BEFORE THE CORPORATION COMMISSION 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 201500273

Rebuttal Testimony

of

Ahmad Faruqui

on behalf of

Oklahoma Gas and Electric Company

April 11, 2016

I. INTRODUCTION

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

A. My name is Ahmad Faruqui. My business address is 201 Mission Street, Suite 2800, San Francisco, California 94105.

Q. **By whom are you employed and in what capacity?**

A. I am a principal with The Brattle Group where I lead the firm's practice in understanding and managing the changing needs of energy consumers.

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

A. I have an M.A. in agricultural economics and a Ph.D. in economics from the University of California at Davis, where I was a regents fellow, and a B.A. and M.A. degrees in economics from the University of Karachi, where I was awarded the gold medal in economics. I have taught economics at San Jose State University, the University of California at Davis and the University of Karachi.

I have 37 years of consulting and research experience in the utility industry. During my career, I have advised some one hundred and twenty five electric and gas utilities, regulatory commissions, government agencies, transmission system operators, private energy companies, equipment manufacturers and IT companies. Besides the United States, my clients have been located in Australia, Canada, Chile, Egypt, Hong Kong, Jamaica, Philippines, Saudi Arabia, South Africa and Vietnam. I have advised them on a wide range of issues including: rate design, load forecasting, demand response, energy efficiency, distributed energy resources, cost-benefit analysis of emerging technologies, integration of retail and wholesale markets, and integrated resource planning. I have testified or appeared before several state and provincial regulatory commissions and legislative bodies and authored or co-authored more than a hundred papers on energy economics. I have also co-edited three books on electricity pricing and customer choice.

More details regarding my professional background and experience are set forth in my Statement of Qualifications, included as Exhibit Faruqui-Direct-1.

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

A. My purpose is to rebut several points made by attorney general witness Jeff Daniels, PUD staff witness Kathy Champion, and TASC witness Mark E. Garrett on the rate design proposals that have been put forward by OGE.

Q. **Please summarize the main points of your rebuttal testimony.**

A. Contrary to intervener assertions, three-part rates (comprised of fixed, demand and energy charges) should be rolled out now, since they conform to the Bonbright criteria on rate design and since smart meters make such a rollout feasible. Such rates will eliminate cross subsidies between different groups of customers in the near term and incentivize changes in customer behavior and appliance buying habits over the long term. Two-part rates are an antiquated relic of the analog age, unsuited to the requirements of the digital age.

Q. **Are you sponsoring any exhibits?**

A. Yes. Exhibit 1 contains a simple model for computing cross subsidies caused by two-part rates.

Q. **Do you agree with PUD witness Champion's assertion that "While the interpretation of Bonbright's principles is often debated, PUD finds that the Company's proposal does not meet the principles of rate stability (often referred to as "gradualism"), fairness among customers, or efficiency.[1]"**

A. I disagree with that statement. I elaborate on the Bonbright principles and show how each of them is met by the Company's proposal. To begin, I provide an overview of Bonbright's thinking on rate design and show that he favored three-part rates.

Q. **What were professor Bonbright's views on rate design?**

A. Professor Bonbright was a strong opponent of volumetric rates since they treat "the total cost of the business as if it varied directly with changes in in the kilowatt-hour output of

[1] Champion, p.7

energy – a grossly false assumption – it violates the most widely accepted canon of fair pricing, the principle of service at cost."[2] He believed that three-part rates mirrored the structure of utility costs and cited their widespread deployment to medium and large commercial and industrial rates.[3] Bonbright cites the earlier text by the British engineer D. J. Bolton,[4] who states: "More accurate costing has shown that, on the average, only one-quarter of the total costs of electricity supply are represented by coal[5] or items proportional to energy, while three-quarters are represented by fixed costs or items proportional to power, etc. If therefore only one rate is to be levied it would appear more logical to charge for power and neglect the energy, were it not for certain practical difficulties of which the following are two. In the first place the effective power demand on the system made by any particular consumer is extremely difficult to estimate, and is very different from the individual maximum demand metered at the consumer's terminals. Secondly, a purely power tariff would probably lead to a waste of energy to a greater extent than a purely energy tariff leads to waste of power. "[6] Of course, with the arrival of smart meters, customer demand at times of system and distribution peak can be accurately recorded. And the choice is no longer a binary one of imposing either a demand-only rate or an energy-only rate. The time is ripe for deploying a three-part pricing structure that better reflects the cost of providing electric services in the OG&E service territory. Interestingly, when Bonbright discusses a two-part rate structure, he is referring to what he characterizes as "the two most important cost functions of an electric-utility system"[7]-- demand and energy charges. When he moves into a discussion of three-part rate structures, he adds truly fixed charges, customer charges, to the two-part

[2] James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, Principles of Public Utility Rates, Second Edition, Public Utility Reports, Inc., 1988, p. 397.
[3] James C. Bonbright, *Principles of Public Utility Rates*, Columbia University Press, 1961.
[4] Bonbright says that "On many technical issues, no American treatise on electric utility rates can equal that by the distinguished British rate engineer D. J. Bolton." Page 289, n. 3.
[5] Coal was the dominant fuel for generating electricity in the United Kingdom in 1938 when the book was first published.
[6] D. J. Bolton, *Costs and Tariffs in Electricity Supply*, Chapman & Hall Ltd., 1951, p. 59.
[7] Bonbright, p. 310.

rate concept. Beginning on page 346, three-part rates are discussed extensively in the Bonbright canon.[8]

Q. **Please explain what is meant by the rate design principle of stability?**

A. Professor Bonbright says that rates should be stable and predictable. He does not say that rate structures should remain frozen in time. As PUD witness Ms. Champion states, "Rates should have a minimum of unexpected, adverse changes". The rate design changes proposed by OG&E are taking place within a General Rate Case. These are the first changes to OG&E's residential rate structure of their kind in 19 years, when in PUD 960000116 the shoulder season was added, and 10 years ago, in PUD 200500151, when the inclining tail block was added to summer rates. This is true for not just OG&E, but for utilities across the country, where two-part rate structures are yielding to three-part rate structures to meet the demands of a digital era. There is an ineluctable movement towards cost-reflective rates because of the rollout of smart meters and the increased availability and customer adoption of a wide range of digital end-use technologies such as smart appliances, smart thermostats, home energy management systems, battery storage systems, electric vehicles and rooftop solar panels. The rate changes proposed by the Company will make future rates more stable and predictable since changes in the utility cost structure will flow through to customers as they happen, rather than accumulating to a breaking point, where major rate changes are necessary to address historical tariff inadequacies.

Q. **PUD witness Champion and OAG witness Daniel state that if such rate changes are to happen they should occur gradually.[9] PUD witness Champion cites presentations from both you and your colleague at Brattle, Ryan Hledik in support of that point.[10] Do you agree with her interpretation of your work?**

[8] Bonbright, second edition, page 401, credits Doherty with extending the Hopkinson two-part rate into a three part rate. Henry L. Doherty, "Equitable, Uniform and Competitive Rates," Proceedings of the National Electric Light Association, 1900, pp. 291-321.

[9] Champion, pp.9-10 and Daniel p.14 and p.21

[10] Champion, pp.9-10

A. Ms. Champion appears to have taken our presentations out of the context in which they were written and presented. I do not think that a gradualist approach is needed here for two reasons:

1. The proposed demand charge of $2.75 is low when compared to demand charges in other jurisdictions (see Figure 3 of Ahmad Faruqui Direct Testimony). Lowering the demand charge any further could dilute its ability of the demand charge to be cost-reflective.
2. Customers have rate choice and can opt out of the three-part rate if they do not like it. The rate is not "mandatory" as Ms. Champion claims[11]. Customers who wish to avoid demand charges can choose from two different time varying rates, or even a fixed bill option, where they pay the same amount each month irrespective of their actual energy and demand. In other words, there are plenty of rate choices for customers.

Furthermore PUD witness Champion advocates gradualism as a mechanism to protect low income and vulnerable customers.[12] OG&E is already protecting lower income customers with a monthly bill credit of $10 through its low income assistance program ("LIAP") rider. Witness Champion equates low income customers with the low usage customer group that is adversely affected by the new tariff design. This is not correct. OG&E's response to the data request AG 8-13 showed that LIAP participants used 13,242 kWh for the test year, or 1,103 kWh per month; the corresponding number for the average residential customer, as can be determined in H-2, was 13,179 kWh for the test year, or 1,098 kWh per month[13]. In other words, LIAP participants used slightly more electricity than the average residential customer.

Q. **Please explain what is meant by the rate design principle of fairness?**

A. In my opinion, fairness means that equal customers face equal treatment. This is focused on process, not outcome and does not mean social justice or other interpretations of

[11] Champion p.11
[12] Champion p.10
[13] H-2 tab "OKKWH" cell L14 divided by (H-2 tab "OKCUST" cell F15/12)

fairness. Low usage customers have been treated in the same manner as all other residential customers in designing OG&E's proposed rate. This is fair.

Q. **Please explain what is meant by the rate design principle of efficiency?**

A. A broad reading of the text by Bonbright suggests that he means economic efficiency and not just energy efficiency when he talks about efficiency. This means using resources in the least wasteful way possible. If a product is being consumed by someone who values that product at less than it costs to produce, then that consumption is wasteful and society would be better off on aggregate redeploying those resources elsewhere. In a decentralized market economy, prices are used to guide efficient resource use. Thus if a good is priced correctly, consumers who value it at less than its cost will not purchase it and an efficient outcome is achieved. In discussions about electricity consumption, the conversation often focuses on just one dimension of economic efficiency – energy conservation, which entails reducing the amount of electricity consumed. However there are other dimensions, where electricity consumption may be very inefficient, such as in demand. If capacity is essentially given away free, then customers, who may place a very low value on capacity, will consume it, even if its cost to society (ultimately them and other customers) is very high.

Q. **Does OG&E's new rate satisfy this principle?**

A. Yes, it is an improvement on the previous rate regime since it does a better job of matching prices to the costs of providing electric service. Demand charges remind customers of the load they are placing on the grid at any time of day.

Q. **Is there any evidence to show that residential customers find demand charges unacceptable or unattractive, as argued by TASC witness Garrett?**[14]

A. Not to my knowledge. In Arizona Public Service Company's service area, almost 120,000 customers, or 10% of the customer base, have opted into demand charges. Perhaps Mr. Garrett's is not aware of this widespread deployment. For the most part,

[14] Garrett, p.27

residential customers tend to accept the default rate, with only small percentages of customers moving away from the default. This result generally holds irrespective of what the default actually is. In this context, having 10% of customers opt-in to a rate, when there are also other rate choices on the table, is quite an achievement and reflects that this is a popular rate choice.

Q. **Are demand charges becoming more prevalent in residential rate design?**[15]

A. Yes. Arizona Public Service has offered an opt-in three-part rate since the 1980s. Approximately 10% of APS's residential customers are enrolled in the rate, representing roughly 20% of residential sales. In the past five years, utilities in Alabama, Arizona, Alaska, Colorado, Georgia, Minnesota, North Carolina, South Carolina, South Dakota, Vermont, Virginia, and Wyoming have introduced demand charges for residential customers. Overall, these utilities serve over eleven million residential customers.

Since late 2013, Georgia Power has offered an optional three-part rate to residential customers, featuring a demand charge of $6.53 per kW. Effective January 1, 2016, Georgia Power has slightly increased its demand charge to $6.64 per kW.

Salt River Project, a political subdivision serving over 800,000 customers in Arizona, has introduced a mandatory three-part rate for DG customers effective October 2015. SRP's three-part rate features a demand charge that varies both by season and by the customer's demand. In the summer months, the demand charge equals $9.59 per kW up to 3 kW, $17.82 per kW for the next 7 kW, and $34.19 per kW for demand in excess of 10 kW.

Duke Energy Carolinas also offers a three-part rate to both its North Carolina and South Carolina customers, effective July 2015 and October 2015 respectively. The three-part rate in North Carolina features a $7.77 per kW demand charge in the summer months and a $3.88 demand charge in the winter months. Similarly, the three-part rate in South Carolina features an $8.15 per kW demand charge in the summer months and a $4.00 demand charge in the winter months. Duke Energy serves over two million customers combined in the Carolinas.

[15] Garrett, p.26

There a number of electric cooperatives that also offer demand charges to residential customers as part of their three-part rates. Butler Rural Electric Cooperative in Kansas, Dakota Electric Association in Minnesota, Mid-Carolina Electric Cooperative in South Carolina, and Midwest Energy, Inc. in Kansas all offer demand charges to their residential customers. In the case of Butler and Mid-Carolina, the demand charges are mandatory.

Q. **TASC witness Garrett says that customers are being forced to choose between a three-part rate design and a time-variant rate. Is this true?[16]**

A. No, this is not true. In fact, customers have the option of paying a fixed monthly bill, which would allow them to pay the same amount every month, irrespective of usage. TASC witness Garrett goes on to say that he is not aware of any utility that has default time-varying rates. This is surprising. The entire province of Ontario in Canada and the entire nation of Italy are on default Time of Use (TOU) rates. The state of Maryland has default Peak Time Rebate (PTR) and California's Public Utilities Commission is considering moving to default TOU for its investor owned utilities in 2019.

Q. **Is the point of residential demand charges to facilitate demand reductions for all customers?[17]**

A. No. The point of demand charges is to create rates that accurately reflect the cost of service. Customers have different tastes and budgets. Based on their individual preferences for risk, conservation and convenience, they can then make a variety of decisions. Some customers will choose to actively manage their demand through behavioral change by not running all their high demand appliances simultaneously. Others may invest in simple technologies like load controllers. Others still may choose to ignore the demand signal and pay a premium for convenience or switch to a flat bill option that reduces bill risk. However, customers are only able to make good decisions when faced with cost reflective rates. In the case of OG&E, price responsive customers may choose to take service on the SmartHours program.

[16] Garrett, p.21
[17] Garrett, p.23

Q. **Why are demand charges becoming more prevalent in residential rate design?**

A. Demand charges have always been seen as an essential part of electric rate design and have been widely deployed for commercial and industrial customers. However, their application to residential customers has been hampered by lack of appropriate metering technology. The advent of smart meters, which can measure demand as well as energy, means that this cost is essentially reduced to zero. This creates the opportunity for demand charges to be instituted. Technological change has also created a push towards demand charges as utilities have realized that the current business models that have prevailed in the last century have been rendered obsolete and need to be replaced. A key ingredient in modernizing utilities is modernizing electric rate design and there is no better way to carry out that modernization other than to deploy cost-reflective rates.

Q. **PUD witness Champion says that two-part rates do not create cross-subsidies between customers.[18] Do you agree?**

A. No. Two part rates create cross subsidies between customers and that subsidy can be large. To make my point, I have created a simplified example to show that they do create cross-subsidies. For illustrative purposes, take the example of Utility "X".

Table 1: Characteristics of Utility X

Input	Value	Units
Revenue Requirement	120,000,000	($/yr)
Households	100,000	(households)
Average Usage		
Low-users	500	(kWh/mo)
Standard-users	1,000	(kWh/mo)
High-users	1,500	(kWh/mo)

Utility X is authorized to collect $120 million in revenue per year and serves 100,000 households. Of these households, some are low-usage households, standard-usage, and high-usage.

[18] Champion, 14.

Utility X collects its revenue requirement from customers with a two-part rate. Under its two-part rate, the utility collects ten percent of its revenue requirement with a fixed charge and ninety percent with a variable energy charge. However, the structure of Utility X's costs differs from its revenues. Fixed costs account for seventy-five percent of X's total costs and its variable costs make up the remaining twenty-five percent.

Table 2: Revenue and Cost Structure of Utility X

	Revenue Structure	Cost Structure	Rate	Cost
Fixed	10%	75%	$10 / mo	$75 / mo
Variable	90%	25%	$0.09 / kWh	$0.025 / kWh

Table 3 demonstrates how Utility X's two-part rate structure can create a cross-subsidy when households vary in consumptive use. The source of the cross-subsidy primarily comes from low-usage customers' underpayment of fixed costs and high-usage customers' overpayment of variable energy costs.

Table 3: Illustration of a Cross-Subsidy Under a Two-Part Rate

Customer Class	Monthly Usage (kWh)	Fixed ($/mo)	Variable ($/mo)	Monthly Bill ($/mo)	Yearly Bill ($/yr)	Number of Households	Total to Utility ($/yr)
Standard household	**1,000**					**33,333**	
Revenue		10	90	100	1,200		40,000,000
Cost		75	25	100	1,200		40,000,000
Over (Under) Payment		(65)	65	-	-		-
Low-usage household	**500**					**33,333**	
Revenue		10	45	55	660		22,000,000
Cost		75	13	88	1,050		35,000,000
Over (Under) Payment		(65)	33	**(33)**	(390)		**(13,000,000)**
High-usage household	**1,500**					**33,333**	
Revenue		10	135	145	1,740		58,000,000
Cost		75	38	113	1,350		45,000,000
Over (Under) Payment		(65)	98	**33**	390		**13,000,000**
Total		**(195)**	**195**	-	-	**100,000**	**120,000,000**

Table 3 reveals that a cross-subsidy of $13 million per year occurs between high-usage and low-usage customers. This cross-subsidy amounts to more than ten percent of Utility X's yearly revenue requirement.

In the above example, Utility X only faces two types of costs (fixed and variable). However, utilities also face demand-related costs.

Table 4 shows an amended revenue and cost structure for Utility X that considers demand-related costs.[19]

Table 4: Revenue and Cost Structure for Utility X (Including Demand)

	Revenue Structure	Cost Structure	Rate	Cost
Fixed	10%	25%	$10 / mo	$75 / mo
Variable	90%	25%	$0.09 / kWh	$0.025 / kWh
Demand	0%	50%	-	9.52 / kW

When demand-related costs are considered in a two-part rate evaluation, cross-subsidization between customer classes is also present. In this example, both low-usage and high-usage customers are subsidized by standard-usage customers. Low-usage customers benefit from a cross-subsidy for the same reason in the previous example. The revenue from their low monthly usage does not balance with the fixed costs and demand-related costs required to serve them. Regarding high-usage customers, Utility X collects a significant share of revenue from their high monthly usage. However, this amount is not enough to make up for the high demand they place on the grid and their underpayment of fixed costs. As a result, standard-usage customers are on the hook for the subsidies to low and high-usage customers.

[19] Low-usage customers' demand is assumed to be 2.25 kW, standard-usage demand is assumed to be 4.50 kW, and high-usage is assumed to be 9.00 kW. These assumptions can be modified in Exhibit 1.

Table 5: Illustration of Cross-Subsidization Under a Two-Part Rate (Including Demand)

Customer Class	Monthly Usage (kWh)	Fixed ($/mo)	Variable ($/mo)	Demand ($/mo)	Monthly Bill ($/mo)	Yearly Bill ($/yr)	Number of Households	Total to Utility ($/yr)
Standard household	**1,000**			**4.50**			**33,333**	
Revenue		10	90	-	100	1,200		40,000,000
Cost		25	25	43	93	1,114		37,142,857
Over (Under) Payment		(15)	65	(43)	**7**	86		**2,857,143**
Low-usage household	**500**			**2.25**			**33,333**	
Revenue		10	45	-	55	660		22,000,000
Cost		25	13	21	59	707		23,571,429
Over (Under) Payment		(15)	33	(21)	**(4)**	(47)		**(1,571,429)**
High-usage household	**1,500**			**9.00**			**33,333**	
Revenue		10	135	-	145	1,740		58,000,000
Cost		25	38	86	148	1,779		59,285,714
Over (Under) Payment		(15)	98	(86)	**(3)**	(39)		**(1,285,714)**
Total		**(45)**	**195**	**(150)**	**(0)**	-	**100,000**	**120,000,000**

I have provided this illustrative cross-subsidy model as Exhibit 1, which also includes details on how cross-subsidization can be alleviated by appropriately matching Utility X's rates with its cost of service.

Q. **Do you agree with PUD witness Champion that demand charges are the same as fixed charges?**[20]

A. No. Demand charges cannot be equated with fixed charges, which can only be avoided by disconnecting from the grid. By definition, customers can reduce their demand charges by reducing their demand. Indeed, with demand charges co-existing with energy charges, customers have two ways of reducing their bill. One, by reducing their demand. And, two, by reducing their energy consumption.

Q. **Do you agree with PUD witness Champion that customers cannot respond to demand charges?**[21]

A. No. Let us consider her example of a customer that has a demand of 6 kW. It is easy to show to that customer which loads comprise the bulk of her maximum load and to inform her about the multiple ways in which she can reduce her maximum demand. She will soon realize that the bulk of the 6 kW number is coming from large appliances and the

[20] Champion, p. 8.
[21] Champion, p. 18.

central air conditioner and not from lighting or TV's or cell phone chargers. To lower demand, all she has to do is to ensure that she is not running her major appliances simultaneously, and, if she wishes, by raising her thermostat by a degree or two. In other words, customers on demand charges will have an incentive to look for ways through which to reduce demand, thereby effectuating the concept of "dynamic efficiency" which is cited by Professor Bonbright in the second edition of his text.

Q. **Do you agree with PUD witness Champion that pilots need to be conducted before demand charges are rolled out?**[22]

A. I don't believe pilots are needed for rolling out demand charges. The primary issue is not whether customers will respond to demand charges or not. That is a secondary issue. The primary issue is the accurate reflection of costs in rates. Deployments of demand charges in other parts of the country have established that customers can comprehend demand charges. Their understanding does not need to be tested one more time.

Q. **Do you agree with PUD witness Champion that the proposed rate change will have a negative effect on customer decisions related to energy efficiency?**[23]

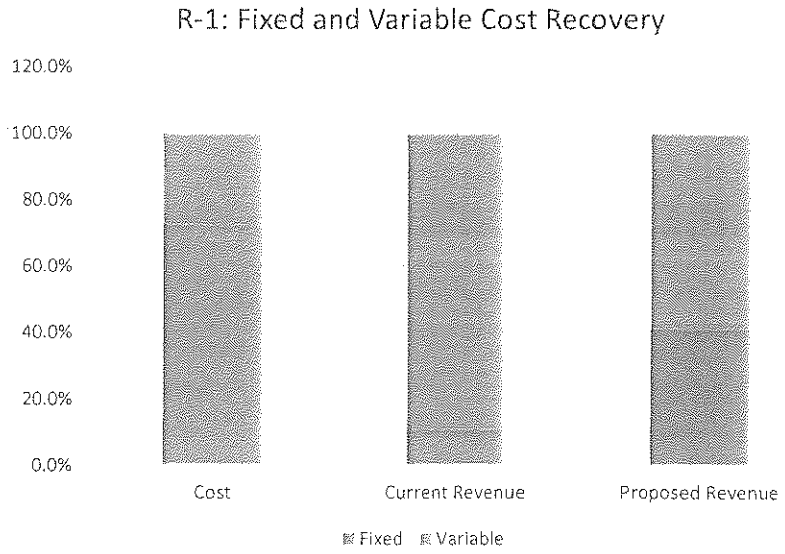
A. No. There is no economic reason to over incentivize energy efficiency through electricity prices, beyond the Demand Programs that are already being offered by OG&E. They key concept which should underpin the pricing of electricity is the promotion of economic efficiency and that is achieved by basing prices on costs. Consider the market for cars. Gasoline prices have fallen dramatically in the past two years. That diminishes the interest in buying fuel efficient cars, since falling gasoline prices have lengthened the payback period on highly fuel efficient cars, hybrid cars and electric vehicles. But, it would make no sense to artificially raise gasoline prices just to preserve the incentive for fuel efficiency in automobiles. Furthermore, if someone bought a highly fuel efficient car two years ago when the price of gasoline was in the $4/gallon range, it will now take them longer to recoup their incremental investment in energy efficiency since prices are now in the $2/gallon range. But that is just the way a market economy works.

[22] Champion, p. 21
[23] Champion, p. 16.

Q. **Do you agree with PUD witness Champion that no major changes should be made in rate design at this point in time?**[24]

A. No. I believe we have waited for a century to restore cost reflectivity in rate design. This is the time to move ahead and make the change, now that smart meters have made that change feasible for residential customers. For the continued viability of the utility system, tariffs need to more accurately reflect the manner in which costs are incurred. Studies have shown that a very large portion of a utility's costs are fixed but that a very small portion of its revenues are fixed. For example, as shown in the graph below for the standard residential rate R-1, the COS data shows that 72.6% of the costs are fixed. The current R-1 rate only collects 11.2% of the revenue through a customer charge. The company's proposed R-1 collects 21.9% of the revenue through a customer charge and 19.4% through a demand charge. There is misalignment between cost structure and revenue structure and this misalignment has persisted for the better part of a century in residential tariffs. Consequently, incorrect price signals are being transmitted to customers, leading to suboptimal energy using behavior on the part of customers in the short term and to inefficient appliance manufacturing and purchase decisions in the long term. As discussed earlier, some customers are overpaying for electricity under current two-part tariffs and some are underpaying for it. Three-part tariffs are the only mechanism for eliminating these cross-subsidies.

[24] Champion, p. 22.



Q. **What are your conclusions about OG&E's rate design proposals?**

A. I recommend that the Commission approve the proposed revisions to the R-1 rate which is largely volumetric in nature and does not reflect the cost structure of delivering electricity to customers. That, as Bonbright puts it, is the most widely accepted canon of fair pricing, the principle of service at cost. Consequently, it sends out inefficient price signals while also creating inequities among residential customers. The R-1 rate has outlived its usefulness and it is time to replace it or be subject to what Bonbright termed "the tyranny of the status quo."[25] The proposed rate is progressive and forward-looking and satisfies the Bonbright criteria of efficiency and equity. Customers will have a choice of staying on the new standard rate or switching over to one of the time-varying, two-part rates, or a fixed monthly charge. The proposed new rate is clearly laid out in terms that should be understandable to residential customers. In sum, the Company's proposal should be approved, since it takes into consideration the principles of rate stability, efficiency, equity, as well as the principles of simplicity, understandability, public acceptability and feasibility of application.

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

A. Yes, it does.

[25] James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, Principles of Public Utility Rates, Second Edition, Public Utility Reports, Inc., 1988, p. 187.