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	**)**	**CAUSE NO. PUD 202300087**
AUTHORIZING APPLICANT TO MODIFY ITS	**)**	
RATES, CHARGES, AND TARIFFS FOR RETAIL	**)**	
ELECTRIC SERVICE IN OKLAHOMA	**)**	

RESPONSIVE TESTIMONY AND EXHIBITS

FOR COST OF SERVICE AND

RATE DESIGN

OF

DAVID W. HEDRICK

ON BEHALF OF

THE OKLAHOMA ASSOCIATION OF ELECTRIC COOPERATIVES

May 3, 2024

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is David W. Hedrick and my business address is 5555 North Grand Boulevard, Oklahoma City, Oklahoma 73112-5507.

Q. By whom are you employed and what is your position?

A. I am employed by C. H. Guernsey & Company, Engineers, Architects and Consultants. I serve as Executive Vice President and Manager of the Analytical Services Group.

Q. Please summarize your educational and professional background.

A. I have earned a Bachelor of Science degree from the University of Central Oklahoma and an M.B.A. degree from Oklahoma City University. I have been employed by C. H. Guernsey & Company since 1981. During my time at Guernsey, I have provided consulting services to electric cooperatives and municipal electric utilities in the areas including but not limited to: revenue requirement, cost of service, rate design, line extension, mergers and acquisition, distributed generation, net metering, pole attachment rates and service boundary issues. Please refer to Exhibit DWH-1 for a summary of my experience.

Q. Have you previously testified before regulatory commissions?

A. Yes. I have testified before the Arizona Corporation Commission, the Public Utility Commission of Texas, the Oklahoma Corporation Commission, the Arkansas Public Service Commission and the Wyoming Public Service Commission.

Q. Have your qualifications as an expert been accepted by the Oklahoma Corporation Commission?

A. Yes, they have.

Q. On whose behalf are you testifying in this proceeding?

A. I am providing testimony on behalf of The Oklahoma Association of Electric Cooperatives (OAEC). OAEC represents the position of its 27 electric distribution cooperative members and its three generation and transmission cooperative members serving parts of rural Oklahoma.

Q. What is the Oklahoma Association of Electric Cooperatives?

A. It is a non-profit statewide association of Oklahoma's rural electric cooperatives operating to provide services which would not be economical or practical for each individual cooperative to perform alone. These include improving communications between the cooperatives themselves and between the cooperatives and other utilities, explaining to local communities and to the entire economic community the value of electric cooperatives, and assisting with the maintenance of the orderly development of retail electric service throughout rural Oklahoma.

II. PURPOSE FOR INTERVENTION AND SUMMARY OF TESTIMONY

Q. Why has OAEC intervened in this proceeding?

A. OG&E serves an estimated 50 customers outside of its service territory by virtue of the exception to the Retail Electric Service Certified Territory Act which allows a retail electric provider to extend its service outside of its certified territory to customers with loads in excess of 1 MW. Service to these customers outside of OG&E's certified territory is in direct competition with the electric cooperatives in whose territory most, if not all of, these customers are located and otherwise would have an obligation to serve. OAEC and its member cooperatives have become increasingly concerned regarding OG&E's practices regarding the rates charged and the free line extension amounts provided by OG&E to these customers. OAEC intervened in this filing to: 1) determine whether OG&E is applying rates to these customers that are less than the cost of serving these customers thereby subsidizing these customers, 2) determine whether OG&E is applying its extension formula correctly, 3) determine the extent to which OG&E is not complying with HB2845[1], 4) determine how OG&E is proposing to resolve the issues and 5) provide analysis of OG&E's rate filing and provide recommendations to the OCC to resolve the issues related to the 1 MW Outside customers.

Q. Please summarize your testimony?

A. My testimony includes discussion, analysis and supporting evidence that reflects the following:

1. The cost of service analysis submitted by OG&E for 1 MW customers outside its service territory clearly demonstrates that significant subsidies are being provided to these customers. However, in their filings, OG&E has not proposed a solution to eliminate the subsidies for existing or future 1 MW customers outside its service territory. Rather, they propose to continue the enormous subsidy to this rate class.

2. Recently passed legislation, HB2845, mandates the elimination of subsidies in rates for customers being served outside a utility's service territory by virtue of the 1 MW exception. The law clearly applies to all customers being served. Proposed OCC rules apply this mandate to future customers. The

[1] Codified as 17 O.S. §158.25 Amended by Laws 2023, HB 2845, c. 95, § 1, eff. November 1, 2023.

OCC has the obligation to require the provisions of HB2845 be applied to existing 1 MW customers through this rate case.

3. While OG&E's cost of service for 1 MW customers shows that significant subsidies exist, the cost of service study understates the costs of providing service to 1 MW customers. A primary reason for the understated costs is OG&E's application of a flawed approach to the direct allocation of radial transmission plant required to provide service to the 1 MW customers outside their service territory. The evidence provided by OG&E clearly identifies the transmission facilities required to provide service to the 1 MW Outside customers yet OG&E intentionally created a method to shift the allocation of costs away from the 1 MW Outside customers to be recovered by customers in other rate classes. My analysis shows that an appropriate direct assignment of radial transmission plant would reflect subsidies for the 1 MW outside customers that are significantly more than reflected in OG&E's originally proposed cost of service.

4. The line extension allowable formula utilized by OG&E is not based on sound rate-making principles, does not reflect the cost of providing service and results in unjustifiable investment in electric facilities by OG&E to serve customers outside its service territory. These unjustifiable investments result in zero or greatly reduced required contributions from the new customer. These free line extensions to the customer coupled with a rate that is significantly below cost creates an unfair competitive advantage for OG&E versus the Cooperatives.

My testimony provides a review of OG&E's allowable investment calculation and I provide a revised formula which calculates an allowable investment based on the total costs of providing service that can be supported by revenue from base rates.

Q. What were the requirements of the Order in OG&E's last rate case, Cause No. PUD 202100164, with regard to the 1 MW outside customers?

A. Item 22 of the order states:

"The Company shall continue to evaluate 1 MW customers, at least those initially being served by OG&E after January 1, 2014, through a separate Cost of Service ("COS") during their next rate case to allow parties to verify the accuracy of the decision by the Company used in this Case to treat the 1 MW customers class's coincident peak as their own customer class.

The Company shall also develop a rate tariff for prospective 1 MW customers and submit such rate tariff with its Compliance Package submittal referenced in Paragraph A.20. The initial pricing shall be the same as LPL-TOU or (PL-TOU). The cost allocation method with respect to this new class will be the same as the cost allocation methods used for other customers.

In addition, within 60 days of the issuance of the Final Order, PUD will initiate and facilitate a meeting between Company and OAEC and both parties' consultants and rate design experts to explore common ground positions and solutions that could potentially resolve disagreements around how 1 MW loads under O.S. § 158.25(E) are treated from a ratemaking perspective. All parties to the case shall be given notice and an opportunity to participate in such meeting."

Q. Has OG&E complied with the provisions of the settlement?

A. OG&E has included an informational cost of service study in this rate case for 1 MW customers served after January 1, 2024. The ordering statement states that this cost of service would be used to verify the accuracy of the Company's (OG&E) decision to treat the 1 MW customer class's coincident peak as their own customer class. The implication of this statement is that OG&E's preference is to allocate costs to this class as if it is its own customer class. However, even though OG&E has prepared a cost of service allocation for the 1 MW customer class, its proposal for rate design entirely ignores the results of the study. The purpose of preparing a cost of service study is to provide the necessary analysis to determine the appropriate revenue requirement and rate design by customer class. The cost of service study component of the rate filing and rate design component of the rate filing are inexorably linked together. Even though the 1 MW cost of service identifies significant revenue deficiencies (subsidies), OG&E does not separate this existing group of customers into a separate rate class for setting rates but continues to leave them embedded in other rate class. This continues, and makes worse, the subsidization of the 1 MW class by all other rate payers.

OG&E did establish a rate for prospective 1 MW customers outside its service territory with initial charges the same as the LPL-TOU rate class in the last rate filing. The term "initial" would reasonably indicate an expectation that the charges in this rate for prospective customers would change based on the cost allocation. The ordering statement indicates that the cost allocation for this new rate class will be the same as for other customers at the close of that rate case. OG&E's cost of service allocation for the existing

1 MW customers provides the most accurate representation of the cost of providing service to both existing 1 MW customers and prospective 1 MW customers. However, once again, OG&E has ignored the results of the cost of service study and has proposed to continue charging the proposed LPL-TOU per unit rate charges in the rate for prospective 1 MW customers. No differentiation in the rate was proposed as a result of the cost of service study results. Again, this continues, and makes worse, the subsidization of the 1 MW class by all other rate payers.

The PUD did convene a meeting within 60 days of the conclusion of the last rate filing between OG&E, OAEC and their respective consultants and experts. Discussion occurred at the meeting regarding the issues and various allocation methods. However, there were no follow up meetings nor were there any proposals or alternatives provided by OG&E to review and discuss.

All of the ordering statements regarding the 1 MW outside customers were focused on resolving the issues regarding subsidization surrounding the cost allocation and rate design issues. OG&E has not offered any changes or proposals to resolve the issues.

Q. What are the provisions of HB2845?

A. HB2845 states:

"To achieve the purpose efficient, cost-effective retail electric service without duplication of electric facilities and to avoid unfairly shifting costs to residential customers, retail electric service providers are required to establish and utilize rate tariffs which are specifically applicable to a rate class of customers composed of electric consuming facilities being served in accord with the 1,000 kw exception found in subsection E of this section and located outside the retail electric service provider's certified territory. These tariffs may be for a specific electric consuming facility or for a class of electric consuming facilities taking service under this provision. For retail electric service providers that are rate-regulated by the Commission, the rates supporting this rate class shall be determined in the rate-regulated service provider's most recent rate proceeding. Rates for this rate class shall be designed to recover (i) the costs of extending service to the competitive load of the electric consuming facilities of 1,000 kw or large outside the retail electric service provider's certified territory; and (ii) the allocated share of other costs associated with providing service to the electric consuming facility. *Such tariffs shall be cost-of-service based and shall not subsidize other rate classes or be subsidized by other rate classes*. Unless costs of extending service to such a new load are collected from the customer, those costs shall be included in the cost of service study in the next rate proceeding."

Q. Is OG&E in compliance with HB2845?

A. No. The law requires that OG&E establish separate rate tariffs for customers "being served" in accord with the 1,000 kW exception which shall not be subsidized by other rate classes. OG&E has not proposed a rate tariff for existing customers being served in accord with the 1,000 kW exception. OG&E proposes tariffs which continue vast subsidies of the 1 MW rate class. The cost of service study OG&E has provided for 1 MW customers clearly shows that the rates do not recover the costs of extending service and are being subsidized by other rate classes.

Q. Is this current rate filing the appropriate venue for addressing the requirements in HB2845?

A. Yes. HB2845 requires that rates for the 1,000 kW exception class be determined in the most recent rate proceeding. This rate proceeding is the most recent and provides the opportunity to address all the issues addressed in HB2845. While OG&E has not proposed to address these issues, the OCC can certainly require OG&E to comply.

Q. You mentioned earlier that significant subsidies exist. Does the cost of service study for 1 MW customers prepared by OG&E indicate that significant subsidies exist?

A. Yes. The following table is from the Cost of Service tab in Okla PUD 2023000087 1 MW to File.xlsm file submitted by OG&E.

ACCT(S) / DESCRIPTION	1 MW OUTSIDE S/L-1	1 MW OUTSIDE S/L-2	1 MW OUTSIDE S/L-3	1 MW OUTSIDE S/L-4	1 MW OUTSIDE S/L-5	TOTAL 1 MW OUTSIDE
SUMMARY - EQUALIZED REQUESTED RATE OF RETURN						
RATE BASE	735,502	48,628,355	4,428,635	481,275	1,905,811	56,179,577
RATE OF RETURN ON RATE BASE	7.88000%	7.88000%	7.88000%	7.88000%	7.88000%	7.88000%
RETURN	57,958	3,831,914	348,976	37,924	150,178	4,426,951
O&M (LESS FUEL), INCLUDES REGULATORY ASSET	44,854	3,483,944	293,610	28,845	111,596	3,962,849
INTEREST ON CUSTOMER DEPOSITS	0	2,078	7,367	0	328	9,773
DEPRECIATION EXPENSE	53,434	3,141,674	317,371	33,488	129,077	3,675,044
TAXES OTHER THAN INCOME TAXES	12,295	662,843	64,343	7,330	26,627	773,438
FED INCOME TAX LIABILITY @ CURRENT ROR	6,349	(759,043)	18,869	69,227	16,908	(647,690)
ADDITIONAL FED INCOME TAX LIABILITY	2,444	1,340,360	34,072	(63,474)	5,875	1,319,277
TOTAL OPERATING EXPENSES	119,376	7,871,857	735,632	75,416	290,410	9,092,691
RETURN DEFICIENCY BEFORE INCOME TAXES @ RE	7,612	4,175,186	106,134	(197,719)	18,300	4,109,512
TOTAL PROPOSED OPERATING REVENUE (COST OF	177,333	11,703,771	1,084,608	113,340	440,588	13,519,641
LESS: OTHER OPERATING REVENUE	206	21,528	4,430	188	2,472	28,823
PROPOSED SALES REVENUE @ EQUALIZED ROR	177,127	11,682,243	1,080,179	113,153	438,116	13,490,818
TOTAL PRESENT OPERATING REVENUE	166,741	6,169,376	942,223	374,255	415,539	8,068,135
LESS: OTHER OPERATING REVENUE	206	21,528	4,430	188	2,472	28,823
PRESENT SALES REVENUE	166,535	6,147,848	937,794	374,067	413,067	8,039,311
REVENUE DEFICIENCY	10,592	5,534,395	142,385	(260,914)	25,049	5,451,507
PCT INCREASE TOTAL SALES REVENUE	6.36%	90.02%	15.18%	-69.75%	6.06%	67.81%

TABLE 1 - OG&E 1 MW COST OF SERVICE SUMMARY

Table 1 is a summary of the cost of service study prepared by OG&E for the 1 MW customers served outside their service territory since January 1, 2014. These customers are currently billed on existing OG&E rates. The cost of service identifies the revenues, plant invested, rate base, expenses and revenue deficiency for each of the five service levels of customers served and the total for the group. The vast majority of revenue, over 86%, is concentrated in the Service Level 2 customer group. Service Level 2 customers are the largest of the 1 MW outside customers and must be served via substation delivery.

Table 1 shows a revenue deficiency for each service level of 1 MW customers except service level 4. The most significant and concerning revenue deficiency is for the Service Level 2 (SL-2) class. This class reflects a $5,534,395 revenue deficiency which is 90.02% of total existing sales revenue for that largest service level and over 86% of all 1 MW class sales revenues.

Q. Why is the revenue deficiency for the 1 MW Service Level 2 customers reflected in OG&E's cost of service so concerning?

A The Service Level 2 customers are the largest group of 1 MW Outside customers served by OG&E and are also the largest in size of the 1 MW Outside customers. This group of customers requires significant investment in facilities by OG&E to provide service, typically a dedicated substation and dedicated transmission facilities. This group of customers is also the focus of the majority of competition between OG&E and the cooperatives.

The $5,534,395 revenue deficiency identified by OG&E represents the amount that is under collected from the S/L 2 group of customers on an annual basis. The rates being charged to these customers would need a 90% increase to cover the costs of providing service and provide the appropriate return. OG&E is serving these customers by virtue of the rule that allows competition for service in unincorporated areas. OG&E is providing service using rates that are significantly below the cost of providing service. This is anti-competitive and an unfair business practice with regard to the distribution cooperatives with whom OG&E competes for these loads. The cooperatives have been damaged significantly by not having the opportunity to compete for these loads on a fair and competitive basis.

The significant under recovery of costs (revenue deficiency) from the SL-2 group of customers also has an adverse impact on the other OG&E customers in the LPL-TOU class and to other customer classes. The under recovery of costs from these customers reduces the earnings from the LPL-TOU class requiring other customers in the class to pay higher rates to cover the 1 MW outside customer's losses.

Additionally, the cost allocation methods used by OG&E to assign plant responsibility in previous cost of service studies and in the current cost of service study, do not *directly* assign the actual costs of providing service to these 1 MW customers but instead socialize those costs to other rate classes. Not only is OG&E's treatment of these 1 MW customers anti-competitive and unfair with respect to the electric cooperatives but it is unfair and harmful to its other customers.

Q. How significant is the revenue deficiency that OG&E has identified for the 1 MW SL-2 customers?

A. In relation to the overall revenue requirement of OG&E, the $5.5 million revenue deficiency from the 1 MW Outside SL-2 customers may not seem like that much. However, the customers served in the OG&E 1 MW cost of service are only those that were connected after January 1, 2014, most of which were connected prior to 2019. Assuming this group has been served for just five years, the cumulative revenue deficiency is $27.5 million (5 years X $5.5 million). That means that this group of customers did not pay $27.5 million in billing over the past five years they should have paid while other customers picked up the bill. It should be noted that while OG&E has been allowed to produce a cost of service study which includes only 1 MW customers being served after January 1, 2014, OG&E serves additional customers which began receiving service prior to January 1, 2014. Based on data provided by OG&E in the response to OAEC 1-4 in the 2018 rate filing, Cause No. PUD201800140, OG&E was serving a total of 50 customers in the 1 MW Outside group with total annual kWh sales of 882,830,188. The data provided by OG&E in the current 1 MW Outside cost of service study indicates service to 30 customers with kWh sales of 385,475,015. While the cost of service study that OG&E has provided includes a significant sample, it does not include 20 customers with nearly 500,000,000 of kWh sales . Based on the cost of service study prepared by OG&E for the sample customers included, the reasonable conclusion is that the revenue deficiency for all 1 MW Outside customers served by OG&E is more than double what has been identified. The group of 1 MW customers taking service prior to January 1, 2014 not included in the current cost of service study have been taking service from OG&E for many years, well over ten years on average. The cumulative under recovery from providing these customers service over those years combined with the under recovery for the customers served after January 1, 2014 could reasonably be in excess of $100 million. The under recovery of costs from this group of customers is a very significant issue and unless a change is made, this will continue going forward.

Q. Given the results of the cost of service study that OG&E prepared, did OG&E propose any changes to the rates for existing or future 1 MW customers?

A. No. Even though the 1 MW cost of service study clearly shows that significant subsidies exist, no solutions were proposed. OG&E proposes to continue serving its existing 1 MW Outside customers on the same rate tariffs used to serve other OG&E customers. Additionally, OG&E has not proposed to modify the rate tariff for prospective 1 MW customers to reflect the results of the cost of service study which indicates that a significant increase is needed.

Q. While the results of OG&E's cost of service study for 1 MW customers reflect significant subsidies exist, are the subsidies provided to the 1 MW class even greater than reflected in OG&E's cost of service study?

A. Yes, the subsidies are even greater due the use of a flawed allocation methodology.

Q. What allocation methodology has OG&E utilized that is flawed?

A. OG&E's 1 MW cost of service study includes what the company describes as a "direct assignment of radial transmission facilities". There are numerous flaws with this allocation method. First and foremost, the method used by OG&E is not a direct assignment of actual facilities costs but rather a manufactured calculation to assign average costs which has been labeled as a "direct assignment".

Q. Is a direct assignment of transmission facilities a standard allocation process?

A. Yes. In fact, the NARUC Cost of Service Allocation manual specifically references direct assignment of transmission facilities:

"Radial transmission facilities represent those facilities that are not networked with other transmission facilities but are used to serve specific loads directly. For cost of service purposes, these facilities may be directly assigned to specific customers on the theory that these facilities are not used or useful in providing service to customers not directly connected to them." (NARUC Cost Allocation Manual, page 74).

Q. Has OG&E identified the radial transmission facilities serving the 1 MW Outside customers served since January 1, 2014?

A. Yes. In response to OAEC 1-02, OG&E identified radial transmission facilities of $15,752,421 the company has provided to serve these customers. I have provided this response as Exhibit DWH – 6. This is the gross radial transmission plant invested to provide service to these customers.

Q. Are these transmission facilities non network facilities which provide service only to the 1 MW Outside customers?

A. Yes. These facilities are radial line segments and other transmission related facilities that have been built to provide service solely to specific 1 MW Outside customers.

Q. Is a direct assignment allocation complicated to employ?

A. No. A direct assignment is, as the name indicates, a direct assignment of the actual gross investment cost. In this case, the gross investment cost for the 1 MW Outside customers is known. Any direct assignment of radial transmission facilities costs should reflect a direct allocation of $15,752,421 to the 1 MW Outside customers.

Q. What allocation method did OG&E create to assign the radial transmission costs?

A. In the tab labeled Radials, in the spreadsheet Okla PUD 2023000087 1 MW to file.xlsm submitted by OG&E, OG&E develops an allocation of radial transmission facilities. I have provided the information in tab Radials on Exhibit DWH – 5. The methodology is an allocation of facilities to all customer classes which have customers with radial transmission line, including an allocation to 1 MW Outside customers. The first and foremost flaw with this approach is that there is no justification for an *allocation* – in contrast to a *direct assignment* - of transmission facilities to the 1 MW Outside class when the actual transmission plant investment of this class is known. OG&E has identified the plant investment for the 1 MW Outside class of $15,752,421.

The allocation method used by OG&E is based on the average cost per mile of all radial transmission plant which by definition would eliminate any differences in cost between customers with direct assignments. The primary purpose of a direct assignment is to assign the investment cost specific to a customer. By using an average cost per mile, the direct assignment concept is defeated and the methodology becomes just a method to socialize the costs among the rate classes. OG&E's methodology results in an allocation of radial transmission plant to the 1 MW Outside customers of $1,362,123 which is *only 8.6% of the actual transmission plant investment* invested by the company to serve these customers.

Q. How does the average cost per mile for radial transmission facilities used in OG&E's allocation method compare to the cost per mile for radial transmission facilities provided to the 1 MW Outside SL-2 class?

A. Based on the data that OG&E has provided, the average cost per mile for radial transmission facilities is shown in the following table.

	Total OG&E	1 MW Outside	Remainder
Radial Transmission Facilities	$41,642,711	$ 15,752,421	$25,890,290
Miles of Line	179.76	5.88	173.88
Average Cost per Mile	$ 231,653	$ 2,678,983	$ 148,895

TABLE 2 - AVERAGE COST PER MILE

The average cost per mile of radial transmission for 1 MW Outside customers is 18 times greater than the average cost for the remainder of radial transmission line. This massive difference in cost is another compelling reason that the actual transmission investment should be directly assigned to the 1 MW Outside class. Using an allocation method that is based on the average cost is just a mechanism to socialize the costs and subsidize the 1 MW Class.

Q. Has OG&E utilized a direct assignment allocation for other distribution plant investment in the cost of service study?

A. Yes. OG&E has utilized a direct assignment methodology to assign the cost of certain distribution plant accounts including substation facilities. This direct assignment is developed on the tab DISTR SUB DA in the spreadsheet Okla PUD 2023000087 1 MW To File.xlxm. A specific example in this spreadsheet is the direct assignment of substation investment which is based on the actual gross plant investment for the specific asset in the specified FERC account. This methodology reflects the standard method of making a direct assignment and is not based on an average cost of facilities. The method OG&E has used to directly assign these distribution facilities is entirely different from the approach that OG&E has utilized to assign the radial transmission assets.

Q. Has OG&E provided any justification for the average cost approach used to allocate radial transmission assets in this class?

A. In response to OAEC 2-06, OG&E's Lauren Maxey provides the following:

"The Company has chosen an allocation method which utilizes direct assignment (exact number of miles for each customer served) and average rate making (average cost per mile). Average cost ratemaking works to ensure fair rates for customers in all areas served by the Company and encourages economic growth throughout the state of Oklahoma. The Company and Commission have traditionally set rates for customers without regard to location, and the Company believes it is good ratemaking policy to develop rates that are uniform across all geographic areas." Such a 'good ratemaking policy' creates an enormous subsidy.

OG&E's allocation methodology for radial transmission assets utilizes the direct number of miles for each customer. However, in response to OAEC 6-1, OG&E has indicated that the company does not know the gross plant balances for each customer line segment. OG&E does know the exact radial transmission plant balance for the 1 MW Outside customer class (OG&E response to OAEC 1-2) and it knows the exact number of radial transmission miles of line for each customer (OG&E 1 MW Cost of service, Tab Radials) but somehow does not know the gross plant investment amount for these other customer line segments. OG&E's inability to maintain the plant records for all customers with radial transmission assets other than the 1 MW Outside customers is not a justification for using an average cost per mile for all customers with radial transmission assets.

OG&E's data request response indicates that it believes that the average cost method works to ensure fair rates for customers in all areas. This is simply wrong. Allocation of the radial transmission costs based on average cost per mile significantly under allocates costs to the 1 MW Outside class and significantly over allocates costs to other rate payers of OG&E. This is clearly not fair to those customers to whom costs have been over allocated.

Q. The response provided by OG&E to OAEC 5-1 states that average cost ratemaking works to "encourage economic growth throughout the State of Oklahoma". How does this relate to the allocation of radial transmission plant using an average cost per mile?

A. This response appears to suggest that OG&E's use of the average cost method has a purpose of intentionally reducing the cost allocation to 1 MW Customers to provide a lower rate to ensure economic growth in Oklahoma. No evidence has been provided by OG&E indicating that the rates OG&E is charging its 1 MW Outside customers has any meaningful impact on economic growth in Oklahoma. The reality is that a review of the list of customers included in the 1 MW Outside group reveals that a majority of the customers are energy industry related and *are geographically bound to service in Oklahoma*. Whether served by OG&E or the cooperatives, the customers will be served in Oklahoma. With regard to the allocation of costs based on average cost per mile, the method used by OG&E serves only to reduce the allocation of costs to 1 MW Outside customers and a bald claim of 'economic development' for the State is not a reasonable justification.

Q. Have you developed a cost of service study utilizing the direct assignment of the actual gross plant investment OG&E identified was made to serve the 1 MW Outside customers?

A. Utilizing the data provided by OG&E, I have developed a revised version of the 1 MW Outside cost of service study. This spreadsheet is Okla PUD 202300087 1 MW To File OAEC Update.xlsm. ("OAEC COSS" Ex X.)

Q. What changes does your spreadsheet OAEC COSS make to OG&E's calculations?

A. The only change made is to the allocation of radial transmission assets on the tab Radials. OG&E has identified the total radial line investment of $41,642,711 and the total directly assignable radial investment based on miles of line of $15,811,725. OG&E identified the actual transmission plant investment of $15,752,421 made to serve the 1 MW Outside customers in response to OAEC 1-02. This value represents 99.62% of the total directly assignable radial investment. Without additional information from OG&E with regard to the actual investment for remaining customers, the OAEC COSS demonstrates the most accurate method of directly assigning the radial transmission assets.

Q. Which component of the data that OG&E has provided regarding radial transmission plant would you consider most reliable?

A. The data that OG&E has provided in response to OAEC 1-02 shows the actual transmission plant investment made by the company of $15,752,421 to serve the 1 MW Outside customer group. The total Radial Transmission investment of $41,642,711 used by OG&E in its calculation is similar but not the same as the amount reported on Worksheet H of Attachment 1 – 2023 OGE Projected ATRR.xlsx, of $41,379,280[2]. OG&E states that the actual transmission plant investment for radial transmission line for customers other than the 1 MW Outside customers is not known. Instead of using actual known data, OG&E has *calculated* a radial plant investment amount for all customers with radials even though the plant investment for 1 MW Outside customers is known. The most accurate and fair

[2] Attachment 1 – 2023 OGE Projected ATRR.xlsx is included in the annual FERC filing that determines the recoverable network transmission costs. The annual spreadsheets are posted on OG&E's website.

direct assignment of transmission radial investment to the 1 MW Outside customers is to utilize the actual transmission plant investment data.

Q. What are the results of the 1 MW Outside cost of service analysis using the direct assignment of actual gross plant investment to the 1 MW customers?

A. The following table summarizes the updated cost of service:

ACCT(S) / DESCRIPTION	ALL(	1 MW OUTSIDE S/L-1	1 MW OUTSIDE S/L-2	1 MW OUTSIDE S/L-3	1 MW OUTSIDE S/L-4	1 MW OUTSIDE S/L-5	TOTAL 1 MW OUTSIDE
SUMMARY - EQUALIZED REQUESTED RATE OF RETURN							
RATE BASE		735,502	56,047,554	4,428,635	481,275	1,905,811	63,598,776
RATE OF RETURN ON RATE BASE		7.88000%	7.88000%	7.88000%	7.88000%	7.88000%	7.88000%
RETURN		57,958	4,416,547	348,976	37,924	150,178	5,011,584
O&M (LESS FUEL), INCLUDES REGULATORY ASSET AMO		44,854	3,483,944	293,610	28,845	111,596	3,962,849
INTEREST ON CUSTOMER DEPOSITS		0	2,078	7,367	0	328	9,773
DEPRECIATION EXPENSE		53,434	3,507,613	317,371	33,488	129,077	4,040,982
TAXES OTHER THAN INCOME TAXES		12,295	732,395	64,343	7,330	26,627	842,990
FED INCOME TAX LIABILITY @ CURRENT ROR		6,349	(939,791)	18,871	69,227	16,909	(828,436)
ADDITIONAL FED INCOME TAX LIABILITY		2,444	1,609,825	34,073	(63,474)	5,875	1,588,742
TOTAL OPERATING EXPENSES		119,376	8,396,063	735,634	75,416	290,411	9,616,901
RETURN DEFICIENCY BEFORE INCOME TAXES @ REQUE		7,612	5,014,561	106,135	(197,719)	18,300	4,948,890
TOTAL PROPOSED OPERATING REVENUE (COST OF SEF		177,334	12,812,611	1,084,610	113,341	440,589	14,628,484
LESS: OTHER OPERATING REVENUE		206	21,528	4,430	188	2,472	28,823
PROPOSED SALES REVENUE @ EQUALIZED ROR		177,127	12,791,083	1,080,181	113,153	438,117	14,599,661
TOTAL PRESENT OPERATING REVENUE		166,741	6,169,376	942,223	374,255	415,539	8,068,135
LESS: OTHER OPERATING REVENUE		206	21,528	4,430	188	2,472	28,823
PRESENT SALES REVENUE		166,535	6,147,848	937,794	374,067	413,067	8,039,311
REVENUE DEFICIENCY		10,592	6,643,235	142,387	(260,914)	25,050	6,560,350
PCT INCREASE TOTAL SALES REVENUE		6.36%	108.06%	15.18%	-69.75%	6.06%	81.60%

TABLE 3 - OAEC 1 MW COST OF SERVICE SUMMARY

The only change that has been made in this version of the cost of service study is to directly assign the full $15,752,421 radial transmission investment to the 1 MW Outside SL-2 class with a reduction in the amount of radial transmission investment assigned to all other customers with radial transmission assets. The impact reflected in Table 3 is a significant increase in the revenue deficiency for the 1 MW SL-2 class which now is $6,643,235. A rate increase of 108.06% is needed in the most significant, SL-2 service load class, to fully eliminate the subsidy that is being provided.

Q. Both the OG&E 1 MW Outside cost of service study and the OAEC 1 MW cost of service study indicate significant subsidy is being provided to the 1 MW Outside customers. Why is it important to define the appropriate method of direct assignment of radial transmission assets to the 1 MW Outside customers?

A. The difference in allocation methodology clearly makes a difference in the level of costs allocated to each class and the revenue deficiency identified. It is important that the cost of service allocation is done correctly both now and in the future.

Q. How does OG&E's application of its line extension allowable investment formula impact the cost of providing service to the 1 MW Outside class?

A. OG&E's application of its allowable investment formula to prospective 1 MW Outside customer loads consistently overstates the level of plant investment that OG&E can afford to invest to serve the respective loads. The failure of its allowable investment formula is the reason such large unjustified investments in facilities have been made to serve 1 MW Outside customers and a primary reason the 1 MW Outside cost of service study shows such poor performance from these customers.

Q. What is the purpose of the allowable investment calculation?

A. The purpose of the allowable investment formula is to determine the greatest level of plant investment the company can make to provide service to a new customer and recover those costs from that load through current rates. The rates charged to a specific class of customers are determined based on a cost of service study that identifies the utility plant investment and operating expenses required to provide service. Utilizing the projected revenue from the application of the base rates and the plant and expense information from the cost of service study, the amount of plant investment a utility can support to serve a new customer can be calculated.

Q. **Is the calculation of allowable investment based on marginal costs or embedded costs?**

A. The calculation of the allowable investment that a utility can support is not based on marginal costs. Marginal costs are defined as the incremental cost of providing service to a new customer. The rates billed to a customer are designed to recover the embedded costs of providing service as reflected in the utility's cost of service study. Those costs are largely a function of the level of plant investment that has been made to provide service. The calculation of the allowable investment must recognize these embedded costs to correctly produce an allowable plant investment amount that is economically justified.

Q. **What about the argument that new customers only have a marginal or incremental impact on the utility's expenses?**

A. A utility is constantly adding new electric facilities to provide service to its new and existing customers. A portion of those facilities are the direct facilities required to connect the single new customer to the electric system, the new lines and facilities such as transformers or substations. Another portion of facilities are for backbone transmission, distribution and general plant facilities to serve all customers. The cumulative growth in new customers along with continual maintenance, including renewals and replacements drive the plant additions and the increase in expenses. New customers added, should over time, work to lower the overall embedded cost of providing service to the extent the level of plant investment and expenses for the new customer growth do not exceed the average embedded costs. However, the cost of providing service is continually increasing. The cost of providing service to a specific customer or customer class is determined in the cost of service study. There is no recognized marginal cost of service study that defines a different cost of providing service to a new customer. New customers pay the same rates as existing customers, which are determined based on the costs in the cost of service study.

Q. **Does OG&E's allowable investment calculation utilize data from the Company's embedded cost of service study?**

A. No. OG&E provided two examples of its allowable investment calculation in response to OAEC 2-01 and did not include data from or even reference the cost of service data in either one.

Q. **What costs of providing service has OG&E recognized in its allowable investment calculation?**

A. OG&E recognizes incremental property taxes, incremental non-variable operating expenses and incremental income taxes as costs of providing service to a new customer in its allowable investment calculation. OG&E's methodology calculates the projected annual revenue from base rates over a twenty year period, then subtracts the incremental costs stated above to produce a net operating profit. The net present value of the net operating profit for a twenty-year period is calculated as the allowable investment.

Q. **How does OG&E determine the incremental costs used in its allowable investment calculation?**

A. Based on data request responses, OG&E utilized its FERC Form 1 to determine the property tax as a percent of plant, the non-variable operations and maintenance expense as a percent of plant and any other operations and maintenance expense as a percent of plant.

These percentages are applied only to the estimated new plant required to provide service. Income tax percentages are based on the current tax rates. OG&E does not utilize its cost of service study as the reference for the costs of providing service in its calculation. In addition, in the example included in OG&E's data request response OAEC 02-01_Att2.xlsx, the non-variable operations and maintenance expense was set at zero for the first six years. In this example, the costs recognized in the calculation are even less than the marginal cost of providing service.

Q. **Does OG&E's marginal cost approach to its allowable investment calculation produce a meaningful value?**

A. No, OG&E's marginal cost approach is designed to only recognize the marginal costs of providing service. The calculation assumes that the entire amount of the base rate revenue from the new customer is available to support only the incremental investment and associated marginal costs. This is not true. The base rate revenue is properly designed to support all of the investment required to serve the load and cover all of the costs of providing service, both the incremental costs and the embedded costs. By recognizing only marginal costs in its calculation, even if all marginal costs are included, the total costs of providing service to the new load are significantly understated resulting in an overstated level of net operating profit and an overstated calculation of allowable investment. OG&E's calculation is guaranteed to result in an allowable investment amount that exceeds the amount that can be supported by the revenue from base rates.

Q. **Can you demonstrate how OG&E's allowable investment calculation does not work?**

A. Yes. I have developed an example of OG&E's allowable investment calculation using OG&E's spreadsheet provided in response to OAEC 2-1. Exhibit DWH – 2, Pages 1 and

2, provide the calculation. The spreadsheet OAEC 02-01_Att1 OAEC Version.xlsx contains the example calculation.

Q. **What assumptions have you used in the example calculation of OG&E's allowable investment?**

A. In the example, the customer's monthly load is projected at 5,000 kW at an 80% load factor, requiring $5 million in projected initial investment to serve. The example customer is similar to a customer served on the 1 MW Outside SL-2 class. The base rate is the existing Large Power and Light TOU SL-2 rate. The taxes other than income taxes is 1.00%, the non-variable expense is 1.55% and the income tax rate is 25%. The expense percentages are set at values consistent with those reflected in the response provided by OG&E with a current tax rate.

Q. **What are the results shown on Exhibit DWH -2, Page 2?**

A. OG&E's methodology of calculating the allowable investment based on the assumptions reflected above (shown on Exhibit DWH – 2, Page 1) results in an allowable investment for this new load of $4,180,173.

Q. **Is an allowable investment of $4,180,173 reasonable for service to a new 1 MW Outside customer served on the LPL-TOU SL-2 rate?**

A. The results of the 1 MW Outside cost of service study for the SL-2 class reflects a very substantial loss and a need for a 90% - 100% increase. The reasonable expectation would be that no new investment could be supported to serve a new load since the base rate revenue is so significantly deficient in recovering the costs of providing service. The cost of service shows that the 1 MW Outside SL-2 class is operating at a loss, yet the allowable investment calculation purports to show the company can afford to spend $4.1 million in facilities to serve a new load. It simply does not make sense.

Q. **What additional analysis have you provided to show that OG&E's allowable investment calculation is flawed?**

A. I have prepared an allowable investment calculation based on embedded costs as reflected in the cost of service study. Given that base rates are designed to recover all of the costs as defined in the cost of service study, all of these costs should be recognized when determining the allowable investment to serve a new customer. This analysis is shown on Exhibit DWH – 3 and DWH – 4 and included in the spreadsheet Okla PUD 202300087 1 MW To File OAEC Update.xlsm.

Q. **Please describe the analysis on Exhibit DWH – 3.**

A. The analysis on Exhibit DWH – 3 calculates the Net Supported New Investment (Allowable Investment) utilizing the projected base rate revenue and the embedded costs of providing service from the cost of service study. The customer load projections are the same as reflected in the OG&E calculation discussed previously. The monthly demand is 5,000 kW at an 80% load factor. The kWh billing units by season and period are as reflected in the OG&E spreadsheet. There are two scenarios developed on Exhibit DWH -3. The first column calculates annual base rate revenue of $642,491 utilizing the existing LPL-TOU SL-2. This base rate revenue is consistent with the amount calculated in the example OG&E allowable investment calculation. Scenario two is developed in the second column utilizing a proposed rate which reflects a 100% increase in the base rate. In both scenarios, the Customer Charge revenue is removed from the base rate revenue to account for the customer related costs of providing service. The resulting Total Annual Wires

Billing w/o Customer Related Revenue (Ex. 3, line 3.20) represents the base rate revenue available to support the total investment made by the Company to serve the new load.

Q. **Please describe the Return Factor shown in section 4 of Exhibit DWH – 3.**

A. The Return Factor shown in section 4 of Exhibit DWH – 3, represents the embedded costs of providing service as a percent of plant investment. There are three components of the Return Factor. The first component on Line 4.10 includes the operations and maintenance expense, administrative and general expense, taxes other than income taxes and rate of return costs as calculated on Exhibit DWH – 4. The second component on Line 4.20 reflects depreciation expense based on a twenty-year projected life. A twenty-year depreciation is used to match the period used in OG&E's calculation. The third component on Line 4.30 is an estimate of the income tax costs expressed as a percent of plant. The total Return Factor is 14.04%. The Total Annual Wires Billing on Line 3.20 divided by the total Return Factor produces the Total Supported Investment (both new investment and existing allocated investment) to serve the new customer. For scenario one the total supported investment is $4,546,669 and for scenario two the total supported investment is $9,093,337.

Q. **What do the values on Line 5.00 of Exhibit DWH – 3 represent?**

A. The Total Supported Investment represents the total investment that can be supported to serve the new customer load based on the projected revenue and the costs of providing service as defined in the cost of service. The Total Supported Investment includes both the new investment to connect the customer to the system and the allocated portion of the existing system that will be utilized to serve the new load. Section 6 of Exhibit DWH -3 calculates the Allocated System Transmission Investment and the Allocated System

Production Plant Investment required to provide service to this customer. The Total System Investment Allocated to serve the load on Line 7.00 of $6,346,822 represents the investment that will be assigned in the cost of service study and the amount of allocated investment that the base rate is designed to recover.

Q. **What is the result of the Allowable Investment calculation based on embedded costs from the cost of service study?**

A. The Net Supported New Investment on Line 8.00 of Exhibit DWH -3 is equal to the Total Supported Investment on Line 5.00 less the Total System Investment Allocated on Line 7.00. For scenario one, the Net Supported New Investment is ($1.800,154) and for scenario two the Net Supported New Investment is $2,746,515.

Q. **What is the difference in the calculated allowable investment using the OG&E methodology based on incremental costs versus the methodology using the embedded costs from the cost of service study?**

A. For the example customer, the OG&E allowable investment methodology shown on DWH – 2 yielded an allowable investment value of $4,180,173 while the methodology based on embedded costs shown in DWH 3, line 8.00 reflects an allowable investment value of ($1,800,154). The OG&E methodology overstates the allowable investment for this 1 MW Outside customer (5,000 kW load) on the existing LPL-TOU SL-2 rate by $5,980,327.

Q. **Why is it so important that the line extension allowable investment amount be calculated correctly?**

A. An allowable investment calculation that overstates the amount of investment that can be made to serve a new customer causes OG&E to provide more investment for such new load than the rates can support. A primary cause of the significant under recovery reflected for the 1 MW Outside SL-2 class in the cost of service study is the excessive plant investment made by OG&E to serve this group of customers which has been directly caused by the flawed allowable investment calculation. If the allowable investment amount is overstated for a class of customers, the result will be an under recovery of costs for that class in the cost of service study. This is particularly egregious in this instance because the customers in question are intended to be subject to open competition. Overstating the allowable investment amount results in the provision of free or significantly reduced line extension costs to a new customer. Free or reduced line extension costs coupled with a rate that provides service at significantly lower than cost of service levels has resulted in a grossly unfair situation to rural electric cooperatives competing for these favorable loads.

Q. **Given the significant revenue deficiency (loss) from the 1 MW Outside SL-2 class and the overstated allowable investment calculation, why has OG&E not proposed to make changes in prior rate filings or in this rate filing?**

A. Historically, the scope of the revenue deficiency and subsidy being provided to the 1 MW Outside customers has not been known because OG&E's cost of service study filed with the OCC did not separately identify these customers. These customers were buried in other rate classes that have been subsidizing the 1 MW Outside customers for many years. The rate making process that has existed has allowed OG&E to serve this customer group at a loss and make unjustified plant investment while recovering the costs of providing service, which includes the return on investment, from other customer classes. OG&E simply has had no incentive to make any changes. As an Investor-Owned Utility, OG&E's business model requires an ever increasing level of plant investment and rate base in order to provide the necessary and expected return to shareholders. OG&E has been able to make investments of plant to provide service to new 1 MW Outside customers and be assured that the costs would be recovered and a return would be earned regardless of which customers were paying for those costs and return. Since these customers are subject to competition, having the lowest rate and providing the lowest level of customer contribution for line extension would be an important factor in being selected by the customer. With no requirement to serve these customers at rates that recover the cost of providing service nor any negative consequence of calculating the allowable investment amount correctly, OG&E has perpetuated this unfair business practice for the purpose of benefiting shareholders to the detriment of rate payers and the cooperatives.

Q. **Considering the subsidies identified for the 1 MW Outside SL-2 class in the cost of service study and the overstated allowable investment calculation, what are your recommended remedies?**

A. OAEC supports the following remedies:

1. OG&E should be required to fully comply with the provisions of HB2845 which requires 1 MW Outside customers be served on separate tariffs which eliminate subsidies. OAEC believes that ultimately, all 1 MW Outside customers should be served on a single tariff that reflects the full recovery of costs as defined in the cost of service study with no subsidies. A separate tariff for prospective 1 MW Outside customers was established in OG&E's last rate case. The proposed tariff for prospective 1 MW Outside customers in this filing should reflect the full 108% increase reflected in the OAEC cost of service study included in my testimony. The subsidy provided to 1 MW Outside customers identified in the cost of service study should be immediately eliminated by increasing the per unit rates to provide the

108% increase. There is no justification for allowing a new 1 MW Outside customer to be served on a rate that does not recover all costs and results in the provision of a subsidy.

2. OG&E should be required to utilize a direct allocation of transmission facilities and associated costs to the 1 MW Outside class in its cost of service study that assigns the actual plant investments costs that OG&E has identified it made to provide service.

3. Until such time that all 1 MW Outside customers are ordered by the OCC to be served on a single tariff, all existing 1 MW Outside customers should be served on a separate tariff which is structured similarly to the proposed 1 MW Outside tariff for prospective customers. OG&E should be required to eliminate the subsidy provided to customers served on the existing 1 MW Outside tariff on a timeline specified by the OCC. Until such time that the subsidy is fully eliminated, the subsidy identified in the cost of service study should be an offset to the Company's overall revenue requirement.

4. OG&E should be required to revise its line extension allowable investment calculation to recognize the embedded costs of providing service as reflected in the cost of service study.

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

A. Yes, it does.

STATE OF OKLAHOMA)
) ss
COUNTY OF OKLAHOMA)

I state under penalty of perjury, and the laws of the State of Oklahoma, that the foregoing Direct Testimony is true and correct to the best of my knowledge, information, and belief.

David W. Hedrick

Dated: May 3, 2024

SUBSCRIBED AND SWORN to before me this 3rd day of May 2024.

Hope Davis

Notary Public

My Commission Expires: 01-28-26

HOPE S DAVIS
Notary Public, State of Oklahoma
Commission # 22001321
My Commission Expires 01-28-2026

Referenced Exhibits

Exhibit DWH – 1 - Experience and Resume of David W. Hedrick

Exhibit DWH – 2 – Example Allowable Investment – OG&E Methodology

Exhibit DWH – 3 – OAEC Version Allowable Line Extension Investment

Exhibit DWH – 4 – OAEC Version Allowable Line Extension Investment Fixed Return Factor

Exhibit DWH – 5 – Radials Tab from OGE spreadsheet Okla PUD 202300087 1 MW to File.xlsm

Exhibit DWH – 6 – OG&E Response to OAEC 1-02

Referenced Spreadsheets

Okla PUD 2023000087 1 MW To File.xlsm - OG&E's 1 MW Cost of Service Study submitted by OG&E

Okla PUD 2023000087 1 MW To File OAEC Updates.xlsm – OAEC 1 MW Cost of Service Study submitted with Hedrick testimony

OAEC 02-01_Att1 OAEC Version.xlsx – Includes Exhibit DWH - 2 guernsey ENGINEERS ARCHITECTS CONSULTANTS

DAVID W. HEDRICK
EXECUTIVE VICE PRESIDENT, PRINCIPAL / MANAGER, ANALYTICAL SOLUTIONS

EDUCATION:

M.B.A., Oklahoma City University, 1993
B.S., Mathematics, University of Central Oklahoma, 1986

EXPERIENCE:

1981-Present – C. H. Guernsey & Company, Oklahoma City, Oklahoma

2016 – Present – Executive Vice President, Principal for Guernsey
2012 - 2016 – Sr. Vice President, Principal for Guernsey
2008 - 2012 – Vice President, Manager, Analytical Solutions Group

Mr. Hedrick specializes in the development of revenue requirements, cost of service, rate design, and financial forecasts for retail and wholesale electric cooperatives and municipal electric systems. He is responsible for the preparation of rate filings and has presented expert testimony before state regulators in Arizona, Arkansas, Colorado, Oklahoma, Texas and Wyoming. Additionally, Mr. Hedrick has provided consulting services and representation to electric cooperatives in the areas of merger and acquisition, contract rate negotiation, net metering and distributed generation guidelines, community solar analysis, value of solar analysis, pole attachment charges and certificated service territory disputes.

As Manager of the Analytical Solutions Group, Mr. Hedrick has oversight of all studies, analyses and filings that are developed by the group. He continues to represent clients before the appropriate regulatory authority and is responsible for the preparation of rate filings and other analytical studies.

SPECIFIC CONSULTING EXPERIENCE:

Acquisitions, Consolidations & Valuation Analysis

Mr. Hedrick has provided analytical support for consolidation studies in Oklahoma, Texas and Wyoming. In addition, he has been involved in the valuation analysis of utility assets for purposes of acquisition and determination of fair market value for clients in Oklahoma and Kansas.

Retail Rate Analysis, Cost of Service Studies, and Line Extension Analysis

Mr. Hedrick's rate analysis and cost of service experience includes the following:

Arizona

- Navopache Electric Cooperative, Inc. – Regulated by Arizona Corporation Commission
- Sulphur Springs Valley Electric Cooperative, Inc. – Regulated by Arizona Corporation Comm.
- Mohave Electric Cooperative – Regulated by Arizona Corporation Comm.
- Trico Electric Cooperative, Inc. – Regulated by Arizona Corporation Comm.

Arkansas

- Arkansas Valley Electric Cooperative Corporation – Regulated by Arkansas PSC and Oklahoma Corporation Commission
- Ouachita Electric Cooperative Corporation – Regulated by Arkansas PSC
- Ozarks Electric Cooperative Corporation – Regulated by Arkansas PSC

Colorado

- Colorado Rural Electric Association
- Delta-Montrose Electric Association
- Empire Electric Association, Inc.
- Grand Valley Rural Power Lines
- Holy Cross Electric Association, Inc.
- Mountain Parks Electric, Inc.
- Poudre Valley REA, Inc.
- San Luis Valley Rural Electric Cooperative, Inc.
- Yampa Valley Electric Cooperative, Inc.

Iowa

- Iowa Lakes Electric Cooperative, Inc.
- Midland Electric Cooperative, Inc.

Kansas

- Ark Valley Electric Cooperative Association
- CMS Electric Cooperative, Inc.
- Flint Hills Electric Cooperative, Inc.
- Lyon-Coffey Electric Cooperative
- City of Meade
- Ninnescah Rural Electric Cooperative Assn., Inc.
- Pioneer Electric Cooperative, Inc.
- Sedgwick County Electric Cooperative, Inc.
- Western Cooperative Electric Association, Inc.

Louisiana

- Claiborne Electric Cooperative

Mississippi

- Southern Pine EPA
- Yazoo Valley EPA

Montana

- Tongue River

Nebraska

- Dawson County Public Power District

New Mexico

- Farmers Electric Cooperative, Inc.
- Lea County Electric Cooperative, Inc.
- Mora-San Miguel Electric Cooperative, Inc.

North Carolina

- Union Power Cooperative, Inc.

Oklahoma

- City of Blackwell
- Caddo Electric Cooperative
- Canadian Valley Electric Cooperative, Inc.
- Central Rural Electric Cooperative, Inc.
- Choctaw Electric Cooperative, Inc.
- Cimarron Electric Cooperative, Inc.
- Cookson Hills Electric Cooperative, Inc.
- Cotton Electric Cooperative, Inc.
- City of Duncan
- East Central Oklahoma Electric Cooperative
- City of Ft. Supply
- Indian Electric Cooperative, Inc.
- Kay Electric Cooperative, Inc.
- City of Kingfisher
- Kiwash Electric Cooperative, Inc.
- Lake Region Electric Cooperative, Inc.
- City of Mangum
- City of Mooreland
- Northeast Oklahoma Electric Cooperative, Inc.
- Northfork Electric Cooperative
- Northwestern Electric Cooperative, Inc.
- Oklahoma Electric Cooperative, Inc.
- City of Ponca City
- Rural Electric Cooperative, Inc.
- Southeastern Electric Cooperative, Inc.
- Southwest Rural Electric Association
- Tri-County Electric Cooperative, Inc.
- Verdigris Valley Electric Cooperative

Texas

- Bailey County ECA
- Bandera Electric Cooperative, Inc.
- Big Country Electric Cooperative, Inc.
- Bluebonnet Electric Cooperative, Inc.
- Central Texas Electric Cooperative, Inc.
- Concho Valley Electric Cooperative, Inc.
- Cooke County Electric Cooperative Assn.
- CoServ Electric
- Deaf Smith Electric Cooperative, Inc.

- Fannin County Electric Cooperative, Inc.
- Farmers Electric Cooperative, Inc.
- Fort Belknap Electric Cooperative, Inc.
- Grayson-Collin Electric Cooperative, Inc.
- Greenbelt Electric Cooperative, Inc.
- HILCO Electric Cooperative, Inc.
- Jackson Electric Cooperative, Inc.
- Lamar County Electric Cooperative, Inc.
- Lighthouse Electric Cooperative, Inc.
- Lyntegar Electric Cooperative, Inc.
- Magic Valley Electric Cooperative, Inc.
- Medina Electric Cooperative, Inc.
- Navarro County Electric Cooperative, Inc.
- Navasota Valley Electric Cooperative, Inc.
- North Plains Electric Cooperative, Inc.
- Nueces Electric Cooperative, Inc.
- Pedernales Electric Cooperative, Inc.
- Rayburn Country Electric Cooperative, Inc.
- Rita Blanca Electric Cooperative, Inc.
- San Bernard Electric Cooperative, Inc.
- South Plains Electric Cooperative, Inc.
- Southwest Rural Electric Association, Inc., Okla.
- Southwest Texas Electric Cooperative, Inc.
- Swisher Electric Cooperative, Inc.
- Taylor Electric Cooperative, Inc.
- Texas Electric Cooperatives, Inc., Statewide Association
- Tri-County Electric Cooperative, Inc.
- Trinity Valley Electric Cooperative, Inc.
- United Cooperative Services
- Wharton County Electric Cooperative, Inc.
- Wise Electric Cooperative, Inc.

<u>Utah</u>

- Garkane Electric Cooperative, Inc.

<u>Wyoming</u>

- Big Horn REC – Regulated by Wyoming Public Service Commission until 2007
- Carbon Power & Light, Inc. – Regulated by Wyoming Public Service Commission until 2007
- High Plains Power, Inc. – Regulated by Wyoming Public Service Commission until 2007
- Powder River Energy Corporation – Regulated by Wyoming Public Service
- Wyrulec Company – Regulated by Wyoming Public Service Commission until 2007

<u>Wholesale Rate Analysis and Cost of Service Studies</u>

- Allegheny Electric Cooperative, Harrisburg, Pennsylvania
- Arkansas Electric Cooperative Corporation

- Brazos Electric Cooperative, Waco, Texas
- Central Electric Power Cooperative, Columbia, South Carolina
- Corn Belt Power Cooperative, Humboldt, Iowa
- Kansas Electric Power Cooperative, Topeka, Kansas
- Golden Spread Electric Cooperative, Amarillo, Texas
- Grand River Dam Authority, Vinita, Oklahoma
- Minnkota Power Cooperative, Grand Forks, North Dakota
- Oklahoma Municipal Power Authority, Edmond, Oklahoma
- Old Dominion Electric Cooperative, Richmond, Virginia
- Piedmont Municipal Power Authority, Greer, South Carolina
- Rayburn Country Electric Cooperative, Rockwall, Texas
- South Mississippi Electric Power Association, Hattiesburg, Mississippi
- Western Farmers Electric Cooperative, Anadarko, Oklahoma

Special Projects

Development of Distributed Generation Procedures and Guidelines Manual:

- Western Farmers Electric Cooperative, Anadarko, Oklahoma
- KAMO Electric, Vinita, Oklahoma
- Texas Electric Cooperatives, Austin, Texas

Energy Policy Act of 2005 / EISA 2007 - Testimony in Support of Cooperative Staff's Position in Consideration of new PURPA Standards:

- Central Rural Electric Cooperative, Stillwater, Oklahoma
- Cotton Electric Cooperative, Walters, Oklahoma
- Farmers Electric Cooperative, Greenville, Texas
- Grand River Dam Authority, Vinita, Oklahoma
- Grayson-Collin Electric Cooperative, Van Alstyne, Texas
- HILCO Electric Cooperative, Itasca, Texas
- Lake Region Electric Cooperative, Hulbert, Oklahoma
- Lyntegar Electric Cooperative, Tahoka, Texas
- Magic Valley Electric Cooperative, Mercedes, Texas
- Northwestern Electric Cooperative, Woodward, Oklahoma
- Oklahoma Electric Cooperative, Norman, Oklahoma
- Tri-County Electric Cooperative, Azle, Texas
- Tri-County Electric Cooperative, Hooker, Oklahoma
- United Electric Co-op Services, Cleburne, Texas

Testimony before Colorado State House and Senate Committees in support of the Colorado Rural Electrification Association with regard to HB1169, Mandating Net Metering for Electric Cooperatives, 2007.

A Fresh Look Analysis and Review of East Kentucky Power Cooperative on behalf of the members of EKPC as directed by the Kentucky Public Service Commission, 2011 -2012.

Representation of Texas Electric Cooperatives in the development of Pole Attachment charges, 2012.

Analysis of community solar resource options including vendor selection and contract negotiations. Development of community solar tariffs and member program agreements for various electric cooperatives, 2014 – 2016.

Representation of Grand Canyon Statewide Electric Cooperative Association and Sulphur Springs Valley Electric Cooperative in the Arizona Value of Solar proceeding, 2016.

Representation of Central Texas Electric Cooperative in dispute with the City of Fredericksburg regarding service territory, 2015

Education and Training

Mr. Hedrick provides educational seminars and training for cooperative staff and boards of directors, statewide associations, and professional organizations on the topics of Rate Analysis, Cost of Service, Rate Design, Line Extension Policy, and related issues.

Expert Witness

Mr. Hedrick has provided expert testimony related to the development of revenue requirements, cost of service, rate design, and special contract issues in Arizona, Arkansas, Oklahoma, Texas, and Wyoming.

Financial Forecasting & Analysis

Mr. Hedrick prepares and provides training in the development of financial forecast models for electric cooperatives and municipal utility systems.

Software Sales & Support

Mr. Hedrick provided assistance in the development of software for GUERNSEY's 10-year Financial Forecast, Cost of Service, and Financial Performance Analysis programs. Mr. Hedrick is proficient in the use of these software packages and provides support to client users.

Strategic Planning & Analysis

Mr. Hedrick has provided assistance to electric cooperative boards of directors in the development of strategic goals and objectives.

Publications and Presentations:

"Retail Rate Guide Volumes 1 and 2", published by National Rural Electric Cooperative Association (NRECA) and the National Rural Utilities Cooperative Finance Corporation (CFC), contributor, 2017

"Assessing the Impact of DG and Evaluating Community Solar" Webinar presented by CoBank in conjunction with the National Energy Solutions Institute and Smart Energy Source Association, March 2015

"Retail Rate Development: The Role of the Cooperative Board." *Management Quarterly*, published by NRECA's Education and Training Department. (Spring 2005): 20-35.

"Knowledge is Power: Financial Forecasting." Seminar written and presented by Guernsey personnel annually since 2006 in Oklahoma City, Okla. Mr. Hedrick has been a presenter for this seminar numerous times.

"Knowledge is Power: Understanding Rates and Cost of Service." Seminar written and presented by Guernsey personnel annually since 2005, in Oklahoma City, Okla., as well as other locations. Mr. Hedrick has been a presenter numerous times.

"Distributed Generation Net Metering Issues." Written for and presented at *TEC Engineers Association Annual Meeting.* September 2006.

"Net Metering Issues." Written for and presented at *G&T Planners Association Meeting,* Tucson. Arizona, September 2006.

"Development of Distributed Generation Policies and Procedures." Written and presented for *Texas Electric Cooperatives' Managers Meeting.* San Antonio, Texas, December 2, 2004.

"Rate Design in a Restructured Environment." Written and presented for *Texas Electric Cooperatives Accountants Association*. Austin, Texas, April 19, 2000.

EXHIBIT DWH - 2
PAGE 1 OF 2

Example Allowable Expenditure - OG&E Methodology

		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**Year 11**	**Year 12**	**Year 13**	**Year 14**	**Year 15**	**Year 16**	**Year 17**	**Year 18**	**Year 19**	**Year 20**
Gross Margin		642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490	642,490
Other Taxes (Property/Ad Valorum)		(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
Other Variable Expenses		(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)	(77,500)
Total Variable Expenses		(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)	(127,500)
Earnings Before Taxes		514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990	514,990
Income Taxes		(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)	(128,747)
Net Operating Profit After Taxes		386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242
Contribution Margin (Net Cash Flow)		386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242	386,242

Allowable Expenditure (AE)	4,180,173
Cost-to-Serve (Standard Service)	$5,000,000
Competitive Customer Incentives	$0
NPV (Allowable Expenditure less CTS)	(819,827)

Assumptions
Model Uses:

Sate of Operation	**Oklahoma**
Mode of Analysis	**2. Season kW/kWh with Load Factor**

Option 4) METHOD TO USE IF ONLY MAX KW & LOAD FACTOR AVAILABLE

		-25%		10%
Average Monthly Demand-1	5,000	0		0
Average Monthly Demand-2	0	0	0	0
Average Monthly Demand-3	0	0	0	0
Average Monthly Demand-4	0	0	0	0
Annual Load Factor	80%	0%		0%

Year 1 In-Service Multiplier	100%	50%		100%
In Service Date	1/0/1900			
		Low	Estimated	High
Standard Service - Single Primary Service		**-10.0%**		**25.0%**
Cost for Standard Service	$5,000,000	$0		$0

Competitive Customer Incentives	$0
Tax Rate	25.00%
WACC	7.69%
Other Taxes % of Capex	1.00%
Non-Fuel Variable Production Expenses	1.55%
Tax Impact Adjustment Factor	127.97%
Horse Power Conversion	0.746
Length of Analysis	20

	REQUIRED INPUTS
Franchise Fee or In Lieu (%)	0.000%
State, City & County Sales Tax (%)	0.000%
Service level	[redacted]
Power Factor (%)	90%

	OPTIONAL INPUTS
EIC monthly amount - LPL only (kWh) - if applicable Ended Dec-2011.	0
LR Subscribed Curtailment Load (kW) - if applicable	0
LR Subscription Price ($) - if applicable	$0.00
GPWR monthly amount (kWh) - if applicable	0
RECs monthly amount ($) - if applicable	$0
DPR opt-out -(Y or N) - if applicable (must have > 15,000,000 kWh).	N
Peak Energy Ratio (%) - if On peak hours not known	14.88%

Exhibit DWH - 3

OAEC VERSION

ALLOWABLE LINE EXTENSION INVESTMENT
EXAMPLE 1 MW OUTSIDE SL - 2 CUSTOMER BILLED ON LPL-TOU RATE

			Existing Rate 5,000.00 kW	Proposed Rate w/100% Increase 5,000.00 kW
1	**Billing Units**			
1.11	Consumers (12 month sum)		12	12
1.12	NCP Billing kW (12 month sum)		60,000	60,000
1.13	Coincidence Factor	Assumption	90.00%	90.00%
1.14	Losses	Sub Level	2.000000%	2.000000%
1.14	Monthly Coincident KW (Allocated kW) [((L1.2 / (1-L1.4) x L1.3)) / 12]		4,592	4,592
1.16	Load Factor	Assumption	80.00%	80.00%
1.17	kWh @ Retail Meter		35,040,000	35,040,000
1.18	Summer On Peak kWh		1,742,890	1,742,890
1.19	Summer Off Peak kWh		12,945,178	12,945,178
1.20	Winter kWh		20,351,933	20,351,933
2.00	**Wires Rate**			
2.10	Customer Charge		350.00	700.00
2.20	Demand Charge		7.631	15.262
2.30	Summer On Peak		0.04430	0.08860
2.40	Summer Off Peak		0.00310	0.00620
2.50	Winter Off Peak		0.00310	0.00620
3.00	**Total Annual Billing Billing**		642,491	1,284,982
3.10	Less: Consumer Accounting, Meter Reading, Etc.		(4,200)	(8,400)
3.20	Total Annual Wires Billing w/o Customer Related Revenue		638,291	1,276,582
4.00	**Return Factor Including Depreciation and Income Tax Est.**			
4.10	Return Factor (O&M, Admin and ROR) as % of Plant	Return Factor Line 12	8.04%	8.04%
4.20	Depreciation Rate	20 Year Rate	5.00%	5.00%
4.30	Income Tax Adder at 25% tax rate	Est. as % of Plant	1.00%	1.00%
4.40	Total Return Factor		14.04%	14.04%
5.00	Total Supported Investment (Includes both New Investment and Existing Allocated)	Line 3.20 / L4.40	4,546,669	9,093,337
6.00	**Allocated System Investment for Capacity Requirements**			
6.10	Allocated System Transmission Plant Investment per 12 CP kW	Return Factor Line 15	399.84	399.84
6.20	Monthly Coincident Demand (Allocated kW)	Line 1.14	4,592	4,592
6.30	Allocated System Transmission Plant Investment	Line 6.10 X Line 6.20	1,836,016	1,836,016
6.40	Demand Component of Production Plant per Allocated 4 CP kW	Return Factor Line 18	982.35	982.35
6.50	Monthly Coincident Demand (Allocated kW)	Line 1.14	4,592	4,592
6.60	Allocated System Production Plant Investment	Line 6.40 X Line 6.50	4,510,806	4,510,806
7.00	Total System Investment Allocated to New Load	Line 6.30 + Line 6.60	6,346,822	6,346,822
8.00	Net Supported New Investment	Line 5.00 - Line 7.00	(1,800,154)	2,746,515

EXHIBIT DWH - 4

OAEC VERSION

ALLOWABLE LINE EXTENSION INVESTMENT
FIXED RETURN FACTOR
FOR OG&E 1 MW OUTSIDE SL-2 CLASS

		1MW OUTSIDE SL-2 CLASS	
1	Plant In Service	107,330,414	COST OF SERVICE BG75
2	Rate Base	56,047,554	COST OF SERVICE BG98
	Expenses:		
3	Operations and Maintenance Expense	2,408,165	COST OF SERVICE BG399 + BG454 + BG + BG511
4	Administrative and General Expense	1,070,813	COST OF SERVICE BG620
6	Taxes other than Income Taxes	732,395	COST OF SERVICE BG906
7	System Average Rate of Return on Rate Base	7.880%	Proposed System Rate of Return
	<u>Expenses Excluding Depreciation as % of Plant:</u>		
8	O&M as % of Plant in Service	2.24%	Line 3 / Line 1
9	Admin and General as % of Plant	1.00%	Line 4 / Line 1
10	Taxes other than Income Taxes as % of Plant	0.68%	Line 6 / Line 1
11	Required Return as % of Plant in Service	4.11%	(Line 2 X Line 11) / Line 1
12	Total Revenue Requirement as % of Plant	8.04%	
	<u>System Plant Allocation - Demand Related</u>		
13	Network Transmission Plant (Total Trans Plant less Direct)	14,318,455	COST OF SERVICE BG1009 - BG966 - BG 985 - BG992 -BG999
14	Allocated Transmission Demand kW - 12 CP	35,810	TRANS DMD E117
15	Demand Component of Plant Per 12 CP Allocated kW	399.84	Line 13 / Line 14
16	Production Plant	41,642,937	COST OF SERVICE BG959
17	Allocated Production Demand kW - 4 CP	42,391	PROD DMD M115 + N115
18	Demand Component of Plant per 4 CP Allocated kW	982	Line 16 / Line17

Exhibit DWH - 5

Tab "Radials" from Okla PUD 202300087 1 MW To File.xlsm

Total Mileage	179.76
Dedicated Radial Mileage	68.26
All Other	111.51

179.76	Pole Top Index
68.26	Dedicated per Engineering
111.51	All Other Radials
37.97%	To DA
62.03%	Remaining

Gross Plant	Total	To Direct Assign
0350	$ 623,639	$ 236,795.58
0354	$ 342,558	$ 130,069.06
0355	$ 28,894,837	$ 10,971,361.00
0356	$ 11,781,677	$ 4,473,499.19
Total GP	$ 41,642,711	$ 15,811,725

Avg Costs/Mi		$ 231,653

Allocation of Radial Assets by Rate Code	Mileage	Cost	Allocation
1MW SL1	0	$ -	0.00%
1MW SL2	5.88	$ 1,362,123	8.61%
1MW SL3	0	$ -	0.00%
1MW SL4	0	$ -	0.00%
1MW SL5	0	$ -	0.00%
All Others	62.37593	$ 14,449,602	91.39%
		$ 15,811,725	

All Others	Mileage	Cost	For DA	Allocation	
AR36E-2	0.39	$ 90,345	0.57%	0.63%	Not at issue
AR36RE-1	1.0719	$ 248,309	1.57%	1.72%	Not at issue
AR39-1	0.1593	$ 36,902	0.23%	0.26%	Not at issue
AR39-2	0.7983	$ 184,929	1.17%	1.28%	Not at issue
ARAVEC-1	1.7	$ 393,811	2.49%	2.73%	Not at issue
OK07-4	1.016	$ 235,360	1.49%	1.63%	OGP
OK27-1	0.023	$ 5,328	0.03%	0.04%	PL
OK35-1	3.543	$ 820,748	5.19%	5.68%	LPL TOU
OK35-2	21.47747	$ 4,975,331	31.47%	34.43%	LPL TOU
OK36-1	2.7	$ 625,464	3.96%	4.33%	PL TOU
OK36-2	13.137	$ 3,043,232	19.25%	21.06%	PL TOU
OK36-3	1.899	$ 439,910	2.78%	3.04%	PL TOU
OK39-1	1.65	$ 382,228	2.42%	2.65%	PL
OK39-2	2.843	$ 658,591	4.17%	4.56%	PL
OK39-3	2.47614	$ 573,606	3.63%	3.97%	PL
OK60-2	1.11	$ 257,135	1.63%	1.78%	LPL
RTP_OK35-2	0.08182	$ 18,954	0.12%	0.13%	LPL TOU
RTP_OK36-2	6.3	$ 1,459,417	9.23%	10.10%	PL TOU
		$ 14,449,602			

OG&E Response to OAEC 1-02

REVENUE_YEAR	Project ID	Transmission	Distribution	Total	In Service Date	CIAC
#N/A	15	$ 1,628,339.80	$ 4,095,024.32	$ 5,723,364.12	12/31/2017	-
2018	88	$ 1,519,838.27	$ 5,083,585.32	$ 6,603,423.59	5/31/2018	-
2019	104	$ 1,055,240.24	$ 2,953,909.74	$ 4,009,149.98	7/31/2018	639,831
2018	176	$ 796,011.76	$ -	$ 796,011.76	12/31/2017	-
2019	234	$ 6,000,234.88	$ 1,897,215.89	$ 7,897,450.77	2/28/2019	-
2019	236	$ 640,352.85	$ 2,640,677.39	$ 3,281,030.24	4/30/2018	293,792
2019	252	$ 110,502.55	$ 5,520,874.20	$ 5,631,376.75	4/30/2019	-
2019	297	$ 1,271,775.71	$ 4,768,202.81	$ 6,039,978.52	2/28/2019	17,000
#N/A	302	$ 195,995.42	$ 5,853,329.76	$ 6,049,325.18	12/31/2019	-
2020	316	$ 1,368,134.15	$ 2,106,199.61	$ 3,474,333.76	8/31/2019	-
2017	87/193	$ 1,165,996.20	$ 2,324,606.61	$ 3,490,602.81	7/31/2017	-
2017	148	$ -	$ 189,023.07	$ 189,023.07	8/31/2017	-
2020	171	$ -	$ 755,146.57	$ 755,146.57	6/30/2019	-
2020	173	$ -	$ 184,418.94	$ 184,418.94	9/30/2019	-
2017	179	$ -	$ 99,306.57	$ 99,306.57	3/31/2017	-
2017	212	$ -	$ 215,326.06	$ 215,326.06	11/30/2017	-
2018	245	$ -	$ 790,300.14	$ 790,300.14	6/30/2018	-
2018	261	$ -	$ 65,679.69	$ 65,679.69	12/31/2017	-
2019	298	$ -	$ 142,741.70	$ 142,741.70	9/30/2018	-
2018	325	$ -	$ 56,277.17	$ 56,277.17	5/31/2018	-
#N/A	336	$ -	$ 43,229.71	$ 43,229.71	3/31/2020	-
2019	372	$ -	$ 218,544.19	$ 218,544.19	3/31/2019	829
2020	475	$ -	$ 866,001.77	$ 866,001.77	2/28/2020	15,397
#N/A	498	$ -	$ 565,513.11	$ 565,513.11	11/30/2015	-
2022	594	$ -	$ 1,733,277.27	$ 1,733,277.27	9/27/2022	-
2023	966	$ -	$ 207,089.61	$ 207,089.61	6/27/2023	-
Total		$ 15,752,421.83	$ 43,375,501.22	$ 59,127,923.05		

Red indicates new since last rate case

CERTIFICATE OF SERVICE

I hereby certify that on the 3rd day of May, 2024 a true and correct copy of the above and foregoing was electronically served via the Electronic Case Filing System to those on the Official Electronic Case Filing Service List, to include the following persons:

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