

**BEFORE THE STATE CORPORATION COMMISSION  
OF THE STATE OF KANSAS**

Received  
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State Corporation Commission  
of Kansas

**In the Matter of the Application of )  
Mid-Kansas Electric Company, LLC )  
For Approval to Make Certain Changes )  
In its Charges for Electric Service in the )  
Geographic Service Territory Served by )  
Southern Pioneer Electric Company. )**

**Docket No. 12-MKEE-380-RTS**

**DIRECT TESTIMONY  
PREPARED BY  
ROBERT H. GLASS, PHD  
ON BEHALF OF  
UTILITIES DIVISION  
KANSAS CORPORATION COMMISSION  
April 23, 2012**

1 **STATEMENT OF QUALIFICATIONS**

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

3 **A.** Robert H. Glass, Kansas Corporation Commission, 1500 S.W. Arrowhead Road, Topeka,  
4 Kansas, 66604-4027.

5 **Q. What is your position at the Kansas Corporation Commission (“Commission”)?**

6 **A.** I am employed as Chief of Economics and Rates.

7 **Q. Please describe your qualifications.**

8 **A.** I have a B.A. from Baker University with a major in history. I have an M.A. and a Ph.D.  
9 in economics from the University of Kansas. For 22 years prior to my employment at the  
10 Commission, I was employed at the University of Kansas by the Institute for Business  
11 and Economic Research, which later became the Institute for Public Policy and Business  
12 Research. My primary duty was performing economic research.

13 **Q. Have you previously testified before the Commission?**

14 **A.** Yes. I provided testimony as a Staff consultant for Docket No. 91-KPLE-140-SEC and  
15 for Docket No. 97-WSRE-676-MER. As an employee at the KCC, I have testified in  
16 Docket Nos. 06-KCPE-828-RTS, 06-KGSG-1209-RTS, 07-WSEE-616-PRE, 08-WSEE-  
17 309-PRE, 08-WSEE-1041-RTS, 09-WSEE-641-GIE, 10-KCPE-415-RTS, 11-WSEE-  
18 377-PRE, 11-KCPE-581-PRE, and 12-WSEE-112-RTS.

1 **INTRODUCTION**

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

3 **A.** The purpose of my testimony is to provide Staff's proposed rate design.

4 **Q. What are your major recommendations?**

5 **A.** (1) Accept KCC-CCOS methodology as a basis for determining class revenue  
6 requirements and subsequent rate design; (2) Approve Southern Pioneer's class billing  
7 determinants and weather normalization; and (3) approve my rate design based on a total  
8 revenue increase of \$2, 879,566.

9 **FOUNDATIONS FOR RATE DESIGN**

10 **Q. What are the two foundations underlying most rate designs?**

11 **A.** Two of the foundations of most rate designs are the billing determinants and the class  
12 cost of service (CCOS). Below I discuss why Staff has accepted Southern Pioneer's pro  
13 forma billing determinants. After discussing the billing determinants, I next discuss the  
14 use of the CCOS in rate design and then illustrate how it affects the beginning point for  
15 the allocation of revenue requirement between customer classes. Staff's CCOS is  
16 sponsored by Elena Kanaeva-Larson in her direct testimony.

17 **Billing Determinants**

18 **Q. Please explain the source of billing determinants and why they are important in a**  
19 **rate case.**

1 A. Billing determinants consist of all the data needed to generate existing and proposed  
2 revenues. They include the number of customers, demand, and annual volumes used by  
3 rate block, along with the tariff rates necessary to generate existing and proposed  
4 revenues. Billing determinants are essential to constructing a proof of revenue which  
5 provides a way to measure the revenue change generated between existing rates and  
6 proposed rates.

7 **Q. Did Southern Pioneer propose billing determinants?**

8 A. Yes. In Richard Macke's direct testimony, and in the attachments to that testimony,  
9 Southern Pioneer's adjusted customer annualization and kWh weather normalized  
10 consumption are presented.

11 **Q. Does Staff accept the billing determinants proposed by Southern Pioneer?**

12 A. Yes. After extensive review of the customer annualization and the kWh weather  
13 normalization, Staff accepts Southern Pioneer's estimates because of the data limitations  
14 discussed below. First, I will review Southern Pioneer's customer annualization, and  
15 then I will review Southern Pioneer's weather normalization of energy usage.

16 Customer Annualization

17 Mr. Macke states on page 13 of his direct testimony, "The pro forma average number of  
18 consumers is based on the number of consumers as of December 2010." In his response  
19 to Data Request No. 117, Mr. Macke further explains,

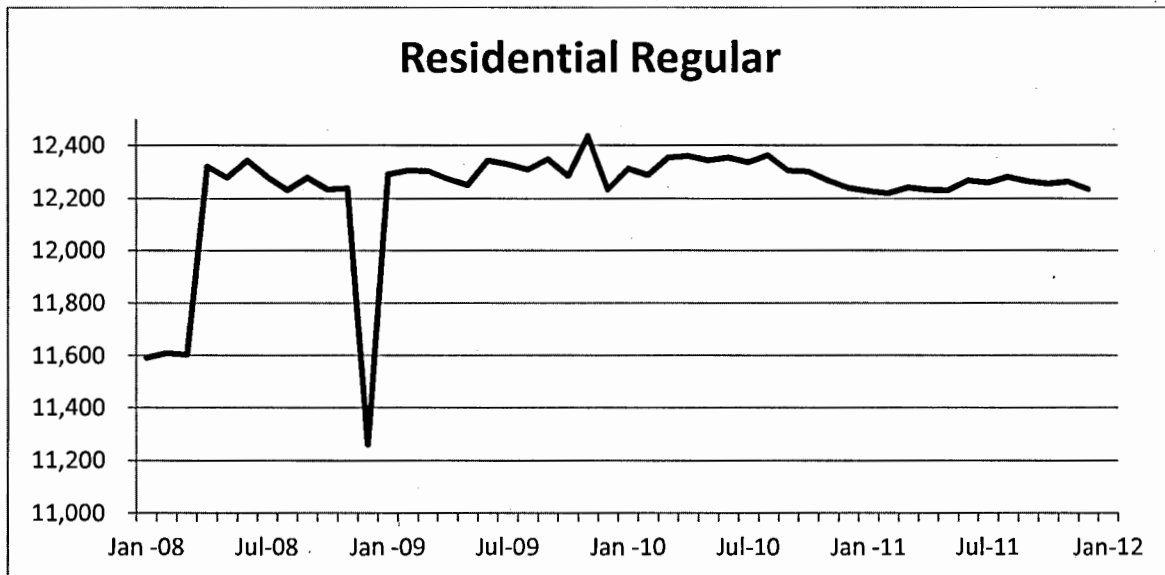
20 The December customer count is the most appropriate to be used because it  
21 incorporates the known and measurable changes in the number of customers that

1 occurred during the historical period of 2010. Using an average or a prior  
2 month would not reflect the known and measurable changes in the number of  
3 customers.<sup>1</sup>

4 Although this might not appear to be a convincing argument, in this particular case, a  
5 closer look at the data indicates the correctness of this statement in this unique  
6 circumstance. Below are two graphs of Residential Regular and Residential Heating  
7 customer counts that provide examples of why using the December 2010 customer count  
8 is the best estimator of the future customer count. Exhibit RHG-1 contains similar graphs  
9 for the other major customer classes.

10

Figure 1

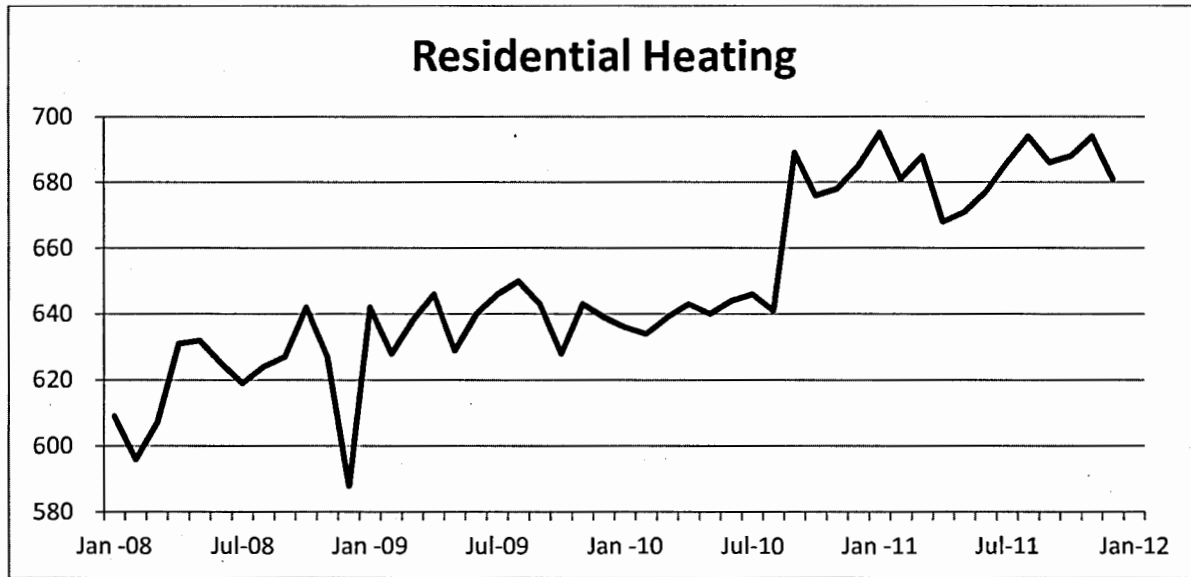


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<sup>1</sup> Macke used the December 2010 customer count to annualize the customer count except for the irrigation customer class. For this class, he used the average customer count. Given the uniqueness and habits of the irrigation class, the choice of the average customer count seems a reasonable choice for that class.

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Figure 2



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First, it should be noted that there is some data available for 2007 but it looks a little strange. Second, even the data for 2008 does not look completely reliable (notice the server spikes at the end of 2008). This leaves three years of adequate data – 2009, 2010 (the test year), and 2011. Besides the fact that there are only three years of adequate data, the shift in usage sometime in the summer of 2010 makes the use of a mean to forecast future customer counts ineffective. Visual inspection of the two graphs suggest that the December 2010 customer count is about as good an estimate as any other obvious method such as taking the mean for 2011.

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#### Weather Normalization of Energy Usage

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Weather normalization of energy usage data is also limited by the lack of available data. To compensate for the lack of data, Mr. Macke used a panel regression technique that took advantage of the fact that the other members of Mid Kansas Electric Corporation (MKEC) are similar in structure with similar basic customer classes. The results of that panel regression seem reasonable.

1           However, the use of the panel regression means that the heating classes  
2           (Residential Space Heating and General Service Space Heating) could not be separated  
3           from the Residential General Use, General Service Small, and General Services Large  
4           classes. For example, Residential General Use winter energy use and Residential Space  
5           Heating winter energy use would seem to have different intensities in their responses to  
6           cold weather and simply prorating between the two classes, based on per capita energy  
7           usage, misses this obvious effect. While there is data separating out the two residential  
8           sub-classes of customers, it is only available for four years, which is probably not enough  
9           data to forgo the advantages of using the panel regression technique. Since, the space  
10          heating sub-class is slightly greater than five percent of the total residential class, the  
11          error caused by this omission is probably negligible.

12          Class Cost of Service

13          **Q.    Please explain why class cost of service is merely a starting point for rate design.**

14          **A.    The CCOS provides a starting point for rate design but is not the sole mechanism for**  
15          **assigning rates to customer classes. To understand why it is the starting point and not the**  
16          **sole mechanism for designing rates requires a brief discussion of the strengths and**  
17          **weaknesses of CCOS.**

18                 The strength of using a CCOS as a starting point for rate design is that the CCOS  
19                 reflects the cost-causer approach to rate design. The CCOS study allocates costs of  
20                 service to each of the rate classes; thus, it broadly tells the rate analyst how much cost of  
21                 service each customer class causes. Using CCOS as a starting point for rate design  
22                 means that rate design begins with the principle that rates should reflect cost causation.



1 Columns three and five contain the relative CCOS allocation of the revenue requirement  
2 between customer classes by Southern Pioneer (column three) and Staff (column five).  
3 The reason that columns two and four do not sum to the same total is because Southern  
4 Pioneer and Staff have different revenue requirements. The reason for the similarity in  
5 the relative allocations is because Staff and Southern Pioneer used the same basic model.  
6 Thus, if the difference between the revenue requirements of Staff and Southern Pioneer is  
7 taken into account, then the rate designs of Staff and Southern Pioneer should also look  
8 similar.

9 **RATE DESIGN**

10 **Q. What elements are integral in the development of a sound rate structure?**

11 **A.** The basics of a complete and comprehensive rate design includes the following: (1) rates  
12 should be designed to generate the company's revenue requirement in normal weather  
13 and under normal operating conditions; (2) rates should produce stable and predictable  
14 revenues for the company without causing serious or harmful changes to its ratepayers;  
15 (3) there should be no undue discrimination among rate payers with similar types of  
16 service; (4) rates should be designed to promote efficiency and discourage wasteful use  
17 of energy; and, (5) rates should be designed with characteristics such as simplicity, public  
18 acceptability, ease of application, and understandability.<sup>2</sup>

19 **Q. Before you stated that the CCOS was the starting point for rate design. How have**  
20 **you incorporated the CCOS in Staff's rate design?**

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<sup>2</sup> Principles of Public Utility Rates, James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, Public Utilities Reports, Inc. March 1988, Pages 383-384.

1 A. I began with the Staff Class Cost of Service Revenue Requirement Allocation which is  
2 column four of Table 1 above. In Table 2 below this becomes column three. If I had  
3 solely used the CCOS Revenue Requirement Allocation to allocate revenue requirement  
4 the result would have been radically different increases (and in some cases decreases) in  
5 rates. For example, the Residential Class has two different sub-classes: Residential  
6 General Use and Residential Space Heating. The CCOS would have allocated an 18.1%  
7 increase to the space heating sub-class but only a 7.8% increase to the general use sub-  
8 class. Small General Service would have gotten a 35.8% rate increase while the  
9 Industrial Class would have gotten a 4.1% rate increase. Moreover, some classes, such as  
10 Water Pumping Service, would have received a rate decrease.

11 **Table 2**

Staff Proposed Revenue Requirement Allocation				
Rate Class	Existing Rates	Cost of Service Allocation of Revenue Requirement	Staff's Proposed Allocation for Rate Design	% Change Existing vs. Proposed Rate Design
Column Number	(2)	(3)	(4)	(5)
Residential (04-RS)	\$ 13,641,898	\$ 14,710,767	14,720,115	7.9%
Residential W/Space Heat (04-RS)	\$ 810,579	\$ 957,665	929,851	14.7%
GS Small (04-GSS)	\$ 1,642,541	\$ 2,230,251	1,869,283	13.8%
GS Large (04-GSL)	\$ 13,562,804	\$ 14,264,161	14,625,693	7.8%
GS Large W/Space Heat (04-Rider 1)	\$ 500,723	\$ 541,889	541,012	8.0%
Industrial (04-IS)	\$ 1,818,321	\$ 1,893,507	1,900,145	4.5%
Municipal Power (04-M-I)	\$ 178,344	\$ 230,441	210,448	18.0%
Water Pumping (04-WP)	\$ 580,071	\$ 576,731	609,080	5.0%
Irrigation (04-IP-I)	\$ 186,375	\$ 189,478	195,691	5.0%
Temp Service (04-CS)	\$ 7,616	\$ 6,920	7,616	0.0%
Lighting (PAL-SL-I, DOL-I) (PAL-I, SL-I)	\$ 791,578	\$ 919,420	912,304	15.3%
Total	\$ 33,720,850	\$ 36,521,230	\$ 36,521,239	8.3%

12  
13 In order to reduce the rate shock to some customers, I adjusted the CCOS Revenue  
14 Requirement Allocation. The adjusted revenue requirement allocation is column four of  
15 Table 2. Column five of the same table has the percentage change from the existing rate  
16 design to Staff's proposed rate design and shows how the rate increases were moderated

1 by the adjustment. For example, the Residential General Service allocation increased  
2 from 7.8% to 7.9%, while Residential Space Heating allocation declined from 35.8% to  
3 14.7%.

4 **Q. By moving away from the CCOS Revenue Requirement Allocation aren't you**  
5 **moving away from the cost-causer principle in rate design?**

6 **A.** I have not moved significantly away from the CCOS allocation. In the case of all classes  
7 and sub-classes, except for the Small General Service Class and the Temporary Service  
8 Class, the adjustment to the CCOS allocation was less than 10%. In the case of the  
9 Temporary Services Class the increase in allocated revenue requirement was slightly less  
10 than \$700 or 10.06%. Given the earlier discussion of the significant level of  
11 approximation involved in CCOS, staying within a 10% band of the CCOS revenue  
12 requirement allocation is maintaining the cost-causer principle.

13 In the case of the Small General Service Class, the change was significantly  
14 more—a reduction of the allocated revenue requirement of 16.2%. The justification for  
15 the significant reduction in revenue requirement for the Small General Service Class is  
16 simply economic development. The city of Liberal, the major city in the Southern  
17 Pioneer service area, lost 16.3% of its non-farm wage and salary establishment  
18 employment from 2007 to 2009.<sup>3</sup> The economy in Seward County, the county that  
19 Liberal is located in, has improved since 2009 and 2010. But the level of employment  
20 has not returned to the levels in 2007 and 2008 and the number of unemployed persons is  
21 still 50% higher than in 2007 and 2008.<sup>4</sup> Thus, a 35.8% increase for the Small General

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<sup>3</sup> Bureau of Labor Statistics available at <http://www.bls.gov> (last visited April 22, 2012).

<sup>4</sup> *Ibid.*

1 Service Class seems uncalled for at this time. But because of the cost-causer principle  
2 that class should have some rate increase.

3 **Q. Have you followed the five elements integral in the development of a sound rate**  
4 **design that you mentioned earlier?**

5 **A.** Yes. As Table 2 above shows, the revenue requirement would be expected to be  
6 collected with Staff's rate design with an extra \$9.00 thrown in. This covers the first  
7 principle—cost recovery. Staff's expects the rate design to collect these revenues as long  
8 as the billing determinants the rates are based on remain relevant. And because of Staff's  
9 adjustment of the allocation, the rate increases are relatively moderately spread among  
10 the rate classes. Also, since the cost-causer principle was the starting point for the rate  
11 design, and the revenue requirement allocation did not stray very far from the CCOS  
12 allocation, the rate design should not produce any undue discrimination among rate  
13 payers with similar types of service. Energy efficiency and conservation will be dealt  
14 with later. Whether the rates are simple and understandable can be determined by  
15 inspecting the proposed rate design, which is attached as Exhibit RHG-2.

16 **Q. What is the balancing test set forth by the Kansas Supreme Court for determining**  
17 **whether rates are "just and reasonable?"**

18 **A.** The Supreme Court has stated:

19 The leading cases in this area clearly indicate that the goal should be a rate fixed within  
20 the 'zone of reasonableness' after the application of a balancing test in which the interests  
21 of all concerned parties are considered. In rate-making cases, the parties whose interests

1 must be considered and balanced are these: (1) The utility's investors vs. the ratepayers;  
2 (2) the present ratepayers vs. the future ratepayers; and (3) the public interest.<sup>5</sup>

3 **Q. How does this balancing test fit an institution like Southern Pioneer which behaves**  
4 **like a cooperative?**

5 **A.** The last two tests, (2) the present ratepayers vs. the future ratepayers; and (3) the public  
6 interest, are not seriously affected by Southern Pioneer's behaving like a cooperative.<sup>6</sup>  
7 However, the first balancing test, (1) the utility's investors vs. the ratepayers, becomes  
8 nearly irrelevant in the case of a cooperative. With a cooperative, broadly speaking, the  
9 owners are also the ratepayers. Thus, in a naive sense the balancing automatically takes  
10 place within the organization—the cooperative structure itself internalizes the conflict  
11 between owners and ratepayers. However, if investors are taken to include the financial  
12 institutions that are loaning funds to Southern Pioneer, then the question is more difficult  
13 and irrelevant. In the case of investor owned utilities, this test is usually thought to  
14 concern current and future equity owners, not bond holders and rating agencies. Thus,  
15 this part of the test is irrelevant for Southern Pioneer.

16 **Q. Have you performed the requisite balancing test for the other balancing factors? If**  
17 **so, please explain your analysis for the other two elements.**

18 **A.** Yes. As further explained below, I performed the requisite balancing as it pertains to rate  
19 design.

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<sup>5</sup> Kan. Gas and Electric Co. v. State Corp Comm'n, 239 Kan. 483, 488 (1986).

<sup>6</sup> Southern Pioneer is formally a C-Corporation. But they have agreed to behave as a cooperative except they do have to pay income taxes. For a further discussion of the unusual status of Southern Pioneer, see Laura K. Bowman, Direct Testimony this docket, pp. 4-5.

1           Present Ratepayers vs. Future Ratepayers

2           This balancing factor is commonly referred to as an intergenerational conflict  
3           between ratepayers. If one set of ratepayers is stuck paying for costs that do not  
4           adequately represent the service received by the ratepayers, then an intergenerational  
5           subsidy can occur. A good example of an intergenerational subsidy is the benefits that  
6           the first generation of social security recipients received relative to the payments they  
7           made into the system. In the electric utility industry, an example would be if the costs of  
8           decommissioning Wolf Creek were back-loaded onto future generations.

9           A test year approach to approximate cost data, using depreciation of investment  
10          costs and amortization of costs where the benefits are spread over several years, mirrors  
11          conditions during the period in which rates are to be in effect. Therefore, I am not aware  
12          of any rate design intergenerational issues in the instant docket.

13          The Public Interest

14          First, ratepayers and the public in general have been effectively represented in the  
15          rate case process. Second, it is in the best interest of the public when ratepayers are  
16          protected from unrealistic price increases, undue discrimination, and/or unreliable  
17          service. The public interest is also served when the utility remains a healthy viable  
18          business able to provide reliable service. Specifically, Staff is advocating an increase in  
19          the revenue requirement that will require an increase in utility rates for nearly all  
20          customer classes. This increase in rates might constrain family budgets more in the  
21          future and make businesses in the Southern Pioneer service area less competitive because  
22          of the operating higher costs caused by increased rates. However, the alternative of not

1 increasing rates could potentially be even more detrimental to families and businesses if  
2 the lack of a rate increase makes the utility less viable or its service becomes less reliable.

3 **Q. Are you familiar with requirements for State regulatory authority to comply and**  
4 **obtain assurances in accordance with Section 410 of the American Recovery and**  
5 **Reinvestment Act (ARRA) as it relates to each natural gas and electric utilities?**

6 **A.** Yes. In order for the KCC Energy Office (now Energy Division) to accept ARRA funds  
7 from the DOE, Governor Sebellius provided a signed assurance in April of 2009. That  
8 assurance contained, among other things, language that bears on this proceeding.  
9 Specifically, the State assured, per DE-FOA-0000052 (FOA), issued April 24, 2009, the  
10 following:

11 By signing below, the State governor is providing written notification that they will  
12 comply with and obtain the following assurances in accordance with Section 410 of the  
13 Recovery Act.

14 (1) The applicable State regulatory authority will seek to implement, in  
15 appropriate proceedings for each electric and gas utility, under its rate-  
16 making authority a general policy that ensures that utility financial  
17 incentives are aligned with helping their customers use energy more  
18 efficiently and that provide timely cost recovery and a timely earnings  
19 opportunity for utilities associated with cost-effective measurable and  
20 verifiable efficiency savings, in a way that sustains or enhances utility  
21 customers' incentives to use energy more efficiently.

22 **Q. Please describe how you incorporated ARRA requirements in your proposed rate**  
23 **design of Southern Pioneer's rates.**

24 **A.** In accordance with requirements detailed in the FOA, the Staff COS methodology  
25 allocates operating expenses in a manner that provides a balance between various classes  
26 of customers.

1           Equitable allocation of Company expenses and apportionment of the revenue  
2           increase are based on the concept that each rate class should have its rates based on the  
3           cost to serve the class. This is associated with the principle of cost-causer, cost-payer and  
4           establishes rates that are non-discriminatory. While it is possible to distribute revenues  
5           so that each class ROR is equal to the system ROR, if done too quickly, this scenario may  
6           have severe rate shock implications. Staff's proposed rate design starts with the COS  
7           allocation of Southern Pioneer's revenue requirement based on cost causation to the  
8           different classes. This helps to eliminate potential interclass subsidies. Gradually having  
9           customer rates reflect cost causation reduces rate shock and helps customers manage to  
10          meet the cost of paying for electric service. Proposed customer and demand charges are  
11          reasonable and assist customers in budgeting and managing peak demands on the system.

12           Gradualism to Reduce Potential Rate Shock is a critical element for a sound rate  
13          structure because stable rates make planning easier and provide for less volatility.  
14          Moreover, customer impacts are always an important measure for designing rates.  
15          Therefore, class allocation of the revenue increase and percentage increases in individual  
16          components of the rates, as well as the overall class percentage increase, are considered.  
17          In my rate design, customers with declining block rates in winter will experience  
18          increases in the difference between the first block and the discounted block. This is a  
19          gradual approach to reducing the discount for the space heating sub-classes. Thus, the  
20          customer has a financial incentive to reduce consumption in the winter. Residential and  
21          non-residential customers will be paying an average price for consumption that is fair and  
22          not unduly discriminatory.

1           Energy Efficiency and Energy Conservation is a policy sanctioned by the  
2           Commission. Energy conservation refers to a simple reduction in the use of energy while  
3           energy efficiency occurs when customers make decisions to purchase items that may  
4           decrease energy consumption while maintaining their well-being. Examples of energy  
5           efficiency may include high efficiency appliances, windows, insulation, heating, air  
6           conditioning, light bulbs, etc. However, there may not always be a direct relationship  
7           between energy efficiency and energy conservation if the replacement product expands  
8           the service provided. Rate design may have a direct impact on energy conservation.  
9           Historically, when electric utilities had excess capacity, rates were designed to encourage  
10          consumption through declining block rates and discounts for certain types of services.  
11          Today, the standard is that rates should be designed so that the customer pays the full cost  
12          of electricity that is consumed.

13           In order to continue to encourage customer conservation and energy efficiency,  
14          most of the rate increases were increases in the energy charge rather than for the fixed  
15          charges (the customer charges and the demand charges). For residential customers, about  
16          87.5% of the revenue requirement is expected to be collected with the energy charge.  
17          Although the General Service Small sub-class, the customer charge is increased about  
18          30%, all of the increase in rates is in the energy charge for the remaining two sub-classes  
19          in the General Service Class. For the Industrial Class, the customer charge was not  
20          increased. Instead, the increased revenue from this class comes from increases in the  
21          demand charges and the energy charge—the increase in both charges should further  
22          encourage energy efficiency. For the Municipal Power Service Class, almost 95% of the  
23          increased revenue comes from an increase in the summer and winter energy charges.

1 Even though the Water Pumping Service Class and the Irrigation Service Class both had  
2 significant increases in their customer and demand charges, more than 88% of the  
3 revenue increase is expected to come from the increases in their energy charges.<sup>7</sup>

4 Economic Development is important because businesses provide jobs for  
5 consumers and contribute to the community economy. There are economic arguments  
6 that can be used to justify subsidies to large commercial and industrial users of  
7 electricity. Nonetheless, a lower average price per unit of consumption is not necessarily  
8 an indication of a subsidy since different classes of consumers place different costs on the  
9 electric system. Instead, subsidy refers to whether or not a customer class is paying its  
10 “fair share” based on its CCOS Revenue Requirement Allocation. My proposed rate  
11 design began with Staff’s CCOS Revenue Requirement Allocation. The Staff  
12 adjustments to this allocation were limited in scope to less than a 10% change except in  
13 the cases of the Temporary Service Class which was adjusted upwards by slightly more  
14 than 10% and Small General Service Class. The justification for the significant reduction  
15 in the revenue allocation to the Small General Service Class is economic development.  
16 This was the only case where a significant change in revenue requirement allocation was  
17 made with economic development consideration in mind.

18 As mentioned earlier under the topic of public interest, any rate increase may hurt  
19 an economy. However, the alternative of not increasing rates is to jeopardize the viability  
20 of the electric utility. Balancing these two considerations raises the question whether a  
21 rate increase is worse than a damaged electric utility. A moderate rate increase like  
22 Southern Pioneer is requesting, is probably not worse than a damaged electric utility.

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<sup>7</sup> Since the Temporary Service Class had no rate increase, energy efficiency and conservation were irrelevant.

1           Thus, Staff's proposed rates are conducive to attracting new business or business  
2           expansion and are still favorable to existing customers. Rate design is always an  
3           endeavor to balance the needs of all customers and CCOS studies are a guideline, not a  
4           straightjacket, for achieving that balance.

5   **Q.   Does this complete your testimony?**

6   **A.   Yes.**

Figure 1

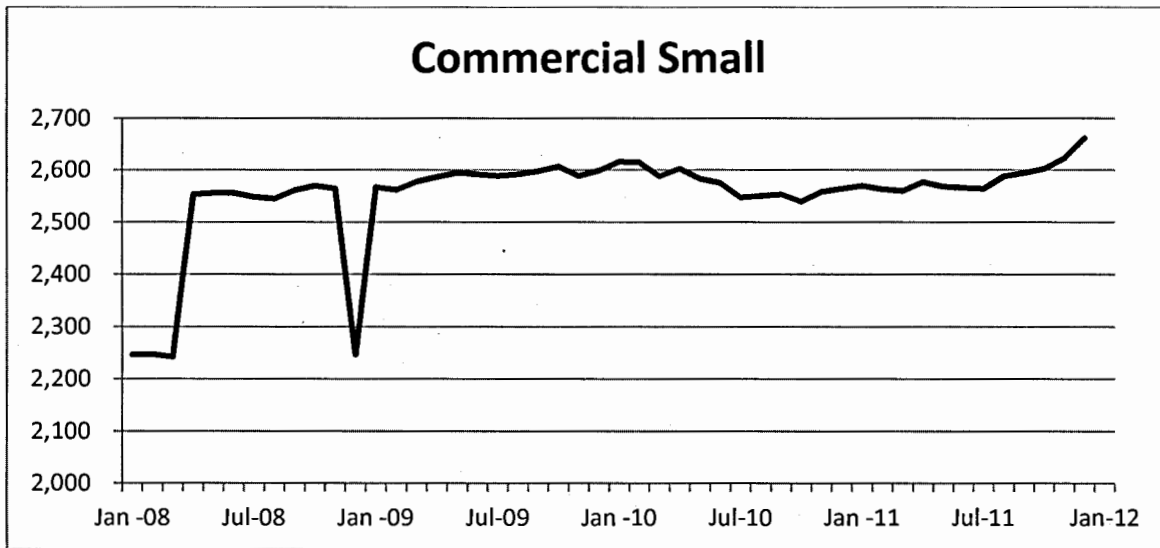


Figure 2

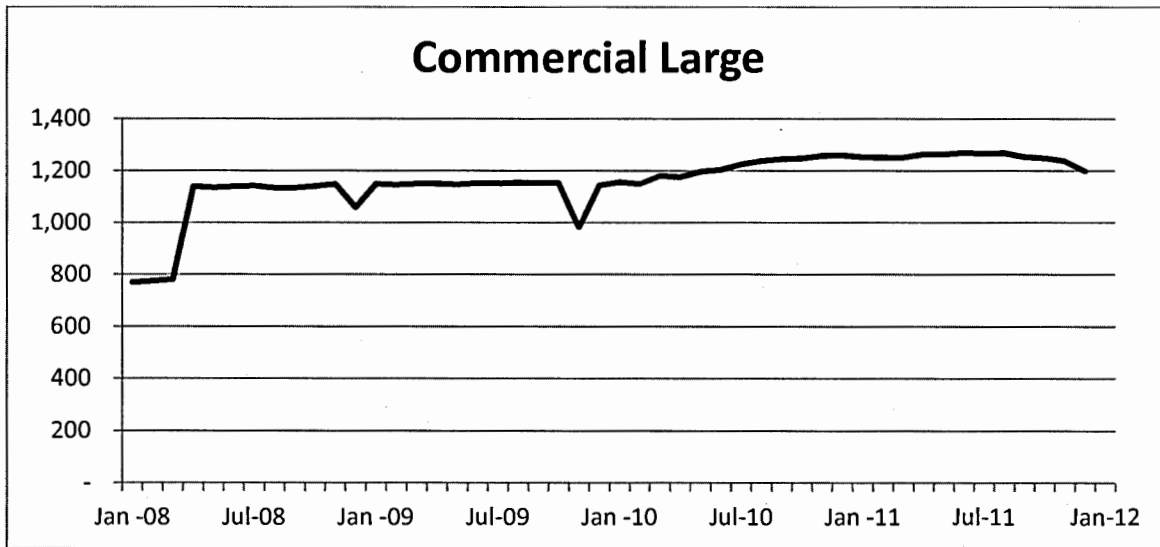


Figure 3

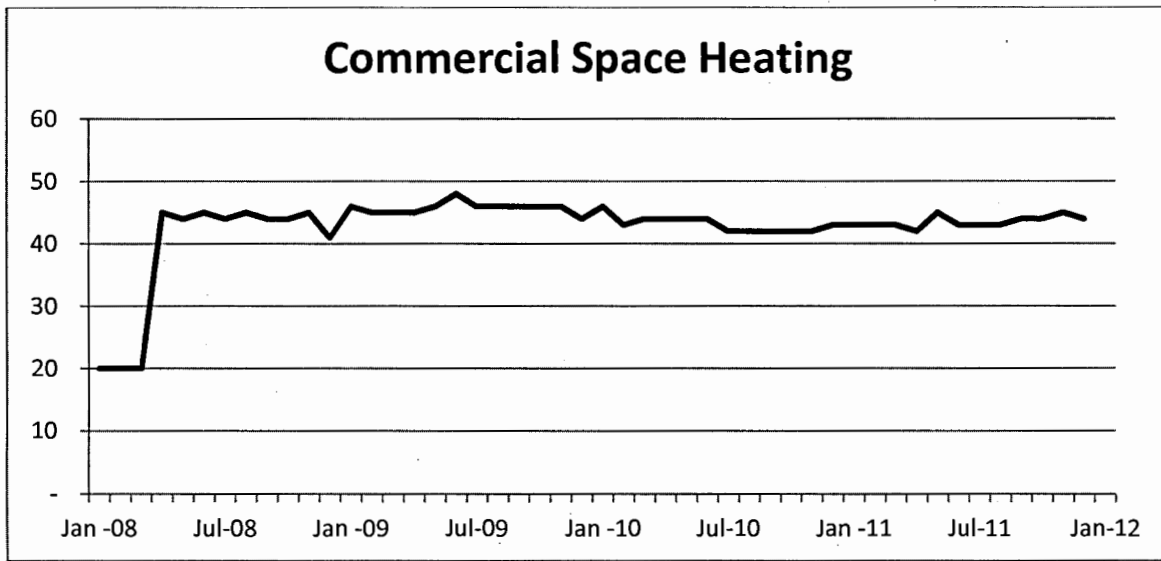


Figure 4

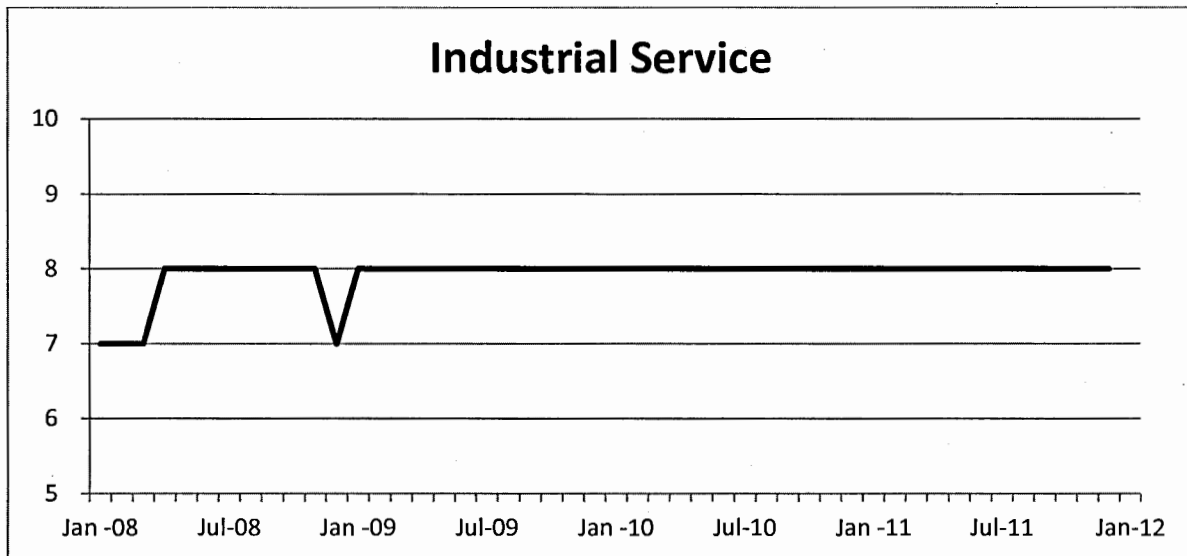


Figure 5

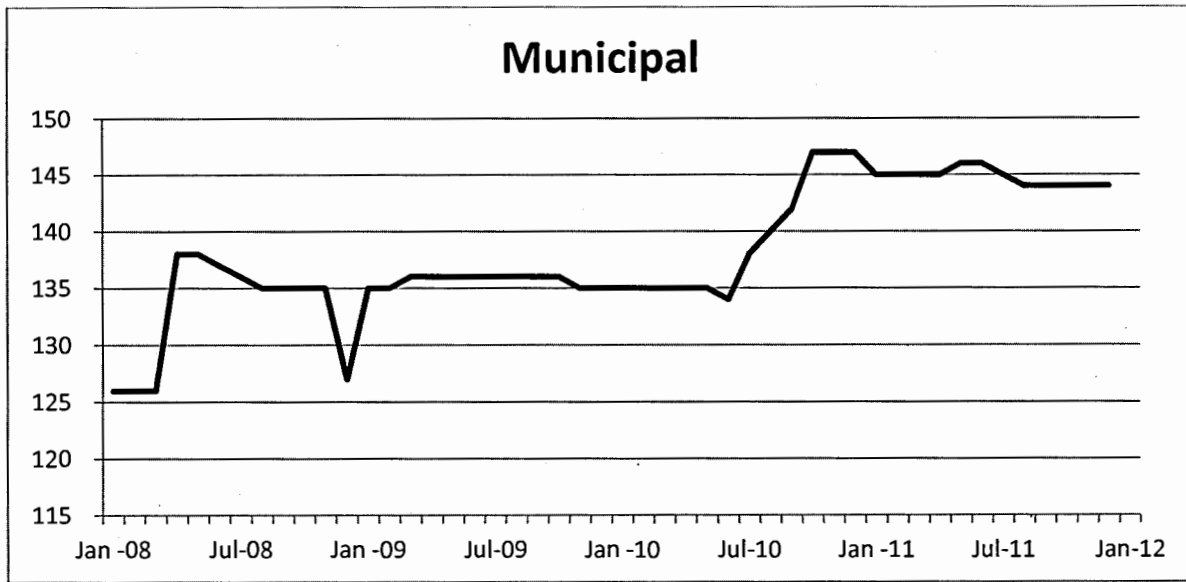


Figure 6

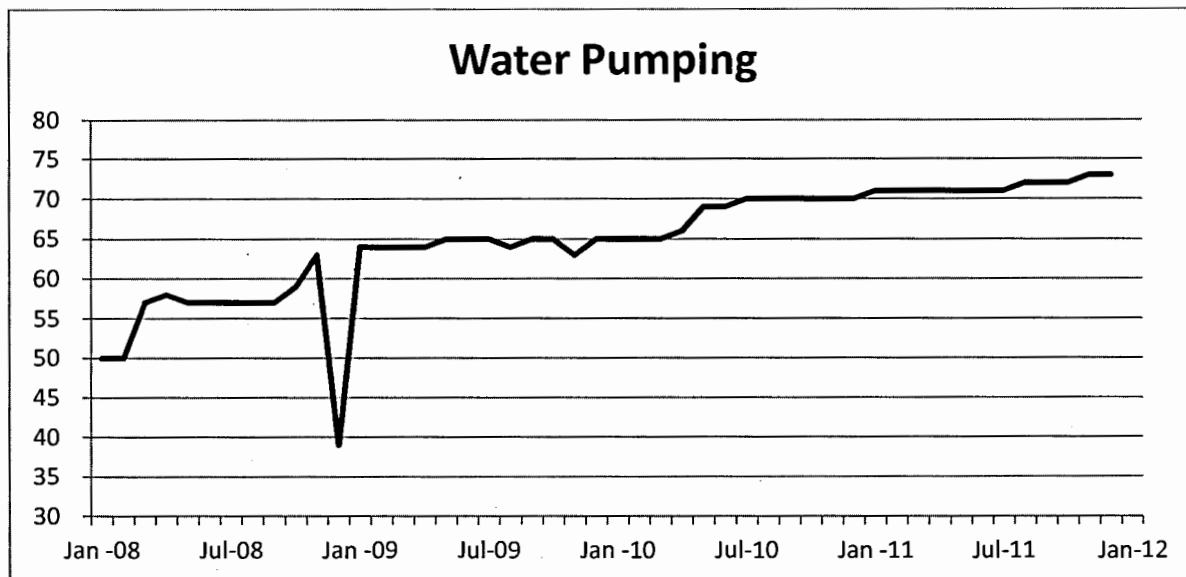
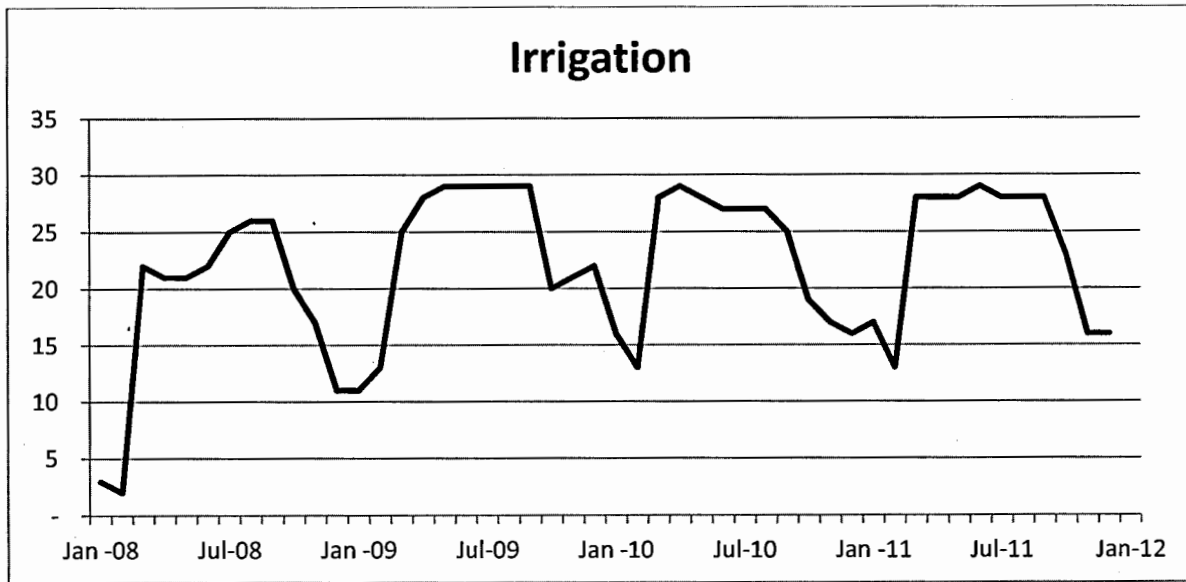


Figure 7



<b>Rate Class</b>	<b>Billing Determinants</b>	<b>Old Rate</b>	<b>Old Revenue</b>	<b>New Rate</b>	<b>New Revenue</b>	<b>% Change</b>
<b><u>Residential Service (11-RS)</u></b>						
<b><u>General Use</u></b>						
Customer Charge	12,240	\$11.50	\$ 1,689,120	\$12.50	\$ 1,836,000	8.7%
Delivery Charge						
Summer - All kWh	54,148,376	\$0.10491	\$ 5,680,706	\$0.11289	\$ 6,112,810	7.6%
Winter (Nov-Jun)	66,653,265	\$0.09410	\$ 6,272,072	\$0.10159	\$ 6,771,305	8.0%
<b>Total</b>	<b>120,801,641</b>		<b>\$ 13,641,898</b>		<b>\$ 14,720,115</b>	<b>7.9%</b>
<b><u>Space Heating</u></b>						
Customer Charge	685	\$11.50	\$ 94,530	\$12.50	\$ 102,750	8.7%
Delivery Charge						
Summer - All kWh	2,292,203	\$0.10491	\$ 240,475	\$0.11289	\$ 258,767	7.6%
Winter (Nov-Jun)						
0-800 kWh	3,323,458	\$0.09410	\$ 312,737	\$0.10159	\$ 337,630	8.0%
801-5800 kWh	2,383,981	\$0.06745	\$ 160,800	\$0.09585	\$ 228,505	42.1%
5801 kWh and above	21,646	\$0.09410	\$ 2,037	\$0.10159	\$ 2,199	8.0%
<b>Total</b>	<b>8,021,288</b>		<b>\$ 810,579</b>		<b>\$ 929,851</b>	<b>14.7%</b>

Rate Class	Billing Determinants	Old Rate	Old Revenue	New Rate	New Revenue	% Change
<b><u>General Service</u></b>						
<b><u>General Service Small (11-GSS)</u></b>						
Customer Charge	2,564	\$15.80	486,134	\$19.00	584,592	20.3%
Delivery Charge						
Summer - (July to Oct.)	5,279,112	\$0.08358	441,228	\$0.09096	480,188	8.8%
Winter (Nov-Jun)	9,719,746	\$0.07358	715,179	\$0.08277	804,503	12.5%
Energy Cost Adjustment		(\$0.00185)	(27,684)			
<b>Total</b>	<b>14,998,858</b>		<b>1,642,541</b>		<b>1,869,283</b>	<b>13.8%</b>
<b><u>General Service Large (11-GSL)</u></b>						
Customer Charge	1,260	\$40.75	616,140	\$40.75	616,140	0.0%
Minimum Charges			483,296		483,296	
Demand Charge per kW>9						
Summer - (July to Oct.)	147,350.3	\$10.00	1,473,503	\$11.00	1,620,853	10.0%
Winter (Nov-Jun)	232,021.8	\$8.00	1,856,175	\$9.00	2,088,197	12.5%
Delivery Charge	128,480,653	\$0.07109	9,133,690	\$0.07641	9,817,207	7.5%
Energy Cost Adjustment		(\$0.00185)	(237,144)			
<b>Total</b>	<b>128,480,653</b>		<b>13,562,804</b>		<b>14,625,693</b>	<b>7.8%</b>
<b><u>General Service Space Heating</u></b>						
Customer Charge	43	\$40.75	21,027	\$40.75	21,027	0.0%
Demand Charge						
Summer - (July to Oct.)	4,836.2	\$10.00	48,362	\$11.00	53,198	10.0%
Winter (Nov-Jun)	5,604.2	\$8.00	44,834	\$9.00	50,438	12.5%
Energy Charge						
GSL	3,943,507	\$0.07109	280,344	\$0.07641	301,323	7.5%
Heating	1,581,115	\$0.06714	106,156	\$0.07275	115,026	8.4%
Energy Cost Adjustment		(\$0.00185)	(10,197)			
<b>Total</b>	<b>5,524,622</b>		<b>500,723</b>		<b>541,012</b>	<b>8.0%</b>
<b><u>Industrial Service (09-IS)</u></b>						
Customer Charge	8	\$ 100.62	\$ 9,660	\$ 100.62	\$ 9,660	0.0%
Demand Charge per kW>10						
Summer - (July to Oct.)	16,830.0	\$ 12.50	\$ 210,375	\$ 13.00	\$ 218,790	4.0%
Winter (Nov-Jun)	40,427.1	\$ 9.50	\$ 384,057	\$ 10.00	\$ 404,271	5.3%
Delivery Charge	19,296,669	\$ 0.06477	\$ 1,249,845	\$ 0.065681	\$ 1,267,425	1.4%
			<b>\$ 1,818,321</b>		<b>\$ 1,900,145</b>	<b>4.5%</b>

Rate Class	Billing Determinants	Old Rate	Old Revenue	New Rate	New Revenue	% Change
<b><u>Municipal Power Service (11-M-I)</u></b>						
Customer Charge	147	\$11.50	\$ 20,286	\$ 12.50	\$ 22,050	8.7%
Delivery Charge						
Summer - (July to Oct.)	742,790	\$0.09603	\$ 71,330	\$ 0.11417	\$ 84,804	18.9%
Winter (Nov-Jun)	<u>1,008,108</u>	<u>\$0.08603</u>	<u>\$ 86,728</u>	<u>\$ 0.10276</u>	<u>\$ 103,593</u>	19.4%
			<u>\$ 178,344</u>		<u>\$ 210,448</u>	18.0%
<b><u>Water Pumping Service (09-WP)</u></b>						
Customer Charge	70	\$16.21	\$ 13,616	\$ 20.00	\$ 16,800	23.4%
Delivery Charge						
Summer - (July to Oct.)	2,519,948	\$0.10672	\$ 268,929	\$ 0.11200	\$ 282,234	4.9%
Winter (Nov-Jun)	<u>3,076,159</u>	<u>\$0.09672</u>	<u>\$ 297,526</u>	<u>\$ 0.10079</u>	<u>\$ 310,046</u>	4.2%
			<u>\$ 580,071</u>		<u>\$ 609,080</u>	5.0%
<b><u>Irrigation Service (11-IP-I)</u></b>						
Demand Charge per horsepower contracted per year	1,754	\$34.00	\$ 59,643	\$ 38.10	\$ 66,835	12.1%
Delivery Charge						
Summer - (July to Oct.)	1,287,982	\$0.08034	\$ 103,477	\$ 0.08127	\$ 104,674	1.2%
Winter (Nov-Jun)	<u>330,624</u>	<u>\$0.07034</u>	<u>\$ 23,256</u>	<u>\$ 0.07314</u>	<u>\$ 24,182</u>	4.0%
			<u>\$ 186,375</u>		<u>\$ 195,691</u>	5.0%
<b><u>Temporary Service (11-CS)</u></b>						
Delivery Charge plus equipment service chg.	40,022	\$0.19030	\$ 7,616	\$ 0.19030	\$ 7,616	0.0%
			<u>\$ 7,616</u>		<u>\$ 7,616</u>	0.0%

Rate Class	Billing Determinants	Old Rate	Old Revenue	New Rate	New Revenue	% Change
<b><u>Private Area / Street Lighting (09-PAL-SL-I)</u></b>						
<b><u>Private Area Light (Coop owned)</u></b>						
On Existing Pole						
100 W P.A.L. Cust 0%	592	\$8.74	\$ 62,089	\$10.07	\$ 71,537	15.2%
100 W P.A.L. Cust 100%	2	\$3.33	\$ 80	\$3.84	\$ 92	15.3%
150 W P.A.L. Cust 0%	28	\$13.89	\$ 4,667	\$16.01	\$ 5,379	15.3%
200 W P.A.L. Cust 0%	14	\$15.63	\$ 2,626	\$18.02	\$ 3,027	15.3%
200 W P.A.L. Cust 50%	1	\$15.63	\$ 188	\$18.02	\$ 216	15.3%
On New Pole (Wood)						
100 W P.A.L. Cust 0%	163	\$14.55	\$ 28,460	\$16.77	\$ 32,802	15.3%
100 W P.A.L. Cust 100%	2	\$3.71	\$ 89	\$4.28	\$ 103	15.4%
150 W P.A.L. Cust 0%	30	\$16.19	\$ 5,828	\$18.66	\$ 6,718	15.3%
200 W P.A.L. Cust 0%	6	\$17.38	\$ 1,251	\$20.03	\$ 1,442	15.2%
<b><u>Flood Lights</u></b>						
On Existing Pole						
150 W Flood Cust 0%	67	\$16.44	\$ 13,218	\$18.95	\$ 15,236	15.3%
400 W Flood Cust 0%	176	\$30.19	\$ 63,761	\$34.80	\$ 73,498	15.3%
400 W Flood Cust 50%	1	\$30.19	\$ 362	\$34.80	\$ 418	15.3%
400 W Flood Cust 100%	1	\$10.96	\$ 132	\$12.63	\$ 152	15.2%
1000 W Flood M.H. Cust 0%	32	\$44.56	\$ 17,111	\$51.36	\$ 19,722	15.3%
On New Pole (Wood)						
150 W P.A.L. Cust 0%	18	\$18.56	\$ 4,009	\$21.39	\$ 4,620	15.2%
400 W P.A.L. Cust 0%	82	\$32.28	\$ 31,764	\$37.20	\$ 36,608	15.3%
1000 W Flood M.H. Cust 0%	8	\$60.49	\$ 5,807	\$69.72	\$ 6,693	15.3%
<b><u>Street Lights</u></b>						
On Existing Pole						
100 W P.A.L. Cust 0%	28	\$9.69	\$ 3,256	\$11.17	\$ 3,752	15.3%
150 W P.A.L. Cust 0%	3	\$11.44	\$ 412	\$13.18	\$ 475	15.3%
200 W P.A.L. Cust 0%	3	\$14.07	\$ 507	\$16.22	\$ 584	15.3%
On New Pole (Wood)						
100 W P.A.L. Cust 0%	5	\$14.55	\$ 873	\$16.77	\$ 1,006	15.3%
200 W P.A.L. Cust 0%	4	\$17.38	\$ 834	\$20.04	\$ 962	15.3%
On Existing Pole						
150 W Cobra Head Cust 0%	1	\$11.44	\$ 137	\$13.19	\$ 158	15.3%
200 W Cobra Head Cust 0%	26	\$14.07	\$ 4,390	\$16.22	\$ 5,061	15.3%
400 W Cobra Head Cust 0%	5	\$18.84	\$ 1,130	\$21.72	\$ 1,303	15.3%
400 W Cobra Head Cust 100%	22	\$10.20	\$ 2,693	\$11.76	\$ 3,105	15.3%
On New Pole (Wood)						
150 W Cobra Head Cust 0%	1	\$18.32	\$ 220	\$21.11	\$ 253	15.2%
200 W Cobra Head Cust 0%	4	\$19.18	\$ 921	\$22.11	\$ 1,061	15.3%
400 W Cobra Head Cust 0%	7	\$24.72	\$ 2,076	\$28.49	\$ 2,393	15.3%
On New Pole (Steel)						
100 W Cobra Head Cust 0%	1	\$26.53	\$ 318	\$30.58	\$ 367	15.3%
150 W Cobra Head Cust 0%	1	\$27.83	\$ 334	\$32.07	\$ 385	15.3%
150 W Cobra Head Cust 100	16	\$5.63	\$ 1,081	\$6.49	\$ 1,246	15.3%
200 W Cobra Head Cust 0%	17	\$29.40	\$ 5,998	\$33.88	\$ 6,912	15.2%
<b><u>Acorn</u></b>						
100 W HPS Cust 50%	3	\$16.75	\$ 603	\$19.30	\$ 695	15.2%

<u>Rate Class</u>	<u>Billing Determinants</u>	<u>Old Rate</u>	<u>Old Revenue</u>	<u>New Rate</u>	<u>New Revenue</u>	<u>% Change</u>
<b><u>Vapor Street Lighting Ornamental Service (09-OSL-V-I)</u></b>						
175 W MV	129	\$10.71	\$ 16,579	\$12.34	\$ 19,102	15.2%
250 W MV	138	\$12.99	\$ 21,511	\$14.97	\$ 24,790	15.2%
400 W MV	119	\$17.22	\$ 24,590	\$19.85	\$ 28,346	15.3%
100 W HPS	439	\$9.69	\$ 51,047	\$11.17	\$ 58,844	15.3%
150 W HPS	121	\$11.44	\$ 16,611	\$13.19	\$ 19,152	15.3%
200 W HPS	155	\$14.07	\$ 26,170	\$16.22	\$ 30,169	15.3%
<b><u>Controlled Private Area Lighting (04-PAL-I) Frozen</u></b>						
175 W MV	553	\$9.76	\$ 64,767	\$11.25	\$ 74,655	15.3%
400 W MV	59	\$18.79	\$ 13,303	\$21.66	\$ 15,335	15.3%
400 W MV (Flood)	81	\$20.49	\$ 19,916	\$23.62	\$ 22,959	15.3%
1000 W MV (Flood)	19	\$38.84	\$ 8,856	\$44.77	\$ 10,208	15.3%
100 W HPS	302	\$8.74	\$ 31,674	\$10.08	\$ 36,530	15.3%
200 W HPS	30	\$15.63	\$ 5,627	\$18.01	\$ 6,484	15.2%
150 W HPS (Flood)	100	\$16.44	\$ 19,728	\$18.95	\$ 22,740	15.3%
400 W HPS (Flood)	92	\$30.19	\$ 33,330	\$34.80	\$ 38,419	15.3%
<b><u>Street Lighting Service Dusk to Dawn (04-SL-I)</u></b>						
MV 7000 lumen lamps	1,386	\$10.26	\$ 170,644	\$11.82	\$ 196,590	15.2%
<b>Total Lighting</b>	<b>5,093</b>		<b>\$ 791,578</b>		<b>\$ 912,304</b>	

**CERTIFICATE OF SERVICE**

12-MKEE-380-RTS

I, the undersigned, hereby certify that a true and correct copy of the above and foregoing Direct Testimony was served vial e-mail this 23rd day of April, 2012, to the following:

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