

**BEFORE THE CORPORATION COMMISSION OF THE STATE OF OKLAHOMA**

IN THE MATTER OF THE APPLICATION OF )  
OKLAHOMA GAS AND ELECTRIC COMPANY )  
FOR AN ORDER OF THE COMMISSION )  
AUTHORIZING APPLICANT TO MODIFY ITS )  
RATES, CHARGES, AND TARIFFS FOR RETAIL )  
ELECTRIC SERVICE IN OKLAHOMA )

CAUSE NO. PUD 202100164



Direct Testimony

of

Gwin Cash

on behalf of

Oklahoma Gas and Electric Company

December 30, 2021

Gwin Cash  
*Direct Testimony*

1    **Q.    Please state your name, position, by whom you are employed, and your business**  
2       **address.**

3    A.    My name is Gwin Cash. I am the Manager of Cost of Service and Rate Administration for  
4       Oklahoma Gas and Electric Company (“OG&E” or “Company”). My business address is  
5       321 N. Harvey, Oklahoma City, Oklahoma, 73102.

7    **Q.    Please summarize your professional qualifications and educational background.**

8    A.    I have worked for OG&E in various capacities for 20 years. Most recently I joined the  
9       Company’s regulatory department in January 2015 as the Rate Administration Manager  
10      and in July of 2017 I assumed additional responsibilities as the manager of Cost of Service.  
11      My Cost of Service responsibilities include oversight of the department’s responsibility for  
12      operating and maintaining the Cost of Service model. My Rate Administration  
13      responsibilities include maintaining OG&E’s tariffs on file with the regulatory  
14      commissions and ensuring consistent application of these tariffs in the manner which they  
15      are intended. Additional duties include computing rider factors and monthly retail revenue  
16      reporting. Prior to joining OG&E’s regulatory department I worked as a Senior Business  
17      Analyst in OG&E’s Sales and Customer Support department and as a Workforce Analyst  
18      in OG&E’s Customer Service department. I received a Bachelor of Science in Applied  
19      Mathematics with a Specialization in Computing from the University of California, Los  
20      Angeles in 1999.

22   **Q.    Have you previously testified before the Oklahoma Corporation Commission**  
23       **(“OCC”) or any other regulatory commission?**

24   A.    Yes. I have testified before the OCC in the following Causes:

- 25           • PUD 202100072
- 26           • PUD 202100021,
- 27           • PUD 201800140,
- 28           • PUD 201700496,
- 29           • and PUD 201500273.

1 I have also testified before the Arkansas Public Service Commission in the  
2 following Dockets:

- 3 • 19-017-TF,
- 4 • 19-013-U
- 5 • 18-046-FR,
- 6 • and 16-057-U.

7  
8 **Q. What is the purpose of your testimony?**

9 A. The purpose of my direct testimony is to support the Company's cost-of-service study  
10 ("COSS") and the resulting update to the Oklahoma retail jurisdictional and class  
11 allocations.

12  
13 **I. COST OF SERVICE STUDY RESULTS**

14 **Q. Please provide a brief summary of the results of the update to the Oklahoma retail**  
15 **jurisdictional and class revenue requirements?**

16 A. The COSS reveals that Oklahoma retail revenues are deficient by \$163.5 million. The  
17 impact to the class revenue requirements are as follows: Residential revenues are deficient  
18 by \$84.3 million; General Service revenues are deficient by \$13.9 million; Power & Light  
19 revenues are deficient by \$27.8 million, Large Power & Light revenues are deficient by  
20 \$16.4 million; and all other classes are deficient by \$21.2 million.

21  
22 **Q. Please provide a brief summary of the results of the update to the Oklahoma retail**  
23 **jurisdictional allocators as computed in the COSS.**

24 A. The Production Demand allocator is 91.39% and the Transmission Demand and  
25 Transmission Demand SPP allocators are 79.60% and 91.19%, respectively.

26  
27 **Q. How do these results compare with the final jurisdictional allocators from the**  
28 **Company's last general rate case, Cause No. PUD 201800140?**

29 A. The allocators have remained relatively flat. The current production allocator is 0.08%  
30 higher than the final production allocator from Cause No. PUD 201800140 filing which  
31 was 91.31%. The current Transmission Demand and Transmission Demand SPP allocators

1 are 0.08% and 0.16% higher than the final transmission allocators from the 18-140 filing  
2 which were 79.52% and 91.03%. Table 1 shows a side-by-side comparison of the results  
3 of the two cases.

**Table 1**

	PUD 202100164	PUD 201800140	Difference
Production Demand	91.39%	91.31%	0.08%
Transmission Demand	79.60%	79.52%	0.08%
Transmission Demand SPP	91.19%	91.03%	0.16%

## II. COST OF SERVICE STUDIES

### General Explanation of a Cost of Service Study

4 Q. **What is a cost of service study?**

5 A. A COSS is used to determine the revenue requirement to be recovered from a utility  
6 company's jurisdictional and individual customer classes. In the COSS, historical *pro*  
7 *forma* test year embedded costs are either allocated or directly assigned to the jurisdiction  
8 and customer classes.

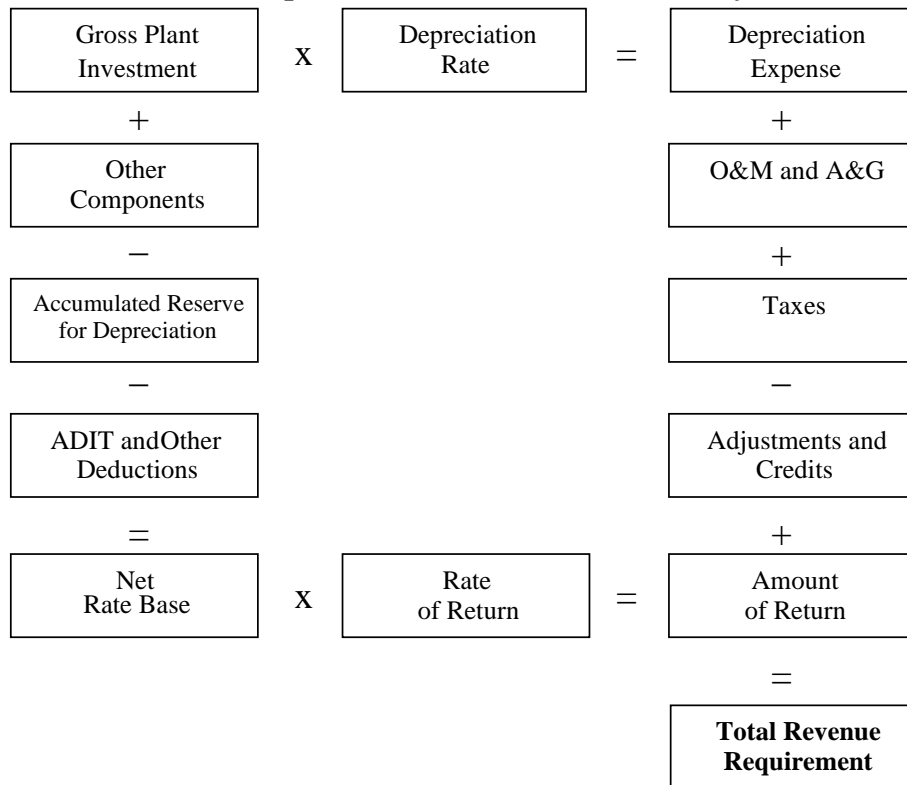
9  
10 Q. **What sources are used for the historical costs in a cost of service study?**

11 A. Cost of service studies rely on the utility company's historic, or embedded, statements of  
12 revenue, number of customers, energy sales, accounting reports, engineering records,  
13 customer billing records, and load survey data. Investor-owned electric utilities in  
14 Oklahoma are required by the Federal Energy Regulatory Commission ("FERC") to keep  
15 their accounting records according to the "Uniform System of Accounts for Public Utilities  
16 and Licensees" ("USOA"), CFR Title 18, Subchapter C, Part 101. The OCC adopted the  
17 USOA requirements as well (see OAC 165:35-27-4(a)). The USOA sets the guidelines for  
18 recording assets, liabilities, income, and expenses into various accounts. Embedded costs  
19 are used as the basis for FERC Form 1 annual reports prescribed by FERC.

1 Q. **Please describe how a cost of service study is structured.**

2 A. The cost of service study is designed to determine a revenue requirement. The components  
3 of the revenue requirement within the COSS model are summarized in Chart 1.

**Chart 1**  
**Components of a Cost of Service Study**



4 Q. **What type of costs and cost components are included in the cost of service studies you**  
5 **are sponsoring?**

6 A. Fixed costs and variable costs are two types of broad cost categories included in cost of  
7 service studies. Fixed costs are costs that do not vary with output, remain constant in the  
8 short run and include capital costs, return, depreciation expense, income taxes, property  
9 taxes, and some operation and maintenance (“O&M”) expense. Variable costs are costs  
10 that vary with output which include fuel costs, purchased power and some O&M expense.  
11 Additionally, there are sub-components of the fixed and variable costs. These  
12 include directly assigned costs that are incurred to serve a particular customer or class of  
13 service (street lighting, dedicated substation circuits, etc.) and what are called joint or

1 common costs. Joint or common costs are those costs that are shared by all customers  
2 because they are incurred to produce jointly beneficial products. These costs are allocated  
3 either on the basis of the overall ratios of those costs that have been directly assigned, or  
4 by a series of allocators that best reflect “cost causation” principles, or by a detailed  
5 analysis of each account to determine who receives the benefits.  
6

7 **Q. Please define cost causation.**

8 A. Cost causation is the determination as to what, or who, is causing costs to be incurred by  
9 the utility in providing service to its customers. An examples of cost causation is when a  
10 customer request service at a new location. This request could cause the Company to incur  
11 costs such as investment in line transformation, a service drop, metering facilities. It will  
12 establish a commitment on the part of the Company to provide, among other things,  
13 monthly billings and customer service.  
14

15 **Q. Please generally describe the physical characteristics of the electric industry that**  
16 **cause costs to be incurred.**

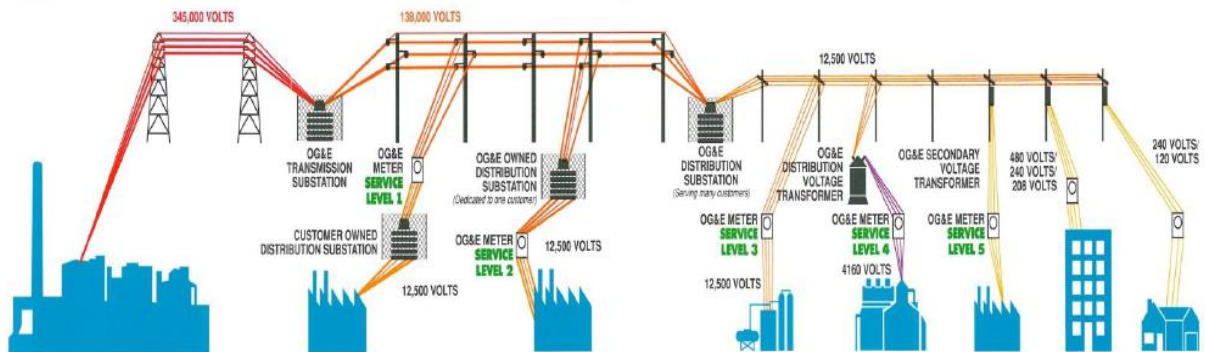
17 A. Generation, transmission, and distribution are the three main components of a vertically  
18 integrated utility.<sup>1</sup> Chart 2 illustrates how power flows from the power plant to ultimate  
19 consumers on the OG&E system.

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<sup>1</sup> NARUC Manual, page 4

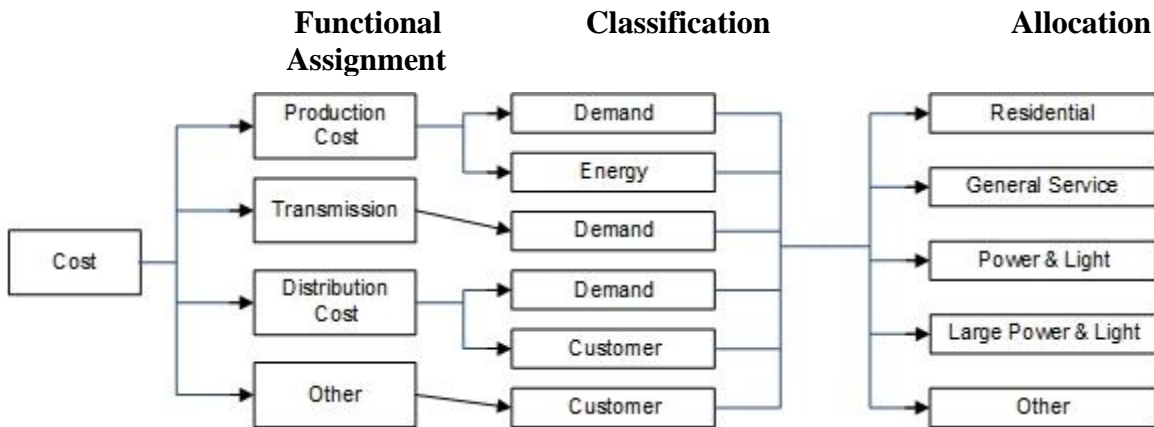
Chart 2

## Typical OG&E Transmission and Distribution System



- 1 Q. How is this information separated to determine the cost of serving the various classes
- 2 of utility customers?
- 3 A. Costs are allocated to customer classes using a three-step method including
- 4 functionalization, classification, and allocation. This methodology is shown in Chart 3.

Chart 3



### Functionalization Process

- 5 Q. Please describe the functionalization process?
- 6 A. Once the relevant data is gathered, the costs are separated by function. Typically, functions
- 7 in a fully integrated electric utility are:
- 8 1. Production

2. Transmission
3. Distribution
4. Customer Service
5. Administrative and General (“A&G”)

The production function captures the costs associated with power generating facilities. The transmission function captures the costs associated with the high voltage lines and substations that deliver power from generators to the distribution system, other utilities, and some large customers. The distribution function includes facilities and costs associated with distribution substations, primary and secondary lines, transformers, service drops, and meters that connect most customers to the utility network. The customer service function encompasses the services and costs associated with providing billing, collection, customer information, and related services. The A&G function is a general service category that captures the costs associated with management of the business and general services such as staffing, accounting, legal, regulatory, communications, general purpose buildings, maintenance of such facilities, and other costs that may not be directly assignable to the other functions.

#### Classification Process

**Q. Please describe the classification process.**

**A.** Classification is a refinement of functionalized costs. Functionalized costs are further separated into three classifications:

1. Demand costs – costs associated with the maximum rate of energy used by the customer
2. Energy costs – cost that vary with the amount of energy used by customers
3. Customer costs – costs related to billing, metering, payment collections, and customer service

Typical cost classifications used in cost studies are shown in Chart 4.



**Chart 4**

<b>FUNCTION</b>	<b>CLASSIFICATION</b>
Production	Demand, Energy
Transmission	Demand
Distribution	Demand, Customer
Customer Service	Customer

As seen above, production plant costs, such as depreciation expense and return on investment, are generally considered to be demand costs. Fuel costs and certain production O&M expenses are energy costs because they vary with the quantity of energy produced. Transmission costs are typically considered as demand because they are mainly fixed and do not vary with energy usage. Distribution system costs are driven by the need to deliver the diversified peak demand of customers served from each facility and by the number of customers served. Distribution costs for substations, primary lines and transformers tend to vary with the size of the load served. Customer service costs vary with the number of customers and the complexity of meeting their needs. The classification process provides a basis on which to allocate different categories of costs (demand, energy, or customer) to the Company's jurisdictions, and ultimately to the customer classes through the allocation process.

Allocation Processes

**Q. Please describe the allocation processes.**

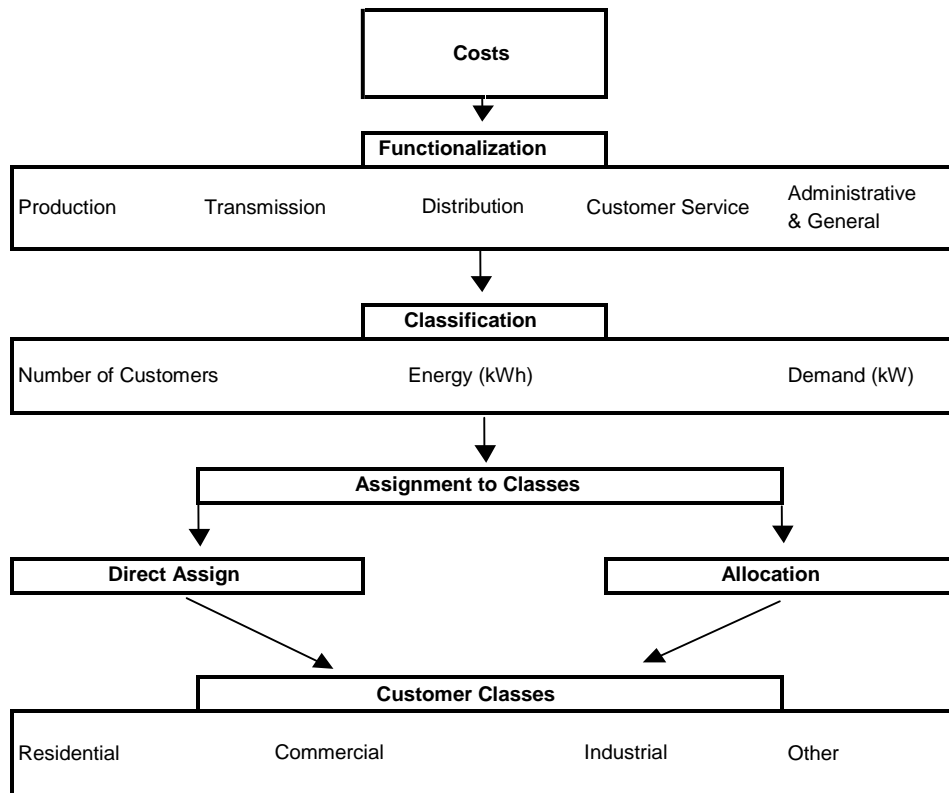
A. After costs are functionalized and classified, they are either allocated or directly assigned among jurisdictions. Within the Oklahoma retail jurisdiction, the functionally classified costs are then further allocated or assigned among classes of customers, based on cost causation. OG&E's customer classes have been determined and grouped according to the nature of service provided and the load characteristics. OG&E's major customer classes are generally grouped as Residential, General Service, Power and Light, Large Power and Light, and Other.

The objective of this process is to assign costs in a reasonable and understandable way. As discussed earlier, some costs are directly assigned and others are allocated among

the classes; directly assigned costs are costs that can be readily identified as belonging to a jurisdiction, a single class or even a single customer. For example, customer meters are directly assigned to their respective customer class. Similarly, the costs associated with the poles and luminaries used for street lighting in Oklahoma are directly assigned to the Oklahoma jurisdiction and then to the street lighting class in that jurisdiction. Most costs, however, are attributable to more than one type of customer. These joint costs must be allocated to jurisdictions and then to the Oklahoma jurisdictional retail customer classes by an allocation methodology that recognizes each class's contribution to the cost driver that ultimately determines the overall level of cost for each sub-category of utility service. Chart 5 is a flowchart that provides an overview of the steps used to assign/allocate costs to jurisdictional customer classes.

**Chart 5**

**Cost Allocation Flowchart**



The process described above is applied to each cost category in the cost of service study.

1 Q. **What is the result of the functionalization, classification, and assignment/allocation**  
2 **process?**

3 A. When the process is completed and all of the costs are allocated to the jurisdictions and  
4 customer classes, the result is a fully allocated embedded cost of service study that  
5 establishes the cost responsibility for each jurisdiction and customer class of service.  
6

### III. OG&E'S JURISDICTIONAL COST OF SERVICE STUDY

7 Q. **Did OG&E submit a jurisdictional cost of service study as described in the**  
8 **Commission's minimum filing requirements?**

9 A. Yes. The Company submitted its COSS.  
10

11 Q. **What does the Company do to ensure that the fully allocated costs are reasonable?**

12 A. The Company uses the following criteria to judge the appropriateness of its allocation  
13 methodology:

- 14 1. The method should reflect the planning and operating characteristics of the  
15 utility's system.
- 16 2. The method should recognize individual customer class characteristics such as  
17 energy use, peak demand on the relevant portion of the system, service diversity  
18 characteristics, or the number of customers.
- 19 3. The method should produce reliable results that are relatively stable from year-  
20 to-year.
- 21 4. Customers who benefit from the use of the system should also bear appropriate  
22 cost responsibility for the system.  
23

24 Q. **Briefly describe the contents of Section K.**

25 A. Section K of the MFR package sets forth the Company's jurisdictional Cost of Service.  
26 The schedules in Section K and supporting work papers in the supplemental package  
27 provide the support for those calculations.

28 Schedule K-1 shows the pro forma adjusted Total Company cost of service.

29 Each of the supporting schedules details, by account, the associated allocation basis for the  
30 amounts shown on Schedule K-1. Chart 6 lists such supporting schedules.

**Chart 6**

<b>Schedule Name</b>	<b>Description</b>
Schedule K-2.1	Pro forma electric revenues based on current rates
Schedule K-2.2	Operation and maintenance expenses
Schedule K-2.3	Depreciation expense
Schedule K-2.4	Taxes other than income
Schedule K-2.5	Plant in service
Schedule K-2.6	Accumulated depreciation
Schedule K-2.7	Construction work in progress
Schedule K-2.8	Plant held for future use
Schedule K-2.9	Working capital
Schedule K-2.10	Other rate base adjustments

**IV. OG&E's CLASS COST OF SERVICE STUDY**

1 Q. **Please describe the Section L as it relates to the class cost of service study you are**  
2 **sponsoring.**

3 A. Section L identifies the revenue, revenue deductions, income taxes, rate base components  
4 and return on rate base for each Oklahoma customer class, allocating those costs in a  
5 manner consistent with OG&E's previous filings before the Commission.  
6

7 Q. **Please generally describe the contents and organization of Section L.**

8 A. Schedule L-1 is the Rate Design Cost of Service for the *pro forma* test year. It shows the  
9 Oklahoma jurisdictional pro forma adjusted cost of service by customer class under rates  
10 placed in effect as of October 1, 2019. Revenue, revenue deductions and rate base are  
11 organized in the same manner as on Schedule K-1. Line 31 shows the percentage rates of  
12 return earned from each class under current rates.

13 Supporting Schedules, L-2.1 through L-2.10, show in detail the revenue, allocation  
14 of costs and rate base components to each Oklahoma customer class. These schedules  
15 provide the same information as the schedules in Section K, except that the information is  
16 provided by Oklahoma customer class.

1 Schedule L-3 presents the change in sales revenue for each class if a rate of return  
2 on rate base was to be applied equally to all classes of service. Line 13 is the total class  
3 revenue requirement needed to achieve the Company's proposed return on rate base. Line  
4 14 is the pro forma class revenue based on existing rates for the test year. Line 15 is the  
5 difference between the class revenue requirement and the current tariff revenue. This  
6 deficiency or excess represents the class change needed in current tariffs for rate design.  
7 Line 16 shows the class revenues received from current tariffs.

8 Schedule L-4 indicates the percent increases necessary to recover the revenue  
9 deficiency through sales revenue for each class. Line 12 indicates the return on rate base  
10 by class of service adjusted for the deficiency at these levels of revenue.  
11

12 **Q. How are the results of the class cost of service study used in this proceeding?**

13 **A.** The results of the class cost of service submitted in this proceeding are used for two  
14 reasons.

- 15 1. Provide embedded cost information that is used as a tool in developing the pricing  
16 structures for each customer class; and
- 17 2. Provide information with which present and proposed relative rates of return by  
18 customer class can be compared and reviewed.  
19

#### V. CHANGES TO THE COST OF SERVICE STUDY

20 **Q. Are there any updates or changes to the COSS model as filed in this Cause when**  
21 **compared to the Company's COSS in the last general rate filing, Cause No. PUD**  
22 **201800140?**

23 **A.** Yes, in Cause No. PUD 201800140, the Company proposed its Distribution FERC account  
24 allocation to reflect dedicated circuits to service level 2 customers. While OG&E continues  
25 to study the issue, in the current COSS, distribution circuit cost is being allocated entirely  
26 to service level 3, 4, and 5 customers as it was in rate filings prior to Cause No. PUD  
27 201800140.

## VI. 1MW COSS

1 Q. **As a result of the final order from Cause No. PUD 201800140, OG&E was required,**  
2 **in its next base rate case, to prepare a COSS with a separate class for customers**  
3 **served pursuant to 17 O.S. § 158.25(E) ("1 MW Exception") for new load being**  
4 **initially served by OG&E after January 1, 2014. Has this study been performed?**

5 A. Yes, this study has been performed. A separate 1MW COSS has been provided as part of  
6 my workpapers and it includes additional columns for these 1MW exception customers as  
7 well as additional columns for comparable customers inside OGE's territory.  
8

9 Q. **Please address any additional requirements, regarding the 1MW customers.**

10 A. In addition, the Company affirms that all new load achieved, pursuant to the 1 MW  
11 Exception have complied with the Company's filed policies.  
12

## VII. CONCLUSION

13 Q. **Would you please summarize your testimony regarding the cost of service studies you**  
14 **are supporting?**

15 A. The jurisdictional cost of service study identifies the embedded cost of service for the  
16 Oklahoma retail, Arkansas retail and FERC jurisdictions. This embedded cost of service  
17 study is based upon sound cost allocation principles, reflects all of the test year  
18 adjustments, and establishes the cost responsibility for the provision of electric service to  
19 each jurisdiction.

20 The class cost of service study quantifies the embedded cost of service for each  
21 Oklahoma retail jurisdictional class. In addition, the class cost of service study provides  
22 information necessary to develop cost based rates for OG&E's retail customers.  
23

24 Q. **What is your recommendation to the Commission?**

25 A. I recommend the Commission accept the Company's filed COSS.  
26

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

28 A. Yes.