-	-	-	-	-	-	-	-	-	-	-	
902	Meter Reading Expenses	7	626,000	-	-	-	-	-	-	324,859	35,838	543	434	30	
903	Customer Records & Coll Expenses	7	4,661,000	-	-	-	-	-	-	561,772	61,674	939	751	63	
907	Supervision	7	134,000	-	-	-	-	-	-	4,382,281	481,239	7,292	5,833	456	
908	Customer Assistance Expenses	9	668,000	-	-	-	-	-	-	120,252	13,266	201	161	13	
910	Miscellaneous Customer Service & Info Exp.	7	28,000	-	-	-	-	-	-	666,000	-	-	-	-	
911	Supervision	8	-	-	-	-	-	-	-	25,127	2,772	42	34	3	
912	Demonstrating And Selling Expenses	8	546,000	-	-	-	-	-	-	-	-	-	-	-	
920	Administrative & General Salaries	12	8,808,000	1,720,202	932,767	144,451	277,452	103,696	237,816	491,782	54,216	-	-	-	
921	Office Supplies And Expenses	12	240,000	48,672	25,416	3,936	7,660	2,680	6,480	4,465,656	768,038	29,068	102,173	7,827	
925	Injuries and Damages	12	552,000	107,808	58,487	9,053	17,388	6,624	14,904	121,680	20,826	792	2,784	216	
932	Maintenance of General Plant	12	182,000	37,498	20,333	3,149	6,048	2,304	5,184	279,864	48,134	1,622	6,403	497	
	Total Direct Labor Expense		34,743,000	6,240,497	3,700,540	677,129	1,119,956	458,679	1,011,849	17,177,345	3,714,894	136,727	477,467	39,086	
														78,639	

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 15. ALLOCATION OF RETURN AND TAXES.

Factors are based on the result of allocating the original cost measure of value, as presented on the following page.

Service Classification <u>(1)</u>	Original Cost Less Depreciation <u>(2)</u>	Allocation Factor <u>(3)</u>
<u>Volumetric Costs</u>		
Rate R	\$ 235,091,382	0.2546
Rate N	143,734,393	0.1557
Rate DS	21,597,335	0.0234
Rate LFD	40,989,088	0.0444
Rate XD Firm	11,392,295	0.0123
Interruptible	29,515,088	0.0320
<u>Customer Costs</u>		
Rate R	353,691,475	0.3828
Rate N	75,958,243	0.0823
Rate DS	3,962,313	0.0043
Rate LFD	4,854,710	0.0053
Rate XD Firm	431,079	0.0005
Interruptible	2,174,741	0.0024
Total	<u>\$ 923,392,142</u>	<u>1.0000</u>

FACTOR 16. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS AND OTHER REVENUES.

Factors are based on the allocated cost of service excluding those items being allocated.

Service Classification <u>(1)</u>	Total Cost of Service <u>(2)</u>	Allocation Factor <u>(3)</u>
<u>Volumetric Costs</u>		
Rate R	\$ 59,741,711	0.2160
Rate N	35,023,573	0.1266
Rate DS	5,351,110	0.0193
Rate LFD	10,207,453	0.0369
Rate XD Firm	3,227,351	0.0117
Interruptible	7,895,190	0.0285
<u>Customer Costs</u>		
Rate R	126,117,074	0.4559
Rate N	24,791,870	0.0896
Rate DS	1,130,014	0.0041
Rate LFD	2,325,063	0.0084
Rate XD Firm	196,131	0.0007
Interruptible	635,408	0.0023
Total	<u>\$ 276,641,948</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs							Customer Costs				
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)
RATE BASE														
DISTRIBUTION PLANT														
374	Land	16	2,273,343	1,088,704	873,384	107,074	203,237	55,697	145,287	-	-	-	-	-
374	Land Rights of Way	4	-	-	-	-	-	-	-	-	-	-	-	-
375	Structures And Improvements	16	739,180	353,993	218,945	34,815	66,083	18,110	47,234	-	-	-	-	-
376	Mains - Small	5	215,322,849	114,444,094	70,819,685	11,478,708	6,739,605	-	11,942,757	-	-	-	-	-
	Mains - Large	4	328,559,083	152,779,964	94,483,587	14,818,014	43,139,805	-	23,327,693	-	-	-	-	-
	Mains - Direct Assign	DA	14,193,075	-	-	-	-	13,686,419	506,656	-	-	-	-	-
378	Measuring & Regulating Equipment - General	18	28,975,073	13,878,162	8,582,417	1,364,728	2,590,372	709,889	1,851,507	-	-	-	-	-
379	Measuring & Regulating Equipment - SCADA	18	858,319	314,311	194,402	30,813	58,875	18,080	41,939	-	-	-	-	-
379	Measuring & Regulating Equipment - City Gate	18	1,700,598	814,416	503,717	80,098	152,033	41,665	108,668	-	-	-	-	-
380	Services	6C	433,144,508	-	-	-	-	-	-	372,331,019	52,540,429	3,421,842	2,685,496	303,201
381	Meters	6	36,121,391	-	-	-	-	-	-	18,570,007	18,034,285	639,349	502,087	28,697
382	Meter Installations	6	42,041,136	-	-	-	-	-	-	21,813,348	18,862,060	744,128	584,372	33,633
383	House Regulators	6	5,737,933	-	-	-	-	-	-	2,948,418	2,548,878	101,546	79,745	4,580
384	House Regulator Installations	6	8,928,942	-	-	-	-	-	-	3,582,189	3,075,757	122,642	98,312	5,543
385	Industrial Measuring & Regulating Equipment	6B	2,578,972	-	-	-	-	-	-	-	600,892	-	1,817,023	153,134
386	Other Property on Customer Premises	6	208,382	-	-	-	-	-	-	106,101	91,813	3,653	2,869	165
386	Other Property on Customer Premises - Farm Taps	6	362,839	-	-	-	-	-	-	188,587	181,109	6,424	5,045	290
386	Other Property on Customer Premises - Gas Lights	6	1,113	-	-	-	-	-	-	572	494	20	15	1
386	Other Property on Customer Premises - CNG Refur	6	(1,038)	-	-	-	-	-	-	(533)	(480)	(18)	(14)	(1)
387	Other Equipment	10	1,330,441	258,108	159,653	25,912	49,482	24,081	48,827	538,848	188,861	8,515	31,931	2,861
387	Other Equipment - Graphic Data Base	10	44,275	8,589	5,313	832	1,847	801	1,625	17,868	8,212	283	1,083	88
	Total Distribution Plant		1,120,913,616	283,838,339	175,651,883	27,838,192	53,000,949	14,552,742	37,922,173	418,887,281	83,905,630	5,948,384	5,805,944	634,203
GENERAL PLANT														
389	Land and Land Rights	12	1,492,787	281,537	158,084	24,481	47,022	17,913	40,305	756,833	130,169	4,926	17,316	1,343
390	Structures And Improvements	12	18,370,874	3,197,183	1,733,854	268,479	515,878	196,448	442,008	8,298,932	1,427,523	54,823	189,900	14,734
391	Office Furniture And Equipment	12	1,227,472	239,725	129,989	20,131	38,985	14,730	33,142	622,328	107,038	4,051	14,239	1,105
392	Transportation Equipment	12	720,695	140,752	78,322	11,818	22,702	8,648	18,459	385,392	62,845	2,378	9,360	649
394	Tools, Shop And Garage Equipment	12	8,827,397	1,294,331	701,841	108,688	208,783	79,529	178,940	3,360,090	577,909	21,870	78,878	5,965
396	Power Operated Equipment	12	55,398	10,819	5,867	909	1,745	605	1,498	28,087	4,831	183	643	50
397	Communication Equipment	12	90,438	17,883	9,577	1,483	2,849	1,085	2,442	45,852	7,886	288	1,049	81
398	Miscellaneous Equipment	12	515,186	100,816	54,558	8,448	18,228	6,182	13,910	281,189	44,824	1,700	5,978	484
399	Other Tangible Property	12	-	-	-	-	-	-	-	-	-	-	-	-
	Total General Plant		27,100,027	5,292,638	2,869,892	444,440	853,650	326,200	731,702	13,738,713	2,383,123	89,428	314,361	24,391
	Total Plant		1,148,013,643	289,230,975	178,520,975	28,382,632	53,854,599	14,877,942	38,653,875	433,626,014	86,288,653	6,137,813	6,120,305	658,594
COMMON PLANT ALLOCATED @ 15.38%														
390.2	Structures and Improvements	12	3,171	618	336	52	100	38	88	1,608	277	10	37	6
391	Office Furniture and Equipment	12	110,404	21,574	11,886	1,812	3,480	1,326	2,883	58,005	9,632	365	1,281	99
392.1	Transportation Equipment	12	1,520	297	181	25	48	18	41	771	133	5	18	3
	Total Common Plant		115,155	22,490	12,195	1,889	3,828	1,382	3,110	58,384	10,042	360	1,336	103
INFORMATION SERVICES (IS) ALLOCATED @ 48.83%														
391	Office Furniture and Equipment	12	9,425,306	1,840,762	998,140	154,575	298,897	113,104	254,483	4,778,630	621,887	31,104	109,334	8,483
391.1	Office Furniture and Equip - New CIS Software	7	43,008,009	-	-	-	-	-	-	38,593,582	4,287,889	64,508	51,607	4,381
	Total Information Services		52,433,315	1,840,762	998,140	154,575	298,897	113,104	254,483	43,372,212	5,078,482	95,613	160,941	12,784
Leas: Reading Service Center Allocated to Other Divisions														
390.1	Structures And Improvements @ 51.74%	12	(478,228)	(93,008)	(50,433)	(7,810)	(15,001)	(5,715)	(12,858)	(241,448)	(41,527)	(1,572)	(6,524)	(428)
INTANGIBLE PLANT														
301	Organization (Allocated at 15.36%)	14	21,345	5,434	3,321	489	948	283	681	8,181	1,755	82	111	11
302	Franchises And Consents	14	28,258	7,184	4,397	681	1,255	348	901	10,831	2,323	122	147	14
304	Land and Land Rights	14	381,852	97,169	59,385	8,931	18,945	4,694	12,175	148,287	31,372	1,841	1,995	191
305	Manufactured Gas Plant Remediation	1	318,923	234,238	82,685	-	-	-	-	-	-	-	-	-
	Total Nondepreciable Plant		748,178	344,035	148,788	10,081	19,148	5,305	13,757	185,288	35,450	1,855	2,243	218
	Total Utility Plant in Service		1,200,832,960	291,345,254	178,630,665	28,841,377	64,188,271	14,992,018	38,812,367	478,961,371	101,352,100	5,234,889	6,279,301	571,268

WQ UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs						Customer Costs					
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)
OTHER RATE BASE ELEMENTS														
Gas Storage Inventory	1A	21,730,000	13,396,718	8,331,282	-	-	-	-	-	-	-	-	-	-
Cash Working Capital	12	10,687,000	2,087,171	1,131,753	175,267	336,641	128,244	288,549	5,418,309	931,906	35,267	123,969	9,616	20,305
Cash Working Capital - Purchased Gas Related	5	7,981,900	5,683,975	2,677,025	-	-	-	-	-	-	-	-	-	-
Materials & Supplies	12	4,212,000	822,504	448,051	69,077	132,678	50,544	113,734	2,135,484	367,266	13,900	48,659	3,791	8,003
Deferred Taxes	14	(307,198,000)	(78,212,102)	(47,799,698)	(7,188,365)	(13,639,502)	(3,778,511)	(9,769,552)	(117,748,227)	(25,251,511)	(1,320,943)	(1,587,419)	(153,598)	(706,551)
Customer Deposits	8	(14,517,000)	-	-	-	-	-	-	(13,075,482)	(1,441,539)	-	-	-	-
Investment Tax Credit	14	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Rate Base Elements		(277,123,000)	(58,019,634)	(35,813,587)	(6,944,042)	(13,170,183)	(3,599,723)	(9,297,279)	(125,269,898)	(25,363,857)	(1,271,778)	(1,424,891)	(148,189)	(676,243)
Total Measure of Value		\$ 923,709,060	\$ 238,325,820	\$ 143,817,078	\$ 21,897,235	\$ 40,989,069	\$ 11,392,235	\$ 29,918,088	\$ 353,691,473	\$ 75,968,243	\$ 3,962,313	\$ 4,694,710	\$ 431,079	\$ 2,174,741

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 17. ALLOCATION OF OPERATION AND MAINTENANCE EXPENSES ASSOCIATED WITH LARGE MAINS.

Factors are based on the allocation of rate base for large and directly assigned mains.

Service Classification	Original Cost Less Depreciation	Allocation Factor
(1)	(2)	(3)
<u>Volumetric Costs</u>		
Rate R	\$ 152,779,964	0.4458
Rate N	94,493,587	0.2757
Rate DS	14,818,014	0.0432
Rate LFD	43,139,805	0.1259
Rate XD Firm	13,686,419	0.0399
Interruptible	23,834,349	0.0695
Total	\$ 342,752,138	1.0000

FACTOR 18. ALLOCATION OF RATE BASE ASSOCIATED M&R STATION EQUIPMENT.

Factors are based on the composite allocation of all mains.

Service Classification	Original Cost Less Depreciation	Allocation Factor
(1)	(2)	(3)
<u>Volumetric Costs</u>		
Rate R	\$ 267,224,058	0.4789
Rate N	165,313,272	0.2962
Rate DS	26,294,722	0.0471
Rate LFD	49,879,410	0.0894
Rate XD Firm	13,686,419	0.0245
Interruptible	35,677,106	0.0639
Total	\$ 558,074,987	1.0000

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 19. ALLOCATION OF UNCOLLECTIBLE ACCOUNTS

Factors are based on history of net write-offs by class.

<u>Service Classification</u> (1)	<u>5-Yr. Average of Write-offs</u> (2)	<u>Allocation Factor</u> (3)
<u>Customer Costs</u>		
Rate R	\$ 6,527,255	0.9186
Rate N	446,108	0.0628
Rate DS	42,855	0.0060
Rate LFD	56,327	0.0079
Rate XD Firm	-	0.0000
Interruptible	33,323	0.0047
Total	<u>\$ 7,105,868</u>	<u>1.0000</u>

FACTOR 20. ALLOCATION OF PENALTY REVENUE

Factors are based on an analysis of penalty revenue, by class.

<u>Service Classification</u> (1)	<u>Penalty Revenue</u> (2)	<u>Allocation Factor</u> (3)
<u>Customer Costs</u>		
Rate R	\$ 1,756,329	0.5863
Rate N	1,029,704	0.3437
Rate DS	208,436	0.0696
Rate LFD	-	0.0000
Rate XD Firm	-	0.0000
Interruptible	1,200	0.0004
Total	<u>\$ 2,995,668</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

CALCULATION OF CUSTOMER COSTS PER BILL BY SERVICE CLASSIFICATION

	Cost of Service (1)	Rate R (2)	Rate N (3)	Rate DS (4)	Rate LFD (5)	Rate XD Firm (6)	Interruptible (7)
Fully Allocated Customer Costs							
Customer Costs	152,516,222	\$ 124,591,980	\$ 23,834,319	\$ 923,694	\$ 2,333,938	\$ 196,787	\$ 635,504
Number of bills	4,655,028	4,177,440	460,728	7,104	5,568	324	3,864
Customer Cost per bill		\$ 29.82	\$ 51.73	\$ 130.02	\$ 419.17	\$ 607.37	\$ 164.47
Direct Customer Costs							
O & M Expenses:							
874 Mains And Services Expenses							
Mains	-	-	-	-	-	-	-
Services	5,246,999	4,510,321	636,461	41,451	32,531	3,673	22,562
876 M & R Station Expenses - Industrial	417,000	-	97,203	-	294,027	25,103	667
878 Meter and House Regulator Expenses	1,958,999	1,007,122	869,600	34,674	27,230	1,567	18,806
879 Customer Installations Expenses	1,281,001	658,562	568,636	22,674	17,806	1,025	12,298
890 M & R Equip - Industrial	241,999	-	56,410	-	170,634	14,568	387
892 Services	1,640,000	1,409,744	198,932	12,956	10,188	1,148	7,052
893 Meters & House Regulators	617,000	317,200	273,886	10,921	8,576	494	5,923
901 Supervision	425,001	381,395	42,075	638	510	43	340
902 Meter Reading Expenses	1,001,000	898,297	99,099	1,502	1,201	100	801
903 Customer Records & Coll Expenses	13,681,000	12,277,329	1,354,419	20,522	16,417	1,368	10,945
904 Uncollectible Accounts	3,694,530	3,372,781	217,384	33,666	44,327	-	26,372
905 Miscellaneous Cust Accts Expenses	358,000	321,269	35,442	537	430	36	286
907 Supervision	163,999	147,173	16,236	246	197	16	131
908 Customer Assistance Expenses	1,308,000	1,308,000	-	-	-	-	-
910 Miscellaneous Customer Service Exp.	116,000	104,098	11,484	174	139	12	93
911 Supervision	-	-	-	-	-	-	-
912 Demonstrating and Selling Expenses	3,635,001	3,274,045	360,956	-	-	-	-
913 Advertising Expenses	111,000	99,978	11,022	-	-	-	-
916 Miscellaneous	104,000	93,673	10,327	-	-	-	-
926 Employee Pensions and Benefits	7,016,819 *	5,575,131	1,204,977	45,088	154,426	12,399	24,798
408 Payroll Taxes	2,114,632 *	1,680,156	363,139	13,588	46,539	3,737	7,473
Subtotal O & M Expenses	45,131,980	37,436,274	6,427,688	238,637	825,158	65,289	138,934

UGI UTILITIES, INC. - GAS DIVISION

CALCULATION OF CUSTOMER COSTS PER BILL BY SERVICE CLASSIFICATION

	Cost of Service (1)	Rate R (2)	Rate N (3)	Rate DS (4)	Rate LFD (5)	Rate XD Firm (6)	Interruptible (7)
Depreciation Expense							
380 Services	18,440,531	15,851,481	2,236,837	145,680	114,331	12,908	79,294
381 Meters	1,553,800	798,809	689,732	27,502	21,598	1,243	14,916
382 Meter Installations	1,578,780	811,651	700,821	27,944	21,945	1,263	15,156
383 House Regulators	404,312	207,857	179,475	7,156	5,620	323	3,881
384 House Regulator Installations	268,995	138,291	119,407	4,761	3,739	215	2,582
385 Industrial M & R Equipment	128,680	-	29,995	-	90,732	7,747	206
390 Structures and Improvements	688,325 *	570,324	98,091	3,712	13,049	1,012	2,137
391 Office Furniture And Equipment	3,895,303 *	3,424,868	430,370	9,847	22,932	1,799	5,487
Subtotal Depreciation	26,958,726	21,803,281	4,484,728	226,602	293,946	26,510	123,659
Rate Base							
380 Services	433,144,508	372,331,019	52,540,429	3,421,842	2,685,496	303,201	1,862,521
381 Meters	36,121,390	18,570,007	16,034,285	639,349	502,087	28,897	346,765
382 Meter Installations	42,041,136	21,613,348	18,662,060	744,128	584,372	33,633	403,595
383 House Regulators	5,737,054	2,949,419	2,546,678	101,546	79,745	4,590	55,076
384 House Regulator Installations	6,928,941	3,562,169	3,075,757	122,642	96,312	5,543	66,518
385 Industrial M & R Equipment	2,576,972	-	600,692	-	1,817,023	155,134	4,123
390 Structures And Improvements	10,017,216 *	8,299,932	1,427,523	54,023	189,900	14,734	31,104
391 Office Furniture and Equipment	49,592,038 *	44,050,555	5,196,150	100,029	176,461	13,988	54,855
Deferred Taxes	(146,778,249) *	(117,748,227)	(25,251,511)	(1,320,943)	(1,597,419)	(153,598)	(706,551)
Customer Deposits	(14,517,000)	(13,075,462)	(1,441,538)	-	-	-	-
Subtotal Rate Base	424,864,006	340,552,760	73,390,525	3,862,616	4,533,977	406,122	2,118,006
Taxes and Return							
@ 12.3%	52,123,867	41,780,256	9,003,818	473,880	556,245	49,825	259,845
Total Direct Customer Costs	\$ 124,214,573	\$ 101,019,811	\$ 19,916,233	\$ 939,119	\$ 1,675,349	\$ 141,624	\$ 522,438
Less: USP and EEC Recovery	9,015,112	8,125,794	393,673	90,181	405,463	-	-
Total	\$ 115,199,461	\$ 92,894,016	\$ 19,522,560	\$ 848,938	\$ 1,269,886	\$ 141,624	\$ 522,438
Number of bills	4,655,028	4,177,440	460,728	7,104	5,568	324	3,864
Direct Costs per bill		\$ 22.24	\$ 42.37	\$ 119.50	\$ 228.07	\$ 437.11	\$ 135.21

* Customer cost portion of account.

REVISED

COST OF SERVICE ALLOCATION STUDY

AS OF SEPTEMBER 30, 2017

(Excludes Allocation of Mains to Interruptible Service)

UGI UTILITIES, INC. - GAS DIVISION

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
BY SERVICE CLASSIFICATION FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2017
WITHOUT GAS COSTS

Service Classification (1)	Pro Forma Cost of Service		Pro Forma Margin Revenues,				Revenue Increase	
	Amount (2)	Percent (3)	Under Present Rates		Under Proposed Rates		Amount (8)	Percent Increase (9)
			Amount (4)	Percent (5)	Amount (6)	Percent (7)		
Rate R	\$ 187,851,560	68.3%	\$ 108,668,733 *	50.2%	\$ 152,001,162	55.4%	\$ 43,332,428	39.8%
Rate N	61,038,965	22.2%	55,100,277	25.5%	67,596,056	24.6%	12,495,779	22.7%
Rate DS	6,754,570	2.5%	10,602,234	4.9%	11,583,714	4.2%	981,480	9.3%
Rate LFD	13,936,460	5.1%	25,008,284	11.6%	26,762,521	9.7%	1,754,237	7.0%
Rate XD Firm	3,450,970	1.3%	11,785,496	5.5%	11,785,496	4.3%	-	0.0%
Interruptible	1,597,443	0.6%	4,900,000	2.3%	4,900,000	1.8%	-	0.0%
Total	\$ 274,629,968	100.0%	\$ 216,065,024	100.0%	\$ 274,628,950	100.0%	\$ 58,563,925	27.1%
Other Operating Revenues	4,480,000		4,480,000		4,480,000		0	
Total	\$279,109,968		\$220,545,024		\$279,108,950		\$58,563,925	26.6%

* Includes GL.

UGI UTILITIES, INC. - GAS DIVISION

DEVELOPMENT OF RATE OF RETURN BY SERVICE CLASSIFICATION
UNDER PRESENT RATES

Item (1)	Cost of Service (2)	Rate R (3)	Rate N (4)	Rate DS (5)	Rate LFD (6)	Rate XD-Firm (7)	Interruptible (8)
1. Revenues From Tariff Sales and Transportation	\$ 216,065,024	\$ 108,668,733	\$ 55,100,277	\$ 10,602,234	\$ 25,008,284	\$ 11,785,496	\$ 4,900,000
2. Other Revenues	4,479,860	2,870,897	1,300,680	235,289	50,341	12,485	10,168
3. Total Operating Revenues	220,544,884	111,539,630	56,400,957	10,837,523	25,058,625	11,797,981	4,910,168
4. Less: Operating Expenses	164,812,758	115,819,935	34,399,854	3,630,543	7,682,147	2,021,444	1,258,835
5. Return and Income Taxes	55,732,126	(4,280,305)	22,001,103	7,206,980	17,376,478	9,776,537	3,651,333
6. Less: Interest Expense	20,044,000	13,064,679	4,946,859	595,307	1,118,455	256,563	62,136
7. Taxable Income	35,688,126	(17,344,984)	17,054,244	6,611,673	16,258,023	9,519,974	3,589,197
8. Less: Income Taxes	13,962,000	(6,788,324)	6,672,440	2,587,159	6,361,087	3,725,062	1,404,577
9. Net Return (Ln 5 - Ln 8)	41,770,126	2,508,019	15,328,663	4,619,821	11,015,391	6,051,475	2,246,756
10. Original Cost Measure of Value (Factor 15.)	923,775,521	602,044,236	228,019,196	27,454,862	51,537,010	11,848,878	2,871,339
11. Rate of Return, Percent	4.52%	0.42%	6.72%	16.83%	21.37%	51.07%	78.25%
12. Relative Rate of Return	1.00	0.09	1.49	3.72	4.73	11.29	17.31

UGI UTILITIES, INC. - GAS DIVISION

DEVELOPMENT OF RATE OF RETURN BY SERVICE CLASSIFICATION
UNDER PROPOSED RATES

Item (1)	Cost of Service (2)	Rate R (3)	Rate N (4)	Rate DS (5)	Rate LFD (6)	Rate XD-Firm (7)	Interruptible (8)
1. Revenues From Tariff Sales and Transportation	274,628,950	\$ 152,001,162	\$ 67,596,056	\$ 11,583,714	\$ 26,762,521	\$ 11,785,496	\$ 4,900,000
2. Other Revenues	4,480,002	2,866,213	1,304,422	236,202	51,205	12,451	9,509
3. Total Operating Revenues	279,108,952	154,867,375	68,900,478	11,819,916	26,813,726	11,797,947	4,909,509
4. Less: Operating Expenses	165,785,967	116,853,188	34,375,023	3,625,049	7,664,187	2,012,873	1,255,647
5. Return and Income Taxes	113,322,985	38,014,187	34,525,455	8,194,867	19,149,539	9,785,074	3,653,862
6. Less: Interest Expense	20,044,000	13,066,684	4,944,855	595,307	1,118,455	258,563	62,136
7. Taxable Income	93,278,985	24,947,503	29,580,600	7,599,560	18,031,084	9,528,511	3,591,726
8. Less: Income Taxes	37,857,000	10,122,962	12,004,455	3,085,346	7,317,758	3,868,985	1,457,495
9. Net Return (Ln 5 - Ln 8)	75,465,985	27,891,225	22,521,000	5,109,521	11,831,781	5,916,089	2,196,367
10. Original Cost Measure of Value (Factor 15.)	923,709,069	602,146,287	227,911,965	27,439,544	51,506,373	11,838,666	2,866,234
11. Rate of Return, Percent	8.17%	4.63%	9.88%	18.62%	22.97%	49.97%	76.63%
12. Relative Rate of Return	1.00	0.57	1.21	2.28	2.81	6.12	9.38

UGI UTILITIES, INC. - GAS DIVISION

SUMMARY OF COST OF SERVICE BY SERVICE CLASSIFICATION

<u>Cost Function</u> (1)	<u>Cost of Service</u> <u>(Schedule E)</u> (2)	<u>Rate R</u> (3)	<u>Rate N</u> (4)	<u>Rate DS</u> (5)	<u>Rate LFD</u> (6)	<u>Rate XD Firm</u> (7)	<u>Interruptible</u> (8)
<u>Volumetric Costs</u>							
Rate R	\$ 63,226,550	\$ 63,226,550					
Rate N	37,183,352		\$ 37,183,352				
Rate DS	5,830,876			\$ 5,830,876			
Rate LFD	11,643,196				\$ 11,643,196		
Rate XD Firm	3,244,864					\$ 3,244,864	
Rate IS/IL	961,860						\$ 961,860
Total Volumetric Costs	122,090,698	63,226,550	37,183,352	5,830,876	11,643,196	3,244,864	961,860
<u>Customer Costs</u>							
Rate R	\$ 124,625,010	\$ 124,625,010					
Rate N	23,855,613		\$ 23,855,613				
Rate DS	923,694			\$ 923,694			
Rate LFD	2,293,264				\$ 2,293,264		
Rate XD Firm	206,106					\$ 206,106	
Rate IS/IL	635,583						\$ 635,583
Total Customer Costs	152,539,270	124,625,010	23,855,613	923,694	2,293,264	206,106	635,583
Total Excluding Gas Costs	\$ 274,629,968	\$ 187,851,560	\$ 61,038,965	\$ 6,754,570	\$ 13,936,460	\$ 3,450,970	\$ 1,597,443
Gas Costs	0	0	0	0	0	0	0
Total	\$ 274,629,968	\$ 187,851,560	\$ 61,038,965	\$ 6,754,570	\$ 13,936,460	\$ 3,450,970	\$ 1,597,443

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs							Customer Costs				
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)
OPERATION AND MAINTENANCE EXPENSES														
NATURAL GAS PRODUCTION EXPENSES														
<i>Manufactured Gas Production Expenses</i>														
710		0	-	-	-	-	-	-	-	-	-	-	-	-
717		0	-	-	-	-	-	-	-	-	-	-	-	-
725-736		0	-	-	-	-	-	-	-	-	-	-	-	-
740-742		68,000	50,259	17,741	-	-	-	-	-	-	-	-	-	-
		68,000	50,259	17,741	-	-	-	-	-	-	-	-	-	-
<i>Production and Gathering</i>														
750 - 760		-	-	-	-	-	-	-	-	-	-	-	-	-
761 - 769		-	-	-	-	-	-	-	-	-	-	-	-	-
770 - 783		-	-	-	-	-	-	-	-	-	-	-	-	-
784 - 791		-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Other Gas Supply Expenses</i>														
800 - 803		-	-	-	-	-	-	-	-	-	-	-	-	-
804		-	-	-	-	-	-	-	-	-	-	-	-	-
813		-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-
		68,000	50,259	17,741	-	-	-	-	-	-	-	-	-	-
OTHER STORAGE EXPENSE														
840		-	-	-	-	-	-	-	-	-	-	-	-	-
841		-	-	-	-	-	-	-	-	-	-	-	-	-
842 - 842.3		-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-
TRANSMISSION EXPENSE														
850 - 860		-	-	-	-	-	-	-	-	-	-	-	-	-
861 - 867		-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-
DISTRIBUTION EXPENSES														
<i>Operation</i>														
870		2,402,000	489,287	302,652	48,520	99,203	43,478	38,991	958,638	337,961	15,373	56,447	5,044	8,407
871		534,000	202,784	125,204	18,282	48,314	63,878	97,659	-	-	-	-	-	-
872		-	-	-	-	-	-	-	-	-	-	-	-	-
873		1,000	189	116	27	119	142	411	-	-	-	-	-	-
874		-	-	-	-	-	-	-	-	-	-	-	-	-
		2,077,287	1,184,527	720,619	119,444	72,497	-	-	-	-	-	-	-	-
		3,169,713	1,802,444	929,677	149,827	458,439	126,472	4,755	-	-	-	-	-	-
		5,247,000	-	-	-	-	-	-	4,510,321	638,461	41,451	32,531	3,673	22,562
875		425,000	155,550	96,050	14,025	35,530	49,003	74,843	-	-	-	-	-	-
876		417,000	-	-	-	-	-	-	-	103,418	-	286,145	26,730	709
877		348,000	127,358	78,648	11,484	28,093	40,124	61,283	-	-	-	-	-	-
878		1,959,000	-	-	-	-	-	-	1,007,122	680,600	34,674	27,230	1,567	16,608
879		1,281,000	-	-	-	-	-	-	658,562	568,636	22,674	17,600	1,025	12,298
880		2,527,000	514,750	318,402	51,045	104,365	45,739	38,918	1,008,526	335,548	18,173	59,385	6,307	8,845
881		69,000	14,053	8,694	1,394	2,850	1,249	1,053	27,538	6,708	442	1,022	145	242
		20,477,000	4,170,931	2,540,282	414,148	848,410	370,081	315,821	6,170,707	2,681,331	130,787	481,168	43,491	71,889

UQI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs						Customer Costs					
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)
Maintenance														
685 Supervision - Engineering and Labor	11	788,000	334,757	207,111	33,719	66,731	18,707	5,858	82,451	25,466	1,178	8,603	786	629
686 Structures & Improvements	18	3,000	1,523	942	154	308	74	3	-	-	-	-	-	-
687 Mains - Small	5	5,287,245	2,964,030	1,834,674	304,017	184,525	-	-	-	-	-	-	-	-
Mains - Large	17	8,067,756	3,824,118	2,366,273	361,605	1,181,787	321,603	12,102	-	-	-	-	-	-
688 Maintenance of Compressor Station Equipment	4	-	-	-	-	-	-	-	-	-	-	-	-	-
M & R Equip - General	4a	187,000	81,122	37,742	5,511	13,961	19,255	29,409	-	-	-	-	-	-
890 M & R Equip - Industrial	8B	242,000	-	-	-	-	-	-	-	60,916	-	168,060	15,512	411
891 M & R Equip - Clay Gate	4a	438,000	159,576	98,538	14,388	36,450	50,271	76,780	-	-	-	-	-	-
892 Services	6C	1,640,000	-	-	-	-	-	-	1,409,744	198,832	12,950	10,168	1,148	7,052
893 Meters & House Regulators	6	617,000	-	-	-	-	-	-	317,200	273,888	10,921	8,578	494	5,923
894 Other Expenses	11	102,000	43,442	26,877	4,378	8,660	2,428	734	10,700	3,305	153	1,142	102	82
895 Construction and Maintenance	11	(178,000)	(74,858)	(48,378)	(7,850)	(14,942)	(4,189)	(1,207)	(18,462)	(6,702)	(264)	(1,971)	(176)	(141)
Total Maintenance		17,172,001	7,313,608	4,625,778	736,220	1,457,448	406,449	123,420	1,801,633	563,903	24,945	182,778	17,868	13,956
Total Distribution Expenses		37,849,691	11,484,539	7,108,941	1,199,388	2,303,898	778,830	438,241	9,972,340	3,437,234	183,732	673,944	81,357	85,825
CUSTOMER ACCOUNTING EXPENSES														
Operation														
901 Supervision	7	425,000	-	-	-	-	-	-	381,395	42,675	638	510	43	340
902 Meter Reading Expenses	7	1,001,000	-	-	-	-	-	-	698,297	89,699	1,502	1,291	100	861
903 Customer Records & Coll Expenses	7	13,681,000	-	-	-	-	-	-	12,277,329	1,354,419	20,522	16,417	1,368	10,945
904 Uncollectible Accounts	19	5,811,000	1,781,484	134,987	-	-	-	-	3,372,781	217,384	33,668	44,327	-	28,372
905 Miscellaneous Cust Accts Expenses	7	359,000	-	-	-	-	-	-	321,289	35,442	537	430	38	288
Total Customer Accounting Expenses		21,078,000	1,781,484	134,987	-	-	-	-	17,381,071	1,748,419	98,885	82,885	1,547	38,744
CUSTOMER SERVICE AND INFORMATION EXPENSES														
Operation														
907 Supervision	7	184,000	-	-	-	-	-	-	147,173	18,238	246	197	18	131
908 Customer Assistance Expenses	9	1,308,000	-	-	-	-	-	-	1,308,000	-	-	-	-	-
909 Informational and Instructional Advertising	7	721,000	-	-	-	-	-	-	647,025	71,379	1,082	865	72	577
910 Miscellaneous Customer Service & Informational E	7	118,000	-	-	-	-	-	-	104,098	11,484	174	139	12	83
Total Customer Service & Info Expenses		2,309,000	-	-	-	-	-	-	2,206,296	89,099	1,502	1,201	100	801
SALES EXPENSES														
Operation														
911 Supervision	8	-	-	-	-	-	-	-	-	-	-	-	-	-
912 Demonstrating and Selling Expenses	8	3,635,000	-	-	-	-	-	-	3,274,048	380,656	-	-	-	-
913 Advertising Expenses	8	111,000	-	-	-	-	-	-	89,878	11,022	-	-	-	-
916 Miscellaneous	8	104,000	-	-	-	-	-	-	83,673	10,327	-	-	-	-
Total Sales Expenses		3,850,000	-	-	-	-	-	-	3,467,698	392,305	-	-	-	-
ADMINISTRATIVE AND GENERAL EXPENSES														
Operation														
920 Administrative & General Salaries	12	9,958,000	2,038,411	1,111,313	178,257	353,509	119,490	67,714	5,048,706	669,333	32,881	113,821	9,858	18,820
921 Office Supplies and Expenses	12	9,838,000	1,971,176	1,075,742	170,810	342,185	115,668	65,545	4,888,973	841,485	31,809	108,885	9,439	18,314
923 Outside Services Employed - Other	12	9,243,000	1,890,194	1,031,519	163,661	328,127	110,618	62,832	4,888,201	806,814	30,502	105,370	8,243	17,562
924 Property Damage Insurance	12	195,000	39,878	21,782	3,432	6,923	2,340	1,328	98,885	17,024	844	2,223	195	371
925 Injuries and Damages	12	7,041,000	1,439,885	785,778	124,628	249,956	84,482	47,879	3,569,767	614,679	23,235	80,267	7,041	13,378
926 Employee Pensions and Benefits	13	11,272,000	2,127,026	1,263,591	201,769	406,919	152,172	103,702	5,574,004	1,207,231	45,068	152,172	13,528	24,788
928 Regulatory Commission Expenses	16	628,000	142,744	83,964	13,188	26,313	7,348	2,188	280,242	56,532	2,875	5,312	440	1,444
930 Miscellaneous General Expenses	12	678,000	138,651	76,685	12,001	24,069	8,136	4,810	343,748	59,189	2,237	7,729	678	1,288
930 Miscellaneous Company Charges	12	1,517,000	310,227	169,287	26,851	53,854	18,204	10,318	789,119	132,434	5,005	17,294	1,517	2,882
931 Other	12	277,000	56,647	30,813	4,803	9,834	3,324	1,894	140,430	24,182	814	3,358	277	520
Total Operation		50,448,000	10,152,839	5,649,512	897,258	1,801,689	622,098	308,026	25,404,082	4,626,803	174,871	596,631	52,514	99,483

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs						Customer Costs					
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)
Maintenance														
932 Maintenance of General Plant	12	1,435,000	293,459	160,148	25,400	50,943	17,220	9,758	727,545	125,276	4,736	10,359	1,435	2,727
935 Maintenance of General Plant	12	12,000	2,454	1,339	212	426	144	82	6,084	1,048	40	137	12	23
Total Maintenance		1,447,000	295,912	161,485	25,612	51,369	17,364	9,840	733,629	126,324	4,776	10,496	1,447	2,750
Total Administrative & General Expenses		51,895,000	10,448,781	8,910,997	922,870	1,853,088	638,460	377,888	28,137,711	4,755,127	179,847	813,327	83,961	162,333
Total Operation and Maintenance Expenses		116,647,001	23,765,833	13,089,768	2,973,238	4,156,916	1,417,990	817,107	59,035,114	10,422,184	393,748	1,351,397	116,968	227,803
DEPRECIATION AND AMORTIZATION EXPENSE														
DISTRIBUTION PLANT														
305 Manufactured Gas Plant Site Remediation	1	207,811	153,593	54,218	-	-	-	-	-	-	-	-	-	-
375 Structures And Improvements	18	27,812	14,013	6,670	1,414	2,814	676	25	-	-	-	-	-	-
376 Mains - Small	5	5,007,323	2,807,103	1,737,341	287,821	174,758	-	-	-	-	-	-	-	-
Mains - Large	4	7,640,626	3,778,290	2,338,032	376,683	1,147,822	-	-	-	-	-	-	-	-
Mains - Direct Assign	DA	310,359	-	-	-	-	301,344	9,015	-	-	-	-	-	-
378 Measuring & Regulating Equipment - General	18	1,128,978	572,956	354,499	57,884	115,043	27,660	1,018	-	-	-	-	-	-
378 Measuring & Regulating Equipment - SCADA	18	107,140	54,374	33,642	5,486	10,918	2,625	96	-	-	-	-	-	-
379 Measuring & Regulating Equipment - City Gate	18	88,508	44,915	27,792	4,532	9,019	2,168	80	-	-	-	-	-	-
380 Services	6C	19,440,532	-	-	-	-	-	-	15,851,481	2,236,637	145,680	114,331	12,906	78,294
381 Meters	8	1,553,801	-	-	-	-	-	-	788,809	689,732	27,502	21,588	1,243	14,916
381.2 Electronic Meters	8	445,841	-	-	-	-	-	-	229,207	197,809	7,891	6,187	357	4,280
382 Meter Installations	6	1,578,782	-	-	-	-	-	-	611,651	700,821	27,944	21,945	1,263	15,158
383 House Regulators	6	404,313	-	-	-	-	-	-	207,857	178,475	7,158	5,620	323	3,881
384 House Regulator Installations	6	268,996	-	-	-	-	-	-	138,281	119,407	4,781	3,738	215	2,582
385 Industrial Measuring & Regulating Equipment	8B	128,890	-	-	-	-	-	-	-	31,813	-	68,300	8,248	219
386 Other Property on Customer Premises	6	23,414	-	-	-	-	-	-	12,037	10,393	414	325	18	225
387 Other Equipment	10	105,852	21,562	13,337	2,138	4,372	1,916	1,630	42,246	14,893	677	2,488	222	370
387.1 Other Equipment	10	4,539	925	572	82	187	82	70	1,813	639	29	107	10	16
Total Distribution Plant		37,473,107	7,447,736	4,588,393	738,078	1,484,731	338,471	11,932	18,893,392	4,182,019	222,034	264,660	24,609	128,939
GENERAL PLANT														
390 Structures And Improvements	12	1,124,809	230,042	129,539	18,911	39,934	13,499	7,649	570,324	98,204	3,712	12,824	1,125	2,137
391 Office Furniture And Equipment	12	189,370	22,368	12,206	1,938	3,883	744	1,312	55,451	9,540	301	1,247	109	208
392 Transportation Equipment	12	88,541	16,471	6,988	1,428	2,859	960	548	40,634	7,031	288	918	81	153
394 Tools, Shop And Garage Equipment	12	501,958	102,650	56,019	8,885	17,820	8,823	3,413	254,493	43,821	1,690	5,722	502	954
396 Power Operated Equipment	12	8,536	1,748	853	151	303	102	58	4,328	745	28	97	9	18
397 Communication Equipment	12	40,154	8,210	4,481	711	1,425	482	273	20,358	3,505	133	458	40	78
398 Miscellaneous Equipment	12	85,585	17,501	9,551	1,515	3,038	1,027	582	43,392	7,472	282	976	86	163
399 Other Tangible Property	12	-	-	-	-	-	-	-	-	-	-	-	-	-
Total General Plant		1,981,643	398,688	217,737	34,635	68,282	23,411	13,267	948,180	170,328	6,439	22,342	1,952	3,707
COMMON PLANT ALLOCATED @ 18.38%														
390.2 Structures and Improvements	12	2,114	432	236	37	75	25	14	1,072	185	7	24	2	4
391 Office Furniture and Equipment	12	14,784	3,023	1,650	262	525	177	101	7,485	1,291	48	169	15	28
392.1 Transportation Equipment	12	533	109	53	9	19	8	4	370	47	2	6	1	1
Total Common Plant		17,431	3,564	1,945	388	619	208	119	8,837	1,823	68	199	18	33
INFORMATION SERVICES (IS) ALLOCATED @ 48.83%														
391 Office Furniture and Equipment	12	1,556,244	318,232	173,677	27,546	55,247	18,875	10,582	789,018	135,860	5,138	17,741	1,558	2,957
391.1 Office Furniture and Equip. - New CIS Software	7	2,887,087	-	-	-	-	-	-	2,572,806	283,840	4,301	3,440	287	2,284
Total Information Services		4,443,331	318,232	173,677	27,546	55,247	18,875	10,582	3,361,822	419,700	9,437	21,181	1,843	5,241
Less:														
Amount Charged to Clearing Accounts	12	(837,000)	(130,267)	(71,088)	(11,275)	(22,814)	(7,644)	(4,332)	(322,888)	(55,810)	(2,162)	(7,282)	(837)	(1,210)
390.1 Struct. & Imps- Reading Service Center @ 51.74%	12	(38,844)	(7,864)	(4,348)	(689)	(1,383)	(487)	(265)	(19,745)	(3,400)	(129)	(444)	(139)	(74)
Total Depreciation & Amortization Expense		43,188,948	8,830,307	4,885,227	788,495	1,585,862	370,854	31,363	22,110,627	4,714,658	233,756	300,566	27,845	128,848

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs						Customer Costs					
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)
TAXES OTHER THAN INCOME TAXES														
408.10 Capital Stock	15	-	-	-	-	-	-	-	-	-	-	-	-	-
408.10 County and Municipal Taxes	16	177,000	40,231	23,865	3,717	7,418	2,071	820	80,877	15,877	728	1,489	124	407
408.10 Payroll Related Tax	13	3,397,000	841,014	380,804	60,808	122,632	45,860	31,252	1,678,817	363,818	13,588	45,860	4,076	7,473
408.10 Public Utility Assessment	18	1,863,000	378,000	222,343	34,923	69,860	19,457	5,821	757,995	149,171	8,818	13,803	1,184	3,825
408.10 Public Utility Realty Tax	15	513,000	137,843	84,389	13,030	25,958	6,310	359	106,530	42,220	2,206	2,668	257	1,231
408.10 Miscellaneous Taxes	16	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Taxes Other Than Income		5,750,000	1,197,088	711,201	112,478	225,888	73,688	38,082	2,715,019	571,087	21,338	63,800	5,621	12,938
Total Operating Expenses		185,785,849	32,992,428	18,867,194	2,872,298	8,948,484	1,862,342	888,462	83,888,780	18,707,829	852,840	1,718,723	188,831	388,185
INCOME TAXES	15	37,857,000	10,172,177	6,227,477	981,568	1,915,504	465,841	28,500	14,503,017	3,115,631	182,785	196,850	18,929	90,657
OPERATING INCOME AVAILABLE FOR RETURN	15	75,487,000	20,277,883	12,414,322	1,916,862	3,816,630	928,244	52,827	28,911,408	6,210,634	324,508	392,428	37,734	181,121
TOTAL COST OF SERVICE		278,109,849	63,442,688	37,308,893	5,850,639	11,682,658	3,258,227	988,789	127,278,185	25,034,394	1,140,133	2,305,007	207,194	641,183
Less: Other Revenues														
6C Reconnection Charges	6C	517,000	-	-	-	-	-	-	444,413	82,712	4,084	3,205	382	2,223
12 Rent From Gas Property	12	185,000	33,743	18,414	2,921	5,858	1,980	1,122	83,635	14,405	545	1,881	185	314
20 Forfeited Discounts/Penalties	20	2,998,000	-	-	-	-	-	-	1,758,635	1,029,725	208,822	-	-	1,198
16 Other Miscellaneous Revenues	16	802,000	182,295	107,227	18,842	33,884	9,383	2,807	385,652	71,839	3,288	8,657	581	1,843
Subtotal		4,480,000	218,038	125,641	19,783	39,482	11,363	3,929	2,650,175	1,176,781	218,438	11,743	1,088	5,580
TOTAL COST OF SERVICE RELATED TO TARIFF SALES AND TRANSPORTATION		\$ 274,629,849	\$ 63,228,550	\$ 37,183,252	\$ 5,830,876	\$ 11,643,196	\$ 3,244,864	\$ 981,860	\$ 124,628,010	\$ 23,853,613	\$ 923,694	\$ 2,293,264	\$ 206,106	\$ 635,593

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 1. ALLOCATION OF COSTS WHICH VARY DIRECTLY WITH PGC SALES.

Factors are based on the pro forma average daily PGC sales volumes for each service classification.

Service Classification	Pro Forma Average Daily PGC Volumes (Mcf)	PGC and Choice Volumes (Mcf)	Allocation Factor 1	Allocation Factor 1A
(1)	(2)		(3)	
Volumetric Costs				
Rate R	52,240	62,313	0.7391	0.6166
Rate N	18,444	38,743	0.2609	0.3834
Rate DS	-		-	-
Rate LFD	-		-	-
Rate XD	-		-	-
Interruptible	-		-	-
Total	<u>70,684</u>	<u>101,056</u>	<u>1.0000</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTORS 2 . ALLOCATION OF COMPRESSOR STATION FUEL.

Factors are based on the pro forma average daily throughput volumes for each service classification.

<u>Service Classification</u> (1)	<u>Pro Forma Average Daily Throughput Volumes (Mcf)</u> (2)	<u>Allocation Factor 2</u> (3)
<u>Volumetric Costs</u>		
Rate R	62,313	0.1859
Rate N	38,743	0.1155
Rate DS	8,875	0.0265
Rate LFD	39,903	0.1190
Rate XD Firm	47,722	0.1423
Interruptible	<u>137,744</u>	<u>0.4108</u>
Total	<u><u>335,300</u></u>	<u><u>1.0000</u></u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 3. CALCULATION OF MAXIMUM DAY EXTRA DEMAND FACTORS.

Factors are based on the maximum day extra demand throughput for each classification.

Service Classification	Pro Forma Average Daily Throughput Volumes (Mcf)	Peak Day Capacity (Mcf)	Extra Capacity (Mcf)	Allocation Factor 3	Allocation Factor 3A
(1)	(2)	(3)	(4)=(3)-(2)	(5)	(5)
<u>Volumetric Costs</u>					
Rate R	62,313	355,246	292,933	0.5011	0.5536
Rate N	38,743	219,480	180,737	0.3091	0.3416
Rate DS	8,875	30,973	22,098	0.0378	0.0418
Rate LFD	39,903	73,215	33,312	0.0570	0.0630
Subtotal	149,834	678,914	529,080	0.9050	1.0000
Rate XD Firm	47,722	103,283	55,561	0.0950	-
Total	197,556	782,197	584,641	1.0000	1.0000

FACTOR 3B. CALCULATION OF MAXIMUM DAY EXTRA DEMAND FACTORS FOR SMALL MAINS ALLOCATION.

Factors are based on the maximum day extra demand throughput for each classification, excluding XD and interruptible classifications.

Service Classification	Pro Forma Average Daily Throughput Volumes (Mcf)	Peak Day Capacity (Mcf)	Extra Capacity (Mcf)	Allocation Factor 3B
(1)	(2)	(3)	(4)=(3)-(2)	(5)
<u>Volumetric Costs</u>				
Rate R	62,313	355,246	292,933	0.5834
Rate N	38,743	219,480	180,737	0.3600
Rate DS	8,875	30,973	22,098	0.0440
Rate LFD	7,582	13,911	6,329	0.0126
Total	117,513	619,610	502,097	1.0000

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH LARGE DISTRIBUTION MAINS.

Factors are based on the weighting of the factors derived from average daily throughput volumes and from maximum day extra capacity demand for each service classification, as follows:

Service Classification	Average Daily Throughput			Maximum Day Extra Demand		Allocation Factor 4 (7)=(4)+(6)
	Interruptible	Allocation Factor	Weighted Factor*	Allocation Factor 3A	Weighted Factor	
(1)	(2)	(3)	(4)=(3)x 0.4287	(5)	(6)=(5)x 0.5713	
<u>Volumetric Costs</u>						
Rate R	62,313	0.4158	0.1783	0.5536	0.3162	0.4945
Rate N	38,743	0.2586	0.1108	0.3416	0.1952	0.3060
Rate DS	8,875	0.0592	0.0254	0.0418	0.0239	0.0493
Rate LFD	39,903	0.2663	0.1142	0.0630	0.0360	0.1502
Rate XD Firm Interruptible	-	-	-	-	-	-
Total	149,834	0.9999	0.4287	1.0000	0.5713	1.0000

* The weighting of the factors is based on the percentage of average daily throughput of 335,300 mcf divided by peak day demand of 782,198 mcf. ($335,300 / 782,198 = 42.87\%$)

FACTOR 4A. ALLOCATION OF COSTS ASSOCIATED WITH LOAD DISPATCHING AND M&R STATION EQUIPMENT.

Factors are based on the weighting of the factors derived from average daily throughput volumes and from maximum day extra capacity demand for each service classification, as follows:

Service Classification	Throughput	Average Daily Throughput		Maximum Day Extra Demand		Allocation Factor (7)=(4)+(6)
		Allocation Factor 2	Weighted Factor	Allocation Factor 3	Weighted Factor	
(1)	(2)	(3)	(4)=(3)x 0.4287	(5)	(6)=(5)x 0.5713	
<u>Volumetric</u>						
Rate R	62,313	0.1859	0.0798	0.5011	0.2862	0.3660
Rate N	38,743	0.1155	0.0494	0.3091	0.1766	0.2260
Rate DS	8,875	0.0265	0.0114	0.0378	0.0216	0.0330
Rate LFD	39,903	0.1190	0.0510	0.0570	0.0326	0.0836
Rate XD-Firm Interruptible	47,722	0.1423	0.0610	0.0950	0.0543	0.1153
	137,744	0.4108	0.1761	-	-	0.1761
Total	335,300	1.0000	0.4287	1.0000	0.5713	1.0000

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH SMALL DISTRIBUTION MAINS.

Factors are based on the weighting of the factors derived from average daily throughput volumes and from maximum day extra capacity demand for each service classification, as follows:

Service Classification	Average Daily Throughput			Maximum Day Extra Demand		Allocation Factor 5 (7)
	Volumes (Mcf) (2)	Allocation Factor (3)	Weighted Factor (4)=(3)x 0.4287	Allocation Factor 3B (5)	Weighted Factor (6)=(5)x 0.5713	
<u>Volumetric Costs</u>						
Rate R	62,313	0.5304	0.2273	0.5834	0.3333	0.5606
Rate N	38,743	0.3297	0.1413	0.3600	0.2057	0.3470
Rate DS	8,875	0.0755	0.0324	0.0440	0.0251	0.0575
Rate LFD	7,582	0.0645	0.0277	0.0126	0.0072	0.0349
Rate XD - Firm Interruptible (IS)	-	-	-	-	-	-
Total	117,513	1.0001	0.4287	1.0000	0.5713	1.0000

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 6. ALLOCATION OF COSTS ASSOCIATED WITH ACCOUNT 381, METERS.

Factors are based on the cost of meters by class included in Account 381, Meters.

<u>Service Classification</u> (1)	<u>Number of Meters</u> (2)	<u>Meter Ratio</u>	<u>Weighted Meters</u>	<u>REVISED Allocation Factor</u> (3)
<u>Customer Costs</u>				
Rate R	348,120	1.00	348,120	0.5141
Rate N	38,394	7.83	300,625	0.4439
Rate DS	592	20.23	11,979	0.0177
Rate LFD	464	20.23	9,389	0.0139
Rate XD-Firm	27	20.23	546	0.0008
Interruptible	<u>322</u>	20.23	<u>6,516</u>	<u>0.0096</u>
Total	387,919		677,175	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 6B. ALLOCATION OF COSTS ASSOCIATED WITH INDUSTRIAL MEASURING AND REGULATING EQUIPMENT, ACCOUNT 385.

Factors are based on the cost of M&R equipment by class included in Account 385, Industrial Measuring and Regulating Equipment.

<u>Service Classification</u> (1)	<u>Cost of M&R Equipment</u> (2)	<u>Allocation Factor</u> (3)
<u>Customer Costs</u>		
Rate N	\$ 1,223,583	0.2480
Rate LFD	3,386,038	0.6862
Rate XD - Firm	316,174	0.0641
Interruptible	8,475	0.0017
Total	\$ 4,934,270	1.0000

FACTOR 6C. ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.

Factors are based on the cost of services by class included in Account 380, Service Lines.

<u>Service Classification</u> (1)	<u>Cost of Services</u> (2)	<u>Allocation Factor</u> (3)
<u>Customer Costs</u>		
Rate R	\$ 436,652,618	0.8596
Rate N	61,565,658	0.1213
Rate DS	3,993,767	0.0079
Rate LFD	3,130,250	0.0062
Rate XD - Firm	372,098	0.0007
Interruptible	2,172,285	0.0043
Total	\$ 507,886,676	1.0000

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 7. ALLOCATION OF COSTS ASSOCIATED WITH CUSTOMER ACCOUNTING.
AND METER READING

Factors are based on the number of customers for each classification, as follows.

<u>Service Classification</u> (1)	<u>Number of Customers</u> (2)	<u>Allocation Factor 7</u> (3)
<u>Customer Costs</u>		
Rate R	348,120	0.8974
Rate N	38,394	0.0990
Rate DS	592	0.0015
Rate LFD	464	0.0012
Rate XD	27	0.0001
Interruptible	<u>322</u>	<u>0.0008</u>
Total	<u><u>387,919</u></u>	<u><u>1.0000</u></u>

FACTOR 8. ALLOCATION OF COSTS ASSOCIATED WITH SALES EXPENSES.

Factors are based on the number of Rate R and Rate N customers.

<u>Service Classification</u> (1)	<u>Number of Customers</u> (2)	<u>Allocation Factor</u> (3)
<u>Customer Costs</u>		
Rate R	348,120	0.9007
Rate N	<u>38,394</u>	<u>0.0993</u>
Total	<u><u>386,514</u></u>	<u><u>1.0000</u></u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 9 (DA). ALLOCATION OF CUSTOMER ASSISTANCE EXPENSES.

These costs are directly assigned to the Residential Classification.

<u>Service Classification</u>	<u>Allocation Factor</u>
(1)	(3)
<u>Customer Costs</u>	
Rate R	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 10. ALLOCATION OF DISTRIBUTION OPERATION OTHER EXPENSES AND RENT.

Factors are based on distribution operation expenses other than those being allocated.

<u>Service Classification</u> (1)	<u>Operation Expenses</u> (2)	<u>Allocation Factor</u> (3)
<u>Volumetric Costs</u>		
Rate R	\$ 3,152,839	0.2037
Rate N	1,950,514	0.1260
Rate DS	313,189	0.0202
Rate LFD	639,992	0.0413
Rate XD	279,617	0.0181
Interruptible	238,851	0.0154
<u>Customer Costs</u>		
Rate R	6,176,005	0.3991
Rate N	2,178,113	0.1407
Rate DS	98,799	0.0064
Rate LFD	363,712	0.0235
Rate XD	32,995	0.0021
Interruptible	54,375	0.0035
Total	<u>\$ 15,479,001</u>	<u>1.0000</u>

FACTOR 11. ALLOCATION OF DISTRIBUTION MAINTENANCE OTHER EXPENSES.

Factors are based on distribution maintenance expenses other than those being allocated.

<u>Service Classification</u> (1)	<u>Maintenance Expenses</u> (2)	<u>Allocation Factor</u> (3)
<u>Volumetric Costs</u>		
Rate R	\$ 7,008,844	0.4259
Rate N	4,337,225	0.2635
Rate DS	705,521	0.0429
Rate LFD	1,396,693	0.0849
Rate XD	391,429	0.0238
Interruptible	118,291	0.0072
<u>Customer Costs</u>		
Rate R	1,726,944	0.1049
Rate N	532,834	0.0324
Rate DS	23,877	0.0015
Rate LFD	184,804	0.0112
Rate XD	17,154	0.0010
Interruptible	13,386	0.0008
Total	<u>\$ 16,457,002</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 12. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES.

Factors are based on the allocation of operation and maintenance expenses.

<u>Service Classification</u> (1)	<u>Operation & Maintenance Expenses</u> (2)	<u>Allocation Factor</u> (3)
<u>Volumetric Costs</u>		
Rate R	\$ 13,266,023	0.2045
Rate N	7,241,028	0.1116
Rate DS	1,150,368	0.0177
Rate LFD	2,303,858	0.0355
Rate XD	778,530	0.0120
Interruptible	439,241	0.0068
<u>Customer Costs</u>		
Rate R	32,897,403	0.5070
Rate N	5,667,057	0.0873
Rate DS	214,099	0.0033
Rate LFD	738,030	0.0114
Rate XD	63,004	0.0010
Interruptible	125,370	0.0019
Total	<u>\$ 64,884,011</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 13. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of total operation and maintenance direct labor expense to service classifications as shown on the following page.

Service Classification (1)	Total Labor Expense (2)	Allocation Factor (3)
<u>Volumetric Costs</u>		
Rate R	\$ 6,554,733	0.1887
Rate N	3,895,844	0.1121
Rate DS	622,355	0.0179
Rate LFD	1,255,808	0.0361
Rate XD	468,679	0.0135
Interruptible	320,922	0.0092
<u>Customer Costs</u>		
Rate R	17,177,724	0.4945
Rate N	3,721,779	0.1071
Rate DS	138,727	0.0040
Rate LFD	468,013	0.0135
Rate XD	41,556	0.0012
Interruptible	76,867	0.0022
Total	<u>\$ 34,743,007</u>	<u>1.0000</u>

FACTOR 14. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS, MISCELLANEOUS INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.

Factors are based on the allocation of the original cost less depreciation excluding the items being allocated, as follows:

Service Classification (1)	Original Cost Less Depreciation (2)	Allocation Factor (3)
<u>Volumetric Costs</u>		
Rate R	\$ 330,617,448	0.2688
Rate N	202,320,463	0.1645
Rate DS	31,269,055	0.0254
Rate LFD	62,233,567	0.0506
Rate XD	15,165,501	0.0123
Interruptible	905,970	0.0007
<u>Customer Costs</u>		
Rate R	471,274,540	0.3831
Rate N	101,218,357	0.0823
Rate DS	5,281,401	0.0043
Rate LFD	6,390,278	0.0052
Rate XD	599,753	0.0005
Interruptible	2,880,558	0.0023
Total	<u>\$ 1,230,156,891</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs							Customer Costs				
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)
DIRECT LABOR EXPENSE														
750-760	Total Production & Gathering Operation Expenses	1	-	-	-	-	-	-	-	-	-	-	-	-
761 - 769	Total Gas Raw Materials Expenses	1	68,000	-	-	-	-	-	-	-	-	-	-	-
850 - 860	Total Transmission Operation Expenses	4	-	50,259	17,741	-	-	-	-	-	-	-	-	-
861 - 867	Total Transmission Maintenance Expenses	4	-	-	-	-	-	-	-	-	-	-	-	-
870	Operation Supervision and Engineering	10	2,093,000	426,344	263,718	42,279	66,441	37,663	32,232	635,316	294,465	13,395	49,168	4,385
871	Distribution Load Dispatching	4a	439,900	159,576	96,536	14,388	36,450	50,271	78,780	-	-	-	-	7,326
874	Mains And Services Expenses													
	Mains - Small	5	768,244	430,678	266,581	44,174	26,812	-	-	-	-	-	-	-
	Mains - Large	17	1,172,256	555,649	343,823	55,448	168,805	48,773	1,758	-	-	-	-	-
	Services	6C	1,948,500	-	-	-	-	-	-	-	-	-	-	-
875	M & R Station Expenses -General	4a	233,000	65,278	52,658	7,689	19,479	26,865	41,031	1,668,054	235,383	15,330	12,031	1,358
876	Measuring and Regulating Station Expenses-Indust	6B	225,000	-	-	-	-	-	-	-	55,800	-	154,395	14,423
877	Measuring and Regulating Station Expenses-City G	4a	168,000	61,488	37,968	5,544	14,045	19,370	20,585	-	-	-	-	383
878	Meter And House Regulator Expenses	6	1,447,000	-	-	-	-	-	-	743,903	642,323	25,612	20,113	1,156
879	Customer Installation Expenses	6	994,000	-	-	-	-	-	-	511,915	441,237	17,594	13,917	795
880	Other Expenses	10	1,059,000	345,683	213,948	34,300	70,127	30,734	20,149	677,672	238,909	10,867	39,903	3,666
881	Rent	10	-	-	-	-	-	-	-	-	-	-	-	5,943
885	Supervision - Engineering and Labor	11	661,000	281,520	174,174	28,357	58,119	15,732	4,759	69,339	21,418	992	7,403	661
886	Structures & Improvements	18	-	-	-	-	-	-	-	-	-	-	-	529
887	Mains - Small	5	1,601,811	697,875	555,828	92,104	55,903	-	-	-	-	-	-	-
	Mains - Large	17	2,444,189	1,158,546	718,681	115,010	351,963	87,523	3,666	-	-	-	-	-
889	M & R Equip - General	4a	38,000	13,176	8,136	1,188	3,010	4,151	6,340	-	-	-	-	-
890	M & R Equip - Ind	6B	60,000	-	-	-	-	-	-	-	-	-	-	-
891	M & R Equip - CG Check Station	4a	180,000	65,680	40,680	5,940	15,948	20,754	31,698	-	14,680	-	41,172	3,848
892	Services	6C	692,000	-	-	-	-	-	-	-	-	-	-	102
893	Meters & House Regulators	6	371,000	-	-	-	-	-	-	758,167	106,987	6,966	5,468	617
895	Other Equipment	11	47,000	20,017	12,385	2,016	3,990	1,119	338	180,731	184,687	6,567	5,157	3,783
894	Other Equipment	11	-	-	-	-	-	-	-	4,930	1,523	71	528	297
901	Supervision	7	362,000	-	-	-	-	-	-	-	-	-	-	47
902	Meter Reading Expenses	7	828,000	-	-	-	-	-	-	324,859	35,836	543	434	36
903	Customer Records & Coll Expenses	7	4,861,000	-	-	-	-	-	-	561,772	61,874	939	751	290
907	Supervision	7	134,000	-	-	-	-	-	-	4,362,261	481,239	7,282	5,833	63
908	Customer Assistance Expenses	9	668,000	-	-	-	-	-	-	120,252	13,266	201	181	107
910	Miscellaneous Customer Service & Info. Exp.	7	28,000	-	-	-	-	-	-	668,000	-	-	-	-
911	Supervision	8	-	-	-	-	-	-	-	25,127	2,772	42	34	3
912	Demonstrating And Selling Expenses	8	546,000	-	-	-	-	-	-	-	-	-	-	22
920	Administrative & General Salaries	12	6,808,000	1,801,236	982,973	155,902	312,684	105,696	59,694	491,782	54,218	-	-	-
921	Office Supplies And Expenses	12	240,000	49,080	28,784	4,248	6,520	2,880	1,832	4,465,656	768,838	29,056	100,411	8,608
925	Injuries and Damages	12	552,000	112,884	61,603	9,770	19,598	6,624	3,764	121,880	20,952	782	2,736	456
932	Maintenance of General Plant	12	192,000	39,264	21,427	3,358	6,818	2,304	1,306	279,664	48,190	1,622	6,293	552
	Total Direct Labor Expense		34,743,000	6,554,733	3,895,844	622,345	1,255,808	468,679	320,622	17,177,724	3,721,779	138,727	458,613	41,556
														76,667

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 15. ALLOCATION OF RETURN AND TAXES.

Factors are based on the result of allocating the original cost measure of value, as presented on the following page.

Service Classification (1)	Original Cost Less Depreciation (2)	Allocation Factor (3)
<u>Volumetric Costs</u>		
Rate R	\$ 248,159,084	0.2687
Rate N	151,857,662	0.1645
Rate DS	23,477,231	0.0254
Rate LFD	46,711,271	0.0506
Rate XD	11,392,295	0.0123
Interruptible	691,235	0.0007
<u>Customer Costs</u>		
Rate R	353,752,965	0.3831
Rate N	75,971,618	0.0823
Rate DS	3,862,313	0.0043
Rate LFD	4,795,102	0.0052
Rate XD	446,371	0.0005
Interruptible	2,174,999	0.0024
Total	<u>\$ 923,392,146</u>	<u>1.0000</u>

FACTOR 16. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS AND OTHER REVENUES.

Factors are based on the allocated cost of service excluding those items being allocated.

Service Classification (1)	Total Cost of Service (2)	Allocation Factor (3)
<u>Volumetric Costs</u>		
Rate R	\$ 62,881,613	0.2273
Rate N	36,979,021	0.1337
Rate DS	5,798,811	0.0210
Rate LFD	11,579,249	0.0419
Rate XD	3,227,351	0.0117
Interruptible	957,150	0.0035
<u>Customer Costs</u>		
Rate R	126,150,271	0.4558
Rate N	24,813,014	0.0897
Rate DS	1,130,014	0.0041
Rate LFD	2,284,523	0.0083
Rate XD	205,466	0.0007
Interruptible	635,487	0.0023
Total	<u>\$ 276,641,970</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volumetric Costs							Customer Costs					
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)	
RATE BASE															
DISTRIBUTION PLANT															
374	Land	2,273,343	1,153,722	713,830	118,385	231,654	55,697	2,046	-	-	-	-	-	-	
374	Land Rights of Way	-	-	-	-	-	-	-	-	-	-	-	-	-	
375	Structures And Improvements	739,180	375,134	232,103	37,646	75,322	18,110	665	-	-	-	-	-	-	
376	Mains - Small	215,322,849	120,709,989	74,717,029	12,381,864	7,514,767	-	-	-	-	-	-	-	-	
	Mains - Large	328,559,063	182,472,457	100,539,073	18,187,862	49,349,571	-	-	-	-	-	-	-	-	
	Mains - Direct Assign	14,193,075	DA	-	-	-	13,686,419	506,656	-	-	-	-	-	-	
378	Measuring & Regulating Equipment - General	28,975,073	14,704,850	9,098,173	1,483,524	2,952,560	709,889	26,078	-	-	-	-	-	-	
379	Measuring & Regulating Equipment - SCADA	650,318	333,082	206,084	33,604	66,879	16,060	591	-	-	-	-	-	-	
379	Measuring & Regulating Equipment - City Gate	1,700,598	863,053	533,988	87,071	173,291	41,665	1,531	-	-	-	-	-	-	
380	Services	433,144,508	6C	-	-	-	-	-	372,331,018	52,540,429	3,421,842	2,685,496	303,201	1,862,521	
381	Meters	36,121,391	-	-	-	-	-	-	18,570,007	18,034,285	639,349	502,087	28,887	348,765	
382	Meter Installations	42,041,138	-	-	-	-	-	-	21,813,348	18,882,060	744,128	584,372	33,633	403,595	
383	House Regulators	5,737,053	-	-	-	-	-	-	2,948,419	2,548,678	101,548	79,743	4,580	55,078	
384	House Regulator Installations	9,928,842	-	-	-	-	-	-	3,582,169	3,075,757	122,842	98,312	5,543	66,518	
385	Industrial Measuring & Regulating Equipment	2,576,872	-	-	-	-	-	-	-	639,089	-	1,768,318	185,184	4,381	
386	Other Property on Customer Premises	208,382	-	-	-	-	-	-	108,101	81,813	3,853	2,859	165	1,981	
386	Other Property on Customer Premises - Farm Taps	362,939	-	-	-	-	-	-	168,587	161,105	6,424	5,045	230	3,484	
386	Other Property on Customer Premises - Gas Lights	1,113	-	-	-	-	-	-	582	494	20	15	1	11	
386	Other Property on Customer Premises - CNG Refill	(1,038)	-	-	-	-	-	-	(533)	(460)	(18)	(14)	(1)	(10)	
387	Other Equipment	1,330,441	271,011	167,630	28,875	54,947	24,081	20,489	530,979	187,193	8,515	31,285	2,794	4,857	
387	Other Equipment - Graphic Data Base	45,275	9,018	5,579	894	1,829	601	682	17,570	6,229	283	1,040	93	155	
	Total Distribution Plant	1,120,913,618	300,892,317	188,213,495	30,383,235	60,420,820	14,552,742	558,738	419,867,338	93,944,478	5,048,384	5,750,550	544,390	2,749,134	
GENERAL PLANT															
389	Land and Land Rights	1,492,787	305,271	188,593	26,422	52,993	17,913	10,151	756,833	130,319	4,928	17,018	1,483	2,838	
390	Structures And Improvements	16,370,674	3,347,893	1,828,987	289,781	581,159	196,448	111,321	8,299,632	1,428,180	54,023	180,826	16,371	31,104	
391	Office Furniture And Equipment	1,227,472	251,818	138,886	21,728	43,578	8,347	622,328	107,158	4,051	13,993	1,227	2,332	3,332	
392	Transportation Equipment	780,686	147,382	80,430	12,756	25,585	8,948	4,901	365,382	62,917	2,378	8,216	721	1,389	
394	Tools, Shop And Garage Equipment	6,827,397	1,355,303	739,818	117,305	235,273	78,529	45,000	3,386,090	578,572	21,870	75,552	6,627	12,582	
396	Power Operated Equipment	55,398	11,328	6,182	981	1,987	665	377	28,087	4,838	183	632	55	105	
397	Communication Equipment	90,438	18,495	10,093	1,601	3,211	1,065	615	45,852	7,885	298	1,031	80	172	
398	Miscellaneous Equipment	515,188	105,358	57,495	9,119	18,289	6,182	3,503	281,199	44,678	1,700	5,873	515	979	
399	Other Tangible Property	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Total General Plant	27,100,027	5,841,957	3,024,384	478,871	982,052	325,300	184,281	13,739,713	2,365,835	89,429	308,941	27,099	51,489	
	Total Plant	1,148,013,645	306,734,274	189,237,879	30,864,906	61,382,872	14,877,942	743,019	433,607,051	96,310,309	5,137,813	6,055,491	571,489	2,800,623	
COMMON PLANT ALLOCATED @ 15.38%															
390.2	Structures and Improvements	3,171	648	354	56	113	38	22	1,808	277	10	36	3	6	
391	Office Furniture and Equipment	110,484	22,590	12,328	1,955	3,921	1,328	751	58,005	9,644	365	1,289	110	210	
392.1	Transportation Equipment	1,920	311	170	27	54	18	10	771	135	9	17	3	3	
	Total Common Plant	115,155	23,549	12,852	2,038	4,088	1,382	783	59,384	10,054	380	1,312	115	219	
INFORMATION SERVICES (IS) ALLOCATED @ 48.83%															
391	Office Furniture and Equipment	9,425,306	1,927,475	1,051,864	166,828	334,588	113,104	64,092	4,778,630	822,829	31,104	107,448	9,425	17,908	
391.1	Office Furniture and Equip. - New CIS Software	43,006,009	-	-	-	-	-	-	38,593,582	4,257,585	84,809	51,607	4,301	34,605	
	Total Information Services	52,431,315	1,927,475	1,051,864	166,828	334,588	113,104	64,092	43,372,212	5,080,414	85,913	159,055	13,726	52,313	
Less: Reading Service Center Allocated to Other Divisions															
390.1	Structures And Improvements @ 51.74%	(478,228)	(97,389)	(53,147)	(8,429)	(18,908)	(5,715)	(2,238)	(241,448)	(41,573)	(1,573)	(5,429)	(478)	(905)	
INTANGIBLE PLANT															
301	Organization (Allocated at 15.38%)	21,345	5,738	3,511	542	1,080	283	15	8,177	1,757	92	111	11	49	
302	Franchises And Consents	28,296	7,595	4,648	718	1,430	348	20	10,625	2,325	122	147	14	65	
304	Land and Land Rights	381,652	182,588	82,782	9,694	19,312	4,694	267	148,211	31,410	1,641	1,886	191	878	
305	Manufactured Gas Plant Remediation	318,823	234,238	82,885	-	-	-	-	-	-	-	-	-	-	
	Total Nondepreciable Plant	748,178	350,169	183,826	10,954	21,822	5,305	302	185,213	35,492	1,855	2,243	218	932	
	Total Utility Plant in Service	1,200,832,080	388,638,068	190,403,054	31,018,297	81,726,474	14,992,018	804,858	478,981,422	101,394,704	5,234,089	6,222,672	585,070	2,853,242	
OTHER RATE BASE ELEMENTS															
	Gas Storage Inventory	21,730,000	13,398,718	8,331,282	-	-	-	-	-	-	-	-	-	-	

UGI UTILITIES, INC. - GAS DIVISION

COST OF SERVICE AS OF SEPTEMBER 30, 2017, AT PROPOSED REVENUE LEVEL ALLOCATED TO RATE R, RATE N, RATE DS, RATE LFD, RATE XD, AND INTERRUPTIBLE SERVICE CLASSIFICATIONS

Account (1)	Factor Ref. (2)	Cost of Service (3)	Volume-Related Costs					Customer Costs						
			Rate R (4)	Rate N (5)	Rate DS (6)	Rate LFD (7)	Rate XD Firm (8)	Interruptible (9)	Rate R (10)	Rate N (11)	Rate DS (12)	Rate LFD (13)	Rate XD Firm (14)	Interruptible (15)
Cash Working Capital	12	10,667,000	2,185,492	1,102,669	169,160	379,389	126,244	72,672	5,419,309	932,975	35,267	121,632	10,667	20,305
Cash Working Capital - Purchased Gas Related	1	7,961,000	5,893,975	2,077,025	-	-	-	-	-	-	-	-	-	-
Materials & Supplies	12	4,212,000	861,354	470,059	74,552	149,526	50,544	28,642	2,135,484	367,708	13,900	48,017	4,212	8,003
Deferred Taxes	14	(307,196,000)	(82,574,265)	(50,533,742)	(7,802,778)	(15,544,118)	(3,778,511)	(219,037)	(117,886,788)	(25,282,231)	(1,320,943)	(1,587,419)	(153,598)	(708,551)
Customer Deposits	6	(14,517,000)	-	-	-	-	-	-	(13,075,462)	(1,441,538)	-	-	-	-
Investment Tax Credit	14	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Rate Base Elements		(277,123,000)	(80,244,748)	(38,462,707)	(7,539,066)	(15,015,203)	(3,599,723)	(113,723)	(123,208,457)	(25,423,069)	(1,271,776)	(1,427,670)	(138,699)	(678,243)
Total Measure of Value		\$ 823,706,060	\$ 248,393,322	\$ 181,840,347	\$ 23,477,231	\$ 48,711,271	\$ 11,282,285	\$ 681,235	\$ 353,782,965	\$ 76,971,818	\$ 3,862,313	\$ 4,788,102	\$ 448,371	\$ 2,174,999

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 17. ALLOCATION OF OPERATION AND MAINTENANCE EXPENSES ASSOCIATED WITH LARGE MAINS.

Factors are based on the allocation of rate base for large and directly assigned mains.

Service Classification	Original Cost Less Depreciation	Allocation Factor
(1)	(2)	(3)
<u>Volumetric Costs</u>		
Rate R	\$ 162,472,457	0.4740
Rate N	100,539,073	0.2933
Rate DS	16,197,962	0.0473
Rate LFD	49,349,571	0.1440
Rate XD	13,686,419	0.0399
Interruptible	506,656	0.0015
Total	<u>\$ 342,752,138</u>	<u>1.0000</u>

FACTOR 18. ALLOCATION OF RATE BASE ASSOCIATED M&R STATION EQUIPMENT.

Factors are based on the composite allocation of all mains.

Service Classification	Original Cost Less Depreciation	Allocation Factor
(1)	(2)	(3)
<u>Volumetric Costs</u>		
Rate R	\$ 283,182,446	0.5075
Rate N	175,256,102	0.3140
Rate DS	28,579,026	0.0512
Rate LFD	56,864,338	0.1019
Rate XD	13,686,419	0.0245
Interruptible	506,656	0.0009
Total	<u>\$ 558,074,987</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

FACTORS FOR ALLOCATING COST OF SERVICE TO SERVICE CLASSIFICATIONS

FACTOR 19. ALLOCATION OF UNCOLLECTIBLE ACCOUNTS

Factors are based on history of net write-offs by class.

Service Classification	5-Yr. Average of Write-offs	Allocation Factor
(1)	(2)	(3)
<u>Customer Costs</u>		
Rate R	\$ 6,527,255	0.9186
Rate N	446,108	0.0628
Rate DS	42,855	0.0060
Rate LFD	56,327	0.0079
Rate XD	-	0.0000
Interruptible	33,323	0.0047
Total	<u>\$ 7,105,868</u>	<u>1.0000</u>

FACTOR 20. ALLOCATION OF PENALTY REVENUE

Factors are based on an analysis of penalty revenue, by class.

Service Classification	Penalty Revenue	Allocation Factor
(1)	(2)	(3)
<u>Customer Costs</u>		
Rate R	\$ 1,756,329	0.5863
Rate N	1,029,704	0.3437
Rate DS	208,436	0.0696
Rate LFD	-	0.0000
Rate XD	-	0.0000
Interruptible	1,200	0.0004
Total	<u>\$ 2,995,668</u>	<u>1.0000</u>

UGI UTILITIES, INC. - GAS DIVISION

CALCULATION OF CUSTOMER COSTS PER BILL BY SERVICE CLASSIFICATION

	Cost of Service (1)	Rate R (2)	Rate N (3)	Rate DS (4)	Rate LFD (5)	Rate XD Firm (6)	Interruptible (7)
Fully Allocated Customer Costs							
Customer Costs	152,539,270	\$ 124,625,010	\$ 23,855,613	\$ 923,694	\$ 2,293,264	\$ 206,106	\$ 635,583
Number of bills	4,655,028	4,177,440	460,728	7,104	5,568	324	3,864
Customer Cost per bill		\$ 29.83	\$ 51.78	\$ 130.02	\$ 411.86	\$ 636.13	\$ 164.49
Direct Customer Costs							
O & M Expenses:							
874 Mains And Services Expenses							
Mains	-	-	-	-	-	-	-
Services	5,246,999	4,510,321	636,461	41,451	32,531	3,673	22,562
876 M & R Station Expenses - Industrial	417,000	-	103,416	-	286,145	26,730	709
878 Meter and House Regulator Expenses	1,958,999	1,007,122	869,600	34,674	27,230	1,567	18,806
879 Customer Installations Expenses	1,281,001	658,562	568,636	22,674	17,806	1,025	12,298
890 M & R Equip - Industrial	241,999	-	60,016	-	166,060	15,512	411
892 Services	1,640,000	1,409,744	198,932	12,956	10,168	1,148	7,052
893 Meters & House Regulators	617,000	317,200	273,886	10,921	8,576	494	5,923
901 Supervision	425,001	381,395	42,075	638	510	43	340
902 Meter Reading Expenses	1,001,000	898,297	99,099	1,502	1,201	100	801
903 Customer Records & Coll Expenses	13,681,000	12,277,329	1,354,419	20,522	16,417	1,368	10,945
904 Uncollectible Accounts	3,694,530	3,372,781	217,384	33,666	44,327	-	26,372
905 Miscellaneous Cust Accts Expenses	358,000	321,269	35,442	537	430	36	286
907 Supervision	163,999	147,173	16,236	246	197	16	131
908 Customer Assistance Expenses	1,308,000	1,308,000	-	-	-	-	-
910 Miscellaneous Customer Service Exp.	116,000	104,098	11,484	174	139	12	93
911 Supervision	-	-	-	-	-	-	-
912 Demonstrating and Selling Expenses	3,635,001	3,274,045	360,956	-	-	-	-
913 Advertising Expenses	111,000	99,978	11,022	-	-	-	-
916 Miscellaneous	104,000	93,673	10,327	-	-	-	-
926 Employee Pensions and Benefits	7,016,819 *	5,574,004	1,207,231	45,088	152,172	13,526	24,798
408 Payroll Taxes	2,114,633 *	1,679,817	363,819	13,588	45,860	4,076	7,473
Subtotal O & M Expenses	45,131,981	37,434,808	6,440,441	238,637	809,769	69,326	139,000

UGI UTILITIES, INC. - GAS DIVISION

CALCULATION OF CUSTOMER COSTS PER BILL BY SERVICE CLASSIFICATION

	Cost of Service (1)	Rate R (2)	Rate N (3)	Rate DS (4)	Rate LFD (5)	Rate XD Firm (6)	Interruptible (7)
Depreciation Expense							
380 Services	18,440,531	15,851,481	2,236,837	145,680	114,331	12,908	79,294
381 Meters	1,553,800	798,809	689,732	27,502	21,598	1,243	14,916
382 Meter Installations	1,578,780	811,651	700,821	27,944	21,945	1,263	15,156
383 House Regulators	404,312	207,857	179,475	7,156	5,620	323	3,881
384 House Regulator Installations	268,995	138,291	119,407	4,761	3,739	215	2,582
385 Industrial M & R Equipment	128,680	-	31,913	-	88,300	8,248	219
390 Structures and Improvements	688,326 *	570,324	98,204	3,712	12,824	1,125	2,137
391 Office Furniture And Equipment	3,895,305 *	3,424,868	430,539	9,847	22,597	1,967	5,487
Subtotal Depreciation	26,958,729	21,803,281	4,486,928	226,602	290,954	27,292	123,672
Rate Base							
380 Services	433,144,508	372,331,019	52,540,429	3,421,842	2,685,496	303,201	1,862,521
381 Meters	36,121,390	18,570,007	16,034,285	639,349	502,087	28,897	346,765
382 Meter Installations	42,041,136	21,613,348	18,662,060	744,128	584,372	33,633	403,595
383 House Regulators	5,737,054	2,949,419	2,546,678	101,546	79,745	4,590	55,076
384 House Regulator Installations	6,928,941	3,562,169	3,075,757	122,642	96,312	5,543	66,518
385 Industrial M & R Equipment	2,576,972	-	639,089	-	1,768,318	165,184	4,381
390 Structures And Improvements	10,017,216 *	8,299,932	1,429,160	54,023	186,626	16,371	31,104
391 Office Furniture and Equipment	49,592,035 *	44,050,555	5,197,226	100,029	174,307	15,063	54,855
Deferred Taxes	(146,747,530) *	(117,686,788)	(25,282,231)	(1,320,943)	(1,597,419)	(153,598)	(706,551)
Customer Deposits	(14,517,000)	(13,075,462)	(1,441,538)	-	-	-	-
Subtotal Rate Base	424,894,722	340,614,199	73,400,915	3,862,616	4,479,844	418,884	2,118,264
Taxes and Return							
@ 12.3%	52,127,636	41,787,794	9,005,092	473,880	549,604	51,390	259,876
Total Direct Customer Costs	\$ 124,218,345	\$ 101,025,882	\$ 19,932,461	\$ 939,119	\$ 1,650,327	\$ 148,008	\$ 522,548
Less: USP and EEC Recovery	9,015,112	8,125,794	393,673	90,181	405,463	-	-
Total	\$ 115,203,234	\$ 92,900,088	\$ 19,538,788	\$ 848,938	\$ 1,244,863	\$ 148,008	\$ 522,548
Number of bills	4,655,028	4,177,440	460,728	7,104	5,568	324	3,864
Direct Costs per bill		\$ 22.24	\$ 42.41	\$ 119.50	\$ 223.57	\$ 456.82	\$ 135.24

* Customer cost portion of account.

REVISED

COST OF SERVICE ALLOCATION STUDY

AS OF SEPTEMBER 30, 2017

(Average of Cost of Service Allocation Studies)

UGI UTILITIES, INC. - GAS DIVISION

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
BY SERVICE CLASSIFICATION FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2017
WITHOUT GAS COSTS

Service Classification (1)	Average of Cost of Service Studies		Pro Forma Margin Revenues,				Revenue Increase	
	Amount (2)	Percent (3)	Under Present Rates		Under Proposed Rates		Amount (8)	Percent Increase (9)
			Amount (4)	Percent (5)	Amount (6)	Percent (7)		
Rate R	\$ 186,256,441	67.8%	\$ 108,668,733 *	50.3%	\$ 152,001,162	55.3%	\$ 43,332,429	39.9%
Rate N	60,045,150	21.9%	55,100,277	25.5%	67,596,056	24.6%	12,495,779	22.7%
Rate DS	6,529,411	2.4%	10,602,234	4.9%	11,583,714	4.2%	981,480	9.3%
Rate LFD	13,267,064	4.8%	25,008,284	11.6%	26,762,521	9.7%	1,754,237	7.0%
Rate XD Firm	3,446,311	1.3%	11,785,486	5.5%	11,785,496	4.3%	-	0.0%
Interruptible	5,085,582	1.9%	4,900,000	2.3%	4,900,000	1.8%	-	0.0%
Total	\$ 274,629,959	100.1%	\$ 216,065,024	100.1%	\$ 274,628,950	99.9%	\$ 58,563,925	27.1%
Other Operating Revenues	4,480,000		4,480,000		4,480,000		0	
Total	\$279,109,959		\$220,545,024		\$279,108,950		\$58,563,925	26.6%

* Includes GL.

UGI UTILITIES, INC. - GAS DIVISION

DEVELOPMENT OF RATE OF RETURN BY SERVICE CLASSIFICATION
UNDER PRESENT RATES

<u>Item</u> (1)	<u>AVERAGE of Cost of Service Studies</u> (2)	<u>Rate R</u> (3)	<u>Rate N</u> (4)	<u>Rate DS</u> (5)	<u>Rate LFD</u> (6)	<u>Rate XD</u> (7)	<u>Interruptible</u> (8)
1. Revenues From Tariff Sales and Transportation	\$ 216,065,024	\$ 108,668,733	\$ 55,100,277	\$ 10,602,234	\$ 25,008,284	\$ 11,785,496	\$ 4,900,000
2. Other Revenues	<u>\$ 4,480,004</u>	<u>\$ 2,860,942</u>	<u>\$ 1,294,236</u>	<u>\$ 233,855</u>	<u>\$ 46,105</u>	<u>\$ 12,469</u>	<u>\$ 32,397</u>
3. Total Operating Revenues	220,545,028	111,529,675	56,394,513	10,836,089	25,054,389	11,797,965	4,932,397
4. Less: Operating Expenses	<u>164,812,278</u>	<u>115,034,956</u>	<u>33,897,486</u>	<u>3,516,026</u>	<u>7,357,338</u>	<u>2,016,777</u>	<u>2,989,693</u>
5. Return and Income Taxes	55,732,752	(3,505,281)	22,497,027	7,320,063	17,697,051	9,781,188	1,942,704
6. Less: Interest Expense	<u>20,044,000</u>	<u>12,922,367</u>	<u>4,858,666</u>	<u>575,263</u>	<u>1,056,319</u>	<u>256,563</u>	<u>374,823</u>
7. Taxable Income	35,688,752	(16,427,648)	17,638,361	6,744,800	16,640,732	9,524,625	1,567,881
8. Less: Income Taxes	13,962,000	(6,426,709)	6,900,020	2,638,818	6,510,481	3,726,458	612,932
9. Net Return (Ln 5 - Ln 8)	41,770,752	2,921,428	15,597,007	4,681,245	11,186,570	6,054,730	1,328,772
10. Original Cost Measure of Value (Factor 15.)	923,726,954	595,477,089	223,915,090	26,512,362	48,705,723	11,841,232	17,275,458
11. Rate of Return, Percent	4.52%	0.49%	6.97%	17.66%	22.97%	51.13%	7.70%
12. Relative Rate of Return	1.00	0.11	1.54	3.80	5.08	11.31	1.70

UGI UTILITIES, INC. - GAS DIVISION

DEVELOPMENT OF RATE OF RETURN BY SERVICE CLASSIFICATION
UNDER PROPOSED RATES

Item (1)	AVERAGE of Cost of Service Studies (2)	Rate R (3)	Rate N (4)	Rate DS (5)	Rate LFD (6)	Rate XD-Firm (7)	Interruptible (8)
1. Revenues From Tariff Sales and Transportation	\$ 274,628,950	\$ 152,001,162	\$ 67,596,056	\$ 11,583,714	\$ 26,762,521	\$ 11,785,496	\$ 4,900,000
2. Other Revenues	4,480,002	2,855,712	1,297,691	234,624	46,648	12,435	32,892
3. Total Operating Revenues	279,108,952	154,856,874	68,893,747	11,818,338	26,809,169	11,797,931	4,932,892
4. Less: Operating Expenses	165,785,957	116,068,751	33,876,468	3,512,425	7,338,150	2,008,206	2,981,957
5. Return and Income Taxes	113,322,995	38,788,123	35,017,279	8,305,913	19,471,019	9,789,725	1,950,935
6. Less: Interest Expense	20,044,000	12,924,371	4,856,661	575,263	1,056,318	256,563	374,823
7. Taxable Income	93,278,995	25,863,752	30,160,618	7,730,650	18,414,700	9,533,162	1,576,112
8. Less: Income Taxes	37,857,000	10,497,746	12,239,168	3,138,345	7,472,972	3,868,985	639,783
9. Net Return (Ln 5 - Ln 8)	75,465,995	28,290,377	22,778,111	5,167,568	11,998,047	5,920,740	1,311,152
10. Original Cost Measure of Value (Factor 15.)	923,709,068	595,581,691	223,843,643	26,499,596	48,675,086	11,831,020	17,278,032
11. Rate of Return, Percent	8.17%	4.75%	10.18%	19.50%	24.65%	50.04%	7.59%
12. Relative Rate of Return	1.00	0.58	1.25	2.39	3.02	6.13	0.93

UGI Gas Exhibit PRH-2

PENNSYLVANIA SUBURBAN WATER COMPANY

CALCULATION OF THE TOTAL DIRECT COSTS APPLICABLE TO 5/8-INCH CUSTOMER CHARGES

Description	Exhibit No. 50-B Reference	Meters	Services	Billing & Collecting	Meter Reading	Total
Direct Costs:						
T & D O&M Expenses	p. A-39	\$3,221,555	\$1,467,756			\$4,689,311
Customer Accounting Exps.	p. A-39			8,215,662	1,276,766	9,492,428
Employee Health Plans	p. A-39	1,521,970	680,457	1,899,107	385,190	4,486,724
Payroll Taxes	p. A-42	262,363	117,300	327,376	66,401	773,440
PUC/OCA Assessments	p. A-42	123,215	132,978	123,047	19,863	399,103
Subtotal Expenses		5,129,103	2,398,491	10,565,192	1,748,220	19,841,006
Depreciation:						
Meters	p. A-41	3,922,247				3,922,247
Services	p. A-41		3,529,954			3,529,954
Office Buildings	p. A-40	47,820	21,804	122,002	18,979	210,605
Office Furniture/Equipment	p. A-41	16,937	7,723	43,210	6,722	74,592
Computers	p. A-41	478,301	218,086	1,220,288	189,834	2,106,509
Subtotal Depreciation		4,465,305	3,777,567	1,385,500	215,535	9,843,907
Rate Base:						
Meters	p. A-45	53,731,923				53,731,923
Services	p. A-45		103,681,155			103,681,155
Office Buildings/Land	p. A-44	1,400,415	638,531	3,572,873	555,812	6,167,631
Office Furniture/Equipment	p. A-45	138,898	63,331	354,367	55,127	611,723
Computers	p. A-45	1,202,476	548,279	3,067,872	477,252	5,295,878
Subtotal Rate Base		56,473,712	104,931,296	6,995,112	1,088,191	169,488,311
Return @	9.15% of Rate Base	5,166,789	9,600,181	639,984	99,559	15,506,513
Income Taxes @	48.60% of Return	2,511,297	4,666,129	311,062	48,390	7,536,878
Subtotal Expenses, Depreciation Return and Taxes		17,272,494	20,442,368	12,901,738	2,111,704	52,728,304
Less: Other Revenues	p. A-43	(376,507)	(406,339)	(375,993)	(60,694)	(1,219,533)
Total Direct Customer Costs		16,895,987	20,036,029	12,525,745	2,051,010	51,508,771
Plus: Unrecovered Public Fire		7,253,648				7,253,648
Total		24,149,635	20,036,029	12,525,745	2,051,010	58,762,419
Number of Units		422,340	390,001	4,561,548	4,561,548	
Cost Per Monthly Bill		\$4.77	\$4.28	\$2.75	\$0.45	\$12.25

PENNSYLVANIA SUBURBAN WATER COMPANY

COST OF SERVICE AS OF JUNE 30, 2004, AT REVENUE LEVEL PROPOSED UNDER SUPPLEMENT NO.49 TO TARIFF WATER-PA. P.U.C. NO. 1,
ALLOCATED TO COST FUNCTIONS

ACCOUNT (1)	FACTOR REF (2)	COST OF SERVICE (3)	BASE (4)	---EXTRA CAPACITY---		CUSTOMER FACILITIES		CUSTOMER ACCOUNTING		-----FIRE SERVICE-----		
				MAX DAY (5)	MAX HOUR (6)	METERS (7)	SERVICES (8)	BILLING & COLLECTING (9)	METER READING (10)	PRIVATE FIRE (11)	PUBLIC FIRE (12)	RESIDENTIAL FIRE (13)
OPERATION AND MAINTENANCE EXPENSES												
SOURCE OF SUPPLY EXPENSES												
-OPERATION-												
6011												
Operation Labor												
Treatment Plants & Wells	2	163,929	116,274	46,835						148	672	
Booster Stations	3	9,265	6,237	2,486						126	412	4
6201												
Materials and Supplies												
Treatment Plants & Wells	2	1,054,303	747,817	301,214						949	4,323	
Booster Stations	3	59,590	40,116	15,988						810	2,652	24
6501												
Transportation												
Treatment Plants & Wells	2	691,554	490,520	197,577						622	2,835	
Booster Stations	3	39,088	26,314	10,487						532	1,739	16
6571												
General Liability												
Treatment Plants & Wells	2	1,789	1,269	511						2	7	
Booster Stations	3	102	69	27						1	5	
6751												
Miscellaneous												
Treatment Plants & Wells	2	56,580	40,132	16,165						51	232	
Booster Stations	3	3,199	2,154	858						44	142	1
Total Operation		2,079,399	1,470,902	592,148						3,285	13,019	45
-MAINTENANCE-												
6012												
Maintenance Labor												
Treatment Plants & Wells	2	421,594	299,037	120,449						379	1,729	
Booster Stations	3	156,725	105,508	42,049						2,131	6,974	63
6202												
Materials and Supplies												
Treatment Plants & Wells	2	70,376	49,918	20,106						63	289	
Booster Stations	3	26,162	17,613	7,019						356	1,164	10
6502												
Transportation												
Treatment Plants & Wells	2	71,551	50,752	20,442						64	293	
Booster Stations	3	26,599	17,905	7,137						362	1,184	11
6752												
Miscellaneous												
Treatment Plants & Wells	2	1,689	1,197	483						2	7	
Booster Stations	3	629	423	169						9	28	
Total Maintenance		775,325	542,353	217,854						3,366	11,668	84

PENNSYLVANIA SUBURBAN WATER COMPANY

COST OF SERVICE AS OF JUNE 30, 2004, AT REVENUE LEVEL PROPOSED UNDER SUPPLEMENT NO.49 TO TARIFF WATER-PA. P.U.C. NO. 1,
ALLOCATED TO COST FUNCTIONS

ACCOUNT (1)	FACTOR REF (2)	COST OF SERVICE (3)	BASE (4)	---EXTRA CAPACITY---		CUSTOMER FACILITIES		CUSTOMER ACCOUNTING BILLING & COLLECTING (9)	METER READING (10)	-----FIRE SERVICE-----		
				MAX DAY (5)	MAX HOUR (6)	METERS (7)	SERVICES (8)			PRIVATE FIRE (11)	PUBLIC FIRE (12)	RESIDENTIAL FIRE (13)
OPERATION AND MAINTENANCE EXPENSES, CONT.												
SOURCE OF SUPPLY EXPENSES, CONT.												
-MISCELLANEOUS-												
6101		Water Purchased for Resale	1	8,011,184	7,954,304					10,415	46,465	
		Total Miscellaneous		8,011,184	7,954,304					10,415	46,465	
		Total Source of Supply Expenses		10,865,908	9,967,559	810,002				17,066	71,152	129
-MISCELLANEOUS-												
6151		Power Purchased	1	9,340,848	9,274,528					12,143	54,177	
		Total Power Expenses		9,340,848	9,274,528					12,143	54,177	
WATER TREATMENT EXPENSES												
-OPERATION-												
6013		Operating Labor	2	5,470,242	3,880,043	1,562,848				4,923	22,428	
6153		Power Purchased - Treatment	1	799,060	793,386					1,039	4,635	
6183		Chemicals	1	2,512,791	2,494,950					3,267	14,574	
6203		Materials and Supplies	2	456,372	323,705	130,385				411	1,871	
6363		Contractor Services	2	686,887	487,209	196,244				618	2,816	
6503		Transportation	2	105,454	74,799	30,128				95	432	
6753		Miscellaneous	2	178,185	126,387	50,907				160	731	
		Total Operation		10,208,991	8,180,479	1,970,512				10,513	47,487	
-MAINTENANCE-												
6014		Maintenance Labor	2	2,898,243	2,055,724	828,028				2,608	11,883	
6204		Materials and Supplies	2	69,765	49,484	19,932				63	286	
6364		Contractor Services	2	231,087	163,910	66,022				208	947	
6424		Equipment Rental	2	638	452	182				1	3	
6504		Transportation	2	35,118	24,909	10,033				32	144	
6754		Miscellaneous	2	405	287	116					2	
		Total Maintenance		3,235,256	2,294,766	924,313				2,912	13,265	
		Total Water Treatment Expenses		13,444,247	10,475,245	2,894,825				13,425	60,752	

PENNSYLVANIA SUBURBAN WATER COMPANY

COST OF SERVICE AS OF JUNE 30, 2004, AT REVENUE LEVEL PROPOSED UNDER SUPPLEMENT NO.49 TO TARIFF WATER-PA. P.U.C. NO. 1,
ALLOCATED TO COST FUNCTIONS

ACCOUNT (1)	FACTOR REF (2)	COST OF SERVICE (3)	BASE (4)	---EXTRA CAPACITY---		CUSTOMER FACILITIES		CUSTOMER ACCOUNTING BILLING & COLLECTING (9)	METER READING (10)	-----FIRE SERVICE-----			
				MAX DAY (5)	MAX HOUR (6)	METERS (7)	SERVICES (8)			PRIVATE FIRE (11)	PUBLIC FIRE (12)	RESIDENTIAL FIRE (13)	
OPERATION AND MAINTENANCE EXPENSES, CONT.													
TRANSMISSION AND DISTRIBUTION EXPENSES													
-OPERATION-													
6015		Operating Labor											
		Supervision & Engineering	13	278,829	39,399	2,091	34,380	138,549	15,754		33,822	14,806	28
		Maps & Records	13	535,415	75,654	4,016	66,017	266,046	30,251		64,946	28,431	54
		Storage Facilities	5	363,829	169,508		170,744				5,494	17,937	146
		12 inch and Over Mains	3	88,574	59,628	23,764					1,205	3,942	35
		Under 12 inch Mains	4	479,014	217,137		218,671				10,059	32,860	287
		Hydrants	7	122,335							9,297	113,038	
		Removing & Resetting Meters	8	1,833,440				1,498,837			334,603		
		Miscellaneous Meter Expense	8	85,396				69,811			15,585		
		Services on Customers' Premise	9	185,091					178,391		6,700		
6155		Power Purchased	1	140,928	139,928						183	817	
6205		Materials and Supplies	13	1,019,175	144,009	7,644	125,664	506,429	57,583		123,626	54,118	102
6315		Contractor Services	13	213,515	30,170	1,601	26,326	106,096	12,064		25,899	11,338	21
6425		Property and Equipment Rental	13	13,667	1,931	103	1,685	6,791	772		1,658	726	1
6505		Transportation	13	835,047	117,992	6,263	102,961	414,935	47,180		101,291	44,341	84
6755		Miscellaneous	13	30,016	4,241	225	3,701	14,915	1,696		3,641	1,594	3
		Total Operation		6,224,271	999,597	45,707	750,149	3,022,409	343,691		738,009	323,948	761
-MAINTENANCE-													
6016		Maintenance Labor											
		Supervision & Engineering	14	232,460	64,298	4,975	52,141	9,810	55,395		9,205	36,566	70
		Structures & Improvements	5	58,204	27,117		27,316				879	2,869	23
		12 inch and Over Mains	3	266,739	179,568	71,566					3,628	11,870	107
		Under 12 inch Mains	4	1,580,439	716,413		721,471				33,189	108,418	948
		Services	9	825,570					795,684		29,886		
		Meters	8	172,470				140,994			31,476		
		Fire Hydrants	7	434,925							33,054	401,871	
6206		Materials and Supplies	14	324,391	89,727	6,942	72,761	13,689	77,302		12,846	51,027	97
6316		Contractor Services	14	760,986	210,489	16,285	170,689	32,114	181,343		30,135	119,703	228
6416		Equipment Rental	14	3,489	965	75	783	147	831		138	549	1

PENNSYLVANIA SUBURBAN WATER COMPANY

COST OF SERVICE AS OF JUNE 30, 2004, AT REVENUE LEVEL PROPOSED UNDER SUPPLEMENT NO.49 TO TARIFF WATER-PA. P.U.C. NO. 1, ALLOCATED TO COST FUNCTIONS

ACCOUNT (1)	FACTOR REF (2)	COST OF SERVICE (3)	BASE (4)	---EXTRA MAX DAY (5)	CAPACITY-- MAX HOUR (6)	CUSTOMER FACILITIES METERS (7)	SERVICES (8)	CUSTOMER ACCOUNTING BILLING & COLLECTING (9)	METER READING (10)	-----FIRE SERVICE----- PRIVATE FIRE (11)	PUBLIC FIRE (12)	RESIDENTIAL FIRE (13)
OPERATION AND MAINTENANCE EXPENSES, CONT.												
TRANSMISSION AND DISTRIBUTION EXPENSES, CONT.												
-MAINTENANCE-, CONT.												
6506 Transportation	14	28,162	7,790	603	6,317	1,188	6,711			1,115	4,430	8
6586 General Liability	14	1,338	371	29	300	56	319			53	210	
6756 Miscellaneous	14	27,192	7,521	582	6,099	1,148	6,480			1,077	4,277	8
Total Maintenance		4,716,365	1,304,259	101,057	1,057,877	199,146	1,124,065			186,681	741,790	1,490
Total Transmission and Distribution Expenses		10,940,636	2,303,856	146,764	1,808,026	3,221,555	1,467,756			924,690	1,065,738	2,251
CUSTOMERS' ACCOUNTING AND COLLECTING EXPENSES												
6017 Labor	12	2,724,091						2,165,925	532,832	24,789	545	
Meter Reading	11	750,765							743,933	6,832		
Other	10	3,053,528						3,024,825		27,787	916	
6367 Contractor Services	10	182,535						180,819		1,661	55	
6707 Bad Debt Expense	10	2,852,256						2,825,444		25,956	856	
6757 Miscellaneous	10	18,825						18,648		171	6	
Total Customers' Accounting and Collecting Expenses		9,582,000						8,215,661	1,276,765	87,196	2,378	
ADMINISTRATIVE AND GENERAL EXPENSES												
-OPERATION-												
6018 Labor	15	5,720,734	1,947,909	660,173	310,064	552,051	251,712	1,408,445	219,104	176,199	194,505	572
6038 Officers Labor	15	1,535,915	522,978	177,245	83,247	148,216	67,580	378,142	58,826	47,306	52,221	154
6048 Employee Health Plans	16	13,421,252	5,302,737	1,798,448	842,855	1,521,970	680,457	1,899,107	385,190	463,033	526,113	1,342
6158 Power	15	35,835	12,202	4,135	1,942	3,458	1,577	8,823	1,372	1,104	1,218	4
6208 Materials and Supplies	15	389,649	132,675	44,965	21,119	37,601	17,145	95,932	14,924	12,001	13,248	39
6318 Contractor Services - Engineering	15	10,607	3,611	1,224	575	1,024	467	2,611	406	327	361	1
6328 Contractor Services - Accounting	15	336,233	114,487	38,801	18,224	32,446	14,794	82,781	12,878	10,356	11,432	34
6338 Contractor Services - Legal	15	106,605	36,299	12,302	5,778	10,287	4,691	26,246	4,083	3,283	3,625	11

PENNSYLVANIA SUBURBAN WATER COMPANY

COST OF SERVICE AS OF JUNE 30, 2004, AT REVENUE LEVEL PROPOSED UNDER SUPPLEMENT NO.49 TO TARIFF WATER-PA. P.U.C. NO. 1,
ALLOCATED TO COST FUNCTIONS

ACCOUNT (1)	FACTOR REF (2)	COST OF SERVICE (3)	BASE (4)	---EXTRA CAPACITY---		CUSTOMER FACILITIES		CUSTOMER ACCOUNTING BILLING & COLLECTING (9)	METER READING (10)	-----FIRE SERVICE-----		
				MAX DAY (5)	MAX HOUR (6)	METERS (7)	SERVICES (8)			PRIVATE FIRE (11)	PUBLIC FIRE (12)	RESIDENTIAL FIRE (13)
OPERATION AND MAINTENANCE EXPENSES, CONT.												
ADMINISTRATIVE AND GENERAL EXPENSES												
-OPERATION-, CONT.												
6348 Contractor Services - Mgmt Fee	15	3,400,093	1,157,731	392,371	184,285	328,109	149,604	837,103	130,224	104,723	115,603	340
6358 Contractor Services - Testing	15											
6368 Contractor Services - Other	15	2,000,865	681,295	230,900	108,447	193,083	88,038	492,613	76,633	61,627	68,029	200
6418 Rent	15	83,329	28,374	9,616	4,516	8,041	3,666	20,516	3,192	2,567	2,833	8
6508 Transportation	15	3,576-	1,218-	413-	194-	345-	157-	880-	137-	110-	122-	
6578 General Liability Insurance	15	3,761,685	1,280,854	434,098	203,883	363,003	165,514	926,127	144,073	115,860	127,897	376
6608 Advertising	15	17,938	6,109	2,070	972	1,731	789	4,416	687	552	610	2
6668 Rate Case Amortization	19	1,053,965	494,837	111,193	119,414	77,150	83,263	77,045	12,437	30,354	48,061	211
6668 Meter Amortization	15											
6668 Miscellaneous Amortization	15											
6758 A & G Miscellaneous												
Labor	15	733,699	249,824	84,669	39,766	70,802	32,283	180,637	28,101	22,598	24,946	73
Other	15	4,665,634	1,588,647	538,414	252,877	450,234	205,288	1,148,679	178,694	143,702	158,632	467
Total Administrative and General Expenses		37,270,462	13,559,351	4,540,211	2,197,770	3,798,861	1,766,711	7,588,343	1,270,687	1,195,482	1,349,212	3,834
Utility Plant Acquisition Adj. Amort.	17	364,307-	171,043-	42,077-	57,961-	20,583-	37,305-	4,153-	656-	10,310-	20,110-	109-
Total Operation and Maintenance Expenses		91,079,794	45,409,496	8,349,725	3,947,835	6,999,833	3,197,162	15,799,851	2,546,796	2,239,692	2,583,299	6,105
503 DEPRECIATION EXPENSE												
304.2 Power and Pumping Structures												
Major Treatment Plants	2	180,723	128,186	51,633						163	741	
Other Structures	3	280,295	188,695	75,203						3,812	12,473	112
304.3 Purification Buildings												
Major Treatment Plants	2	1,836,205	1,302,420	524,604						1,653	7,528	
Other Structures	2	115,051	81,605	32,870						104	472	
304.61 Office Buildings	15	495,542	168,732	57,186	26,858	47,820	21,804	122,002	18,979	15,263	16,848	50

PENNSYLVANIA SUBURBAN WATER COMPANY

COST OF SERVICE AS OF JUNE 30, 2004, AT REVENUE LEVEL PROPOSED UNDER SUPPLEMENT NO.49 TO TARIFF WATER-PA. P.U.C. NO. 1, ALLOCATED TO COST FUNCTIONS

ACCOUNT (1)	FACTOR REF (2)	COST OF SERVICE (3)	BASE (4)	---EXTRA CAPACITY---		CUSTOMER FACILITIES		CUSTOMER ACCOUNTING		-----FIRE SERVICE-----		
				MAX DAY (5)	MAX HOUR (6)	METERS (7)	SERVICES (8)	BILLING & COLLECTING (9)	METER READING (10)	PRIVATE FIRE (11)	PUBLIC FIRE (12)	RESIDENTIAL FIRE (13)
503												
DEPRECIATION EXPENSE, CONT.												
304.62	15	192,555	65,565	22,221	10,436	18,582	8,472	47,407	7,375	5,931	6,547	19
304.63	15	94,384	32,138	10,892	5,116	9,108	4,153	23,237	3,615	2,907	3,209	9
305	1	477,804	474,412							621	2,771	
306	2	167,665	118,925	47,902						151	687	
307	2	863,793	612,688	246,786						777	3,542	
310.4	6	3,395	2,302	859	171					14	49	
310.7	6	411	278	104	21					2	6	
310.8	2	107	76	31								
311												
	6	1,643,818	1,114,673	415,886	82,684					6,740	23,671	164
	6	205,055	139,047	51,879	10,314					841	2,953	21
320												
	2	1,810,950	1,284,507	517,388						1,630	7,425	
	2	35,836	25,419	10,238						32	147	
	2	920,738	653,079	263,055						829	3,775	
	2	247,554	175,590	70,726						223	1,015	
	2	2,696	1,913	770						2	11	
	2	158,184	112,200	45,193						142	649	
330												
	5	710,051	330,813		333,226					10,722	35,006	284
	5	501,005	233,418		235,122					7,565	24,700	200
331												
	3	2,099,824	1,413,601	563,383						28,558	93,442	840
	4	7,572,994	3,432,838		3,457,072					159,033	519,507	4,544
333	9	3,662,537					3,529,953			132,584		
334												
	8	380,072				310,709				69,363		
	8	4,417,783				3,611,538				806,245		
335	7	1,061,662								80,686	980,976	
340												
	15	112,632	38,351	12,998	6,105	10,869	4,956	27,730	4,314	3,469	3,829	11
	15	62,876	21,408	7,256	3,408	6,068	2,767	15,480	2,408	1,937	2,138	6
	15	4,956,490	1,687,683	571,979	268,642	478,301	218,086	1,220,288	189,834	152,660	168,521	496

PENNSYLVANIA SUBURBAN WATER COMPANY

COST OF SERVICE AS OF JUNE 30, 2004, AT REVENUE LEVEL PROPOSED UNDER SUPPLEMENT NO.49 TO TARIFF WATER-PA. P.U.C. NO. 1,
ALLOCATED TO COST FUNCTIONS

ACCOUNT (1)	FACTOR REF (2)	COST OF SERVICE (3)	BASE (4)	---EXTRA CAPACITY---		CUSTOMER FACILITIES		CUSTOMER ACCOUNTING BILLING & COLLECTING (9)	METER READING (10)	-----FIRE SERVICE-----		
				MAX DAY (5)	MAX HOUR (6)	METERS (7)	SERVICES (8)			PRIVATE FIRE (11)	PUBLIC FIRE (12)	RESIDENTIAL FIRE (13)
503												
DEPRECIATION EXPENSE, CONT.												
341												
Transportation Equipment												
Vehicles	15	23,540	8,014	2,717	1,276	2,272	1,036	5,796	902	725	800	2
Other	15	27,254	9,280	3,145	1,477	2,630	1,199	6,710	1,044	839	927	3
342												
Stores Equipment	15	3,336	1,136	385	181	322	147	821	128	103	113	
343.1												
Shop Equipment	15	15,052	5,124	1,737	816	1,453	662	3,706	576	464	512	2
343.2												
Tools & Work Equipment - General	15	369,257	125,732	42,612	20,014	35,633	16,247	90,911	14,143	11,373	12,555	37
344												
Laboratory Equipment												
Conventional	2	35,114	24,906	10,032						32	144	
Electronic	2	104,944	74,437	29,983						94	430	
345												
Tools & Work Equip.-Construction	15	550,909	187,584	63,575	29,859	53,163	24,240	135,634	21,100	16,968	18,731	55
346												
Communication Equipment	15	171,691	58,462	19,813	9,306	16,568	7,554	42,270	6,576	5,288	5,837	17
347												
Miscellaneous Equipment	15	13,105	4,462	1,512	710	1,265	577	3,226	502	404	446	1
Total Depreciation Expense		36,584,889	14,339,699	3,776,553	4,502,814	4,606,301	3,841,853	1,745,218	271,496	1,530,949	1,963,133	6,873
TAXES, OTHER THAN INCOME												
Federal and State Payroll Taxes	16	2,313,611	914,107	310,024	145,295	262,363	117,300	327,376	66,401	79,820	90,694	231
State Capital Stock Tax	18	2,666,128	1,258,680	305,272	418,315	150,636	269,812	36,259	5,599	74,918	145,837	800
P.U.C. Assessment	19	1,320,161	619,815	139,277	149,574	96,636	104,293	96,504	15,578	38,021	60,199	264
O.C.A. and S.B.A. Assessments	19	363,107	170,479	38,308	41,140	26,579	28,685	26,543	4,285	10,457	16,558	73
Local Property Taxes	18	484,997	228,969	55,532	76,096	27,402	49,082	6,596	1,018	13,628	26,529	145
Public Utility Realty Taxes	18	2,631,953	1,242,544	301,359	412,953	148,705	266,354	35,795	5,527	73,958	143,968	790
Total Taxes, Other Than Income		9,779,957	4,434,594	1,149,772	1,243,373	712,321	835,526	529,073	98,408	290,802	483,785	2,303
INCOME TAXES												
Federal Income Taxes	18	16,509,800	7,794,276	1,890,372	2,590,388	932,804	1,670,792	224,533	34,671	463,925	903,086	4,953
State Income Taxes	18	9,715,900	4,586,876	1,112,471	1,524,425	548,948	983,249	132,136	20,403	273,017	531,460	2,915
Deferred Taxes	18	18,012,200	8,503,559	2,062,397	2,826,114	1,017,689	1,822,835	244,966	37,826	506,143	985,267	5,404
ITC-Amortized	18	145,998-	68,924-	16,717-	22,907-	8,249-	14,775-	1,986-	307-	4,103-	7,986-	44-
Total Income Taxes		44,091,902	20,815,787	5,048,523	6,918,020	2,491,192	4,462,101	599,649	92,593	1,238,982	2,411,827	13,228

PENNSYLVANIA SUBURBAN WATER COMPANY

COST OF SERVICE AS OF JUNE 30, 2004, AT REVENUE LEVEL PROPOSED UNDER SUPPLEMENT NO.49 TO TARIFF WATER-PA. P.U.C. NO. 1,
ALLOCATED TO COST FUNCTIONS

ACCOUNT (1)	FACTOR REF (2)	COST OF SERVICE (3)	BASE (4)	---EXTRA CAPACITY---		CUSTOMER FACILITIES		CUSTOMER ACCOUNTING BILLING & COLLECTING (9)	METER READING (10)	-----FIRE SERVICE-----		
				MAX DAY (5)	MAX HOUR (6)	METERS (7)	SERVICES (8)			PRIVATE FIRE (11)	PUBLIC FIRE (12)	RESIDENTIAL FIRE (13)
Utility Operating Income Available for Return	18	90,715,512	42,826,792	10,386,926	14,233,264	5,125,426	9,180,410	1,233,731	190,503	2,549,106	4,962,139	27,215
Total Cost of Service		272,252,054	127,826,368	28,711,499	30,845,306	19,935,073	21,517,052	19,907,522	3,199,796	7,849,531	12,404,183	55,724
Less: Other Water Revenues	19	1,198,016-	562,467-	126,391-	135,735-	87,695-	94,643-	87,575-	14,137-	34,503-	54,630-	240-
Revenues from Contract Sales	19	3,945,524-	1,852,424-	416,253-	447,028-	288,812-	311,696-	288,418-	46,557-	113,631-	179,916-	789-
Unrecovered Public Fire	20	7,253,648-									7,253,648-	
Reallocate Unrecovered Public Fire	21	7,253,648						7,253,648				
Total Cost of Service Related to Sales of Water		267,108,514	125,411,477	28,168,855	30,262,543	26,812,214	21,110,713	19,531,529	3,139,102	7,701,397	4,915,989	54,695

PENNSYLVANIA SUBURBAN WATER COMPANY

FACTOR 18. ORIGINAL COST MEASURE OF VALUE RATE BASE ALLOCATED TO COST FUNCTIONS
ALLOCATED TO COST FUNCTIONS

ACCOUNT (1)	FACTOR REF (2)	COST OF SERVICE (3)	BASE (4)	---EXTRA MAX DAY (5)	CAPACITY-- MAX HOUR (6)	CUSTOMER FACILITIES		CUSTOMER ACCOUNTING BILLING & COLLECTING (9)	METER READING (10)	-----FIRE SERVICE-----		
						METERS (7)	SERVICES (8)			PRIVATE FIRE (11)	PUBLIC FIRE (12)	RESIDENTIAL FIRE (13)
DEPRECIABLE PLANT, CONT.												
311												
Electric Pumping Equipment												
Pumping Equipment	6	32,192,762	21,829,912	8,144,769	1,619,296					131,990	463,576	3,219
SCADA Equipment	6	851,946	577,705	215,542	42,853					3,493	12,268	85
320												
Purification System												
Structures	2	48,770,932	34,593,222	13,933,855						43,894	199,961	
Wells & Boosters	2	961,219	681,793	274,620						865	3,941	
Equipment	2	19,417,873	13,773,098	5,547,686						17,476	79,613	
Computers	2	1,480,432	1,050,071	422,959						1,332	6,070	
Painting	2	24,264	17,211	6,932						22	99	
Filter Media	2	624,730	443,122	178,485						562	2,561	
330												
Distr. Reserviors & Standpipes												
Tanks	5	24,585,540	11,454,403		11,537,994					371,242	1,212,067	9,834
Tank Painting	5	3,009,697	1,402,218		1,412,451					45,446	148,378	1,204
331												
Mains and Accessories												
12 Inch and Over	3	171,417,483	115,398,249	45,991,311						2,331,278	7,628,078	68,567
Under 12 Inch	4	3,207,824,481	145,410,699		146,437,203					6,736,432	22,005,678	192,469
333												
Services	9	10,757,384					103,681,155			3,894,229		
334												
Meters												
Conventional	8	982,505				803,198				179,307		
Remote	8	64,744,618				52,928,725				11,815,893		
335												
Fire Hydrants	7	24,361,710								1,851,490	22,510,220	
340												
Office Furniture and Equipment												
Furniture	15	1,117,861	380,632	129,001	60,588	107,874	49,186	275,217	42,814	34,430	38,007	112
Mechanical Equipment	15	321,488	109,466	37,100	17,425	31,024	14,145	79,150	12,313	9,902	10,931	32
Computers	15	12,460,894	4,242,936	1,437,987	675,380	1,202,476	548,279	3,067,872	477,252	383,796	423,670	1,246
341												
Transportation Equipment												
Vehicles	15	129,923	44,238	14,993	7,042	12,538	5,717	31,987	4,976	4,002	4,417	13
Other	15	496,037	168,900	57,243	26,885	47,868	21,826	122,124	18,998	15,278	16,865	50
342												
Stores Equipment	15	44,326	15,095	5,115	2,402	4,277	1,950	10,913	1,698	1,365	1,507	4
343.1												
Shop Equipment	15	315,776	107,522	36,441	17,115	30,472	13,894	77,744	12,094	9,726	10,736	32
343.2												
Tools & Work Equipment - General	15	4,509,750	1,535,571	520,425	244,428	435,191	198,429	1,110,300	172,723	138,900	153,332	451
344												
Laboratory Equipment												
Conventional	2	542,282	384,641	154,930						488	2,223	
Electronic	2	901,454	639,402	257,545						811	3,696	

PENNSYLVANIA SUBURBAN WATER COMPANY

FACTOR 18. ORIGINAL COST MEASURE OF VALUE RATE BASE ALLOCATED TO COST FUNCTIONS
ALLOCATED TO COST FUNCTIONS

ACCOUNT (1)	FACTOR REF (2)	COST OF SERVICE (3)	BASE (4)	---EXTRA CAPACITY---		CUSTOMER FACILITIES		CUSTOMER ACCOUNTING		-----FIRE SERVICE-----			
				MAX DAY (5)	MAX HOUR (6)	METERS (7)	SERVICES (8)	BILLING & COLLECTING (9)	METER READING (10)	PRIVATE FIRE (11)	PUBLIC FIRE (12)	RESIDENTIAL FIRE (13)	
DEPRECIABLE PLANT, CONT.													
345		Tools & Work Equip.-Construction	15 2,843,501	968,212	328,140	154,118	274,398	125,114	700,070	108,906	87,580	96,679	284
346		Communication Equipment	15 1,515,956	516,183	174,941	82,165	146,290	66,702	373,228	58,061	46,691	51,543	152
347		Miscellaneous Equipment	15 178,062	60,630	20,548	9,651	17,183	7,835	43,839	6,820	5,484	6,054	18
413		New Acquisition Adjs.	17 1,449,089	680,346	167,370	230,550	81,874	148,387	16,520	2,608	41,009	79,990	435
		Total Depreciable Plant	1,014,147,610	472,306,337	116349,103	163594,646	57,926,510	105704,768	10,509,262	1,634,907	29,033,655	56,804,766	283,656
		Total Utility Plant	1,039,349,597	488,026,232	120069,101	165342,600	58,716,029	106472,599	11,817,117	1,838,504	29,376,054	57,405,013	286,348
OTHER RATE BASE ELEMENTS													
		Materials and Supplies	17 2,776,063	1,303,360	320,635	441,672	156,848	284,269	31,647	4,997	78,563	153,239	833
		Cash Working Capital - Expenses	15 9,462,500	3,221,980	1,091,973	512,868	913,131	416,350	2,329,668	362,414	291,445	321,725	946
		Cash Working Capital - Taxes	17 2,569,400	1,206,332	296,766	408,792	145,171	263,107	29,291	4,625	72,714	141,831	771
		Cash Working Capital - P/R Tax	16 337,000	133,147	45,158	21,164	38,216	17,086	47,686	9,672	11,627	13,210	34
		Cash Working Capital - Pfd Div	17										
		Unamortized PECO CTC Prepay Bal.	1 7,565,798	7,512,080							9,836	43,882	
		Mercer & Pulaski Acq. Adj. Bal.	17 164,448	77,208	18,994	26,164	9,291	16,839	1,875	296	4,654	9,078	49
		Northumberland & Excelcior Adj.	17 208,356	97,824	24,065	33,149	11,772	21,336	2,375	375	5,896	11,501	63
		Hubbard Contract Adjustment	2 646,232-	458,372-	184,628-						582-	2,650-	
		Service Line & Customer Deposits	17 23,033-	10,814-	2,660-	3,665-	1,301-	2,359-	263-	41-	652-	1,271-	7-
		Deferred Income Taxes	17 67,707,009-	31,788,440-	7,820,160-	10,772,185-	3,825,446-	6,933,198-	771,860-	121,873-	1,916,108-	3,737,427-	20,312-
		Accrued Interest	17 2,069,300-	971,537-	239,004-	329,226-	116,915-	211,896-	23,590-	3,725-	58,561-	114,225-	621-
		PennVest D.O.C.	17 454,580-	213,425-	52,504-	72,324-	25,684-	46,549-	5,182-	818-	12,865-	25,093-	136-
		Total Other Rate Base Elements	47,816,589-	19,890,657-	6,501,365-	9,733,591-	2,694,917-	6,175,015-	1,641,647	255,922	1,514,033-	3,186,200-	18,380-
		Total Original Cost Measure of Value	991,533,008	468,135,575	113567,736	155609,009	56,021,112	100297,584	13,458,764	2,094,426	27,862,021	54,218,813	267,968