

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

FILED

AUG 09 2005

PUBLIC SERVICE  
COMMISSION

In the Matter of:

APPLICATION OF BIG SANDY RURAL )  
ELECTRIC COOPERATIVE CORPORATION ) CASE NO. 2005-00125  
FOR AN ADJUSTMENT OF RATES )

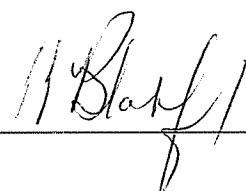
NOTICE OF FILING AND CERTIFICATION OF SERVICE

I hereby give notice that I have filed the original and ten true copies of the Direct Testimony of David H. Brown Kinloch with the Executive Director of the Kentucky Public Service Commission at 211 Sower Boulevard, Frankfort, Kentucky, 40601 this the 9<sup>th</sup> day of August, 2005, and certify that this same day I have served the parties by mailing a true copy, postage prepaid, to the following:

BOBBY D SEXTON  
PRESIDENT/GENERAL MANAGER  
BIG SANDY RECC  
504 11TH STREET  
PAINTSVILLE KY 41240 1422

HONORABLE FRANK F CHUPPE  
WYATT TARRANT AND COMBS LLP  
500 WEST JEFFERSON STREET  
SUITE 2800  
LOUISVILLE KY 40202 2898

GARDNER F GILLESPIE ESQ  
HOGAN AND HARTSON LLP  
555 THIRTEENTH ST NW  
WASHINGTON DC 20004 1109

  
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**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

REGISTERED

AUG 19 2005

PUBLIC SERVICE  
COMMISSION

**CASE NO. 2005-00125**

**ADJUSTMENT OF RATES OF  
BIG SANDY RURAL ELECTRIC COOPERATIVE CORPORATION**

**TESTIMONY OF  
DAVID H. BROWN KINLOCH**

On Behalf of

**THE OFFICE OF THE ATTORNEY GENERAL  
FOR THE COMMONWEALTH OF KENTUCKY**

**AUGUST 2005**

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COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

ADJUSTMENT OF RATES OF	)	
BIG SANDY RURAL ELECTRIC	)	CASE NO. 2005-00125
COOPERATIVE CORPORATION	)	

TESTIMONY OF DAVID H. BROWN KINLOCH

Q1: PLEASE STATE YOUR NAME AND ADDRESS.

A1: My name is David H. Brown Kinloch and my business address is Soft Energy Associates, 414 S. Wenzel Street, Louisville, KY 40204.

Q2: FOR WHOM HAVE YOU PREPARED TESTIMONY?

A2: I have prepared this testimony for the Office of the Attorney General for the Commonwealth of Kentucky.

Q3: PLEASE STATE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A3: I have received two master's degrees from Rensselaer Polytechnic Institute (RPI) in Troy, New York. I also received two undergraduate degrees from the same

1 school. My master's degrees are a Master of Engineering in Mechanical  
2 Engineering and a Master of Science in Science, Technology and Values,  
3 received in 1979 and 1981 respectively. My undergraduate degrees are in  
4 Mechanical Engineering and Philosophy. Much of my master's work included  
5 preparing Electric Generation Planning studies for the Center for Technology  
6 Assessment at Rensselaer. From this work I published two technical papers with  
7 IEEE Power Generation Division, and was a contributing author on two others. I  
8 also did work on New York State's first Energy Masterplan, one of the first  
9 comprehensive long-term planning studies in the nation.

10

11 Q4: HAVE YOU PREVIOUSLY PRESENTED TESTIMONY BEFORE THIS  
12 COMMISSION?

13 A4: Yes, I have testified in numerous cases before this Commission. These cases  
14 include rate cases, Certificate of Convenience and Public Necessity cases,  
15 generation expansion planning cases, and other cases related to regulated utilities.  
16 A list of the cases in which I have presented testimony before this Commission is  
17 contained in Exhibit DHBK-1.

18

19 Q5: WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?

20 A5: The Office of the Attorney General asked me to review the application to adjust  
21 the rates filed by Big Sandy Rural Electric Cooperative Corporation (Big Sandy)  
22 in this case. Specifically, I have reviewed the Cost of Service and Rate Design  
23 portion of the application. In my testimony, I will point out problems with the

1 Big Sandy application in four specific areas: 1) the Cost of Service Study, 2) the  
2 allocation of any rate increase to rate classes, 3) the proposed increase in  
3 reconnection fees, and 4) the Late Payment fee charged by Big Sandy.

4

5

6 **COST OF SERVICE STUDY**

7

8 Q6: IN THIS CASE, BIG SANDY FILED AN UNBUNDLED COST OF SERVICE  
9 STUDY. DO YOU SEE ANY PROBLEMS WITH THIS STUDY?

10 A6: Yes, I found four problems with the Cost of Service Study filed by Big Sandy.

11 First, I have serious concerns about how the Overhead Conductors were  
12 divided into demand and customer components. Big Sandy used a Minimum Size  
13 methodology based on the cost of the 4/0 ACSR conductor. The problem is that  
14 the 4/0 ACSR is the third largest of the 15 conductors in the Big Sandy inventory.  
15 Twelve of the fifteen conductors in the inventory are smaller than the conductor  
16 used as the minimum size. The 4/0 ACSR conductor is far from the minimum  
17 size and is thus a very unusual choice in a Minimum Size methodology.

18 When questioned in a data request as to why a Zero Intercept methodology  
19 (the methodology generally used by the Commission) was not used, Big Sandy  
20 responded that the data was scattered and resulted in low R-squared values. But  
21 the same problems with scattered and inconsistent data are present with the use of  
22 the Minimum Size methodology. Irregular data resulted in Big Sandy selecting

1 one of its largest conductors as its minimum size. Use of one of the largest  
2 conductors to determine the system minimum size is simply not reasonable.

3 Given that irregularities with the data will cause problems no matter which  
4 methodology is used and that the Minimum Size methodology, requires use of  
5 one of the largest conductors as the minimum size to produce reasonable results, it  
6 is much more reasonable to employ the Zero Intercept methodology. On page 1  
7 of Exhibit DHBK-2, I have provided the amperage capacity for each of Big  
8 Sandy's conductors and reorganized the conductors in order of amperage  
9 capacity. On page 2 of Exhibit DHBK-2, I have plotted the conductors based on  
10 amperage capacity and cost per foot. Then, I have had EXCEL automatically add  
11 a linear trend line and associated formula based on these conductor data points.  
12 This formula and graph shows that the Zero Intercept point is \$0.1882 per foot.

13 The next step is to include this Zero Intercept result into the Cost of  
14 Service Study. As a starting point, I used the Cost of Service Study supplied by  
15 Big Sandy in Exhibit R of its Application. By using the Big Sandy study as a  
16 starting point, it provides the Commission an apples-to-apples comparison of  
17 study results. My modified Cost of Service Study is attached to my testimony as  
18 Exhibit DHBK-3. On page 15 of 18 of Exhibit DHBK-3, I have included the  
19 Zero Intercept result in the calculation of the Consumer Related portion of  
20 Conductors. These calculations show that 31.49% of the Conductors are  
21 Consumer related, based on Zero Intercept methodology, while 68.51% are  
22 Demand related.

23

1 Q7: WHAT IS THE SECOND PROBLEM YOU HAVE FOUND IN THE BIG  
2 SANDY COST OF SERVICE STUDY?

3 A7: There was an error in the class non-coincident peak figures used by Big Sandy in  
4 its Cost of Service Study. In some instances the coincident peaks for a given class  
5 in a particular month, were higher than the corresponding non-coincident peaks.  
6 By definition, the class non-coincident peak is greater than or equal to the  
7 corresponding coincident peak for that month. When Big Sandy was questioned  
8 about this problem in the Attorney General's First Data Request, Question 55, Big  
9 Sandy stated that there were errors in the data used in the Cost of Service Study,  
10 and provided the corrected non-coincident peak data. I have replaced the non-  
11 coincident peak data in the Cost of Service Study with the corrected data on page  
12 9 of 18 of Exhibit DHBK-3.

13

14 Q8: WHAT IS THE THIRD PROBLEM YOU FOUND IN BIG SANDY'S COST OF  
15 SERVICE STUDY?

16 A8: There is a problem in how the allocator for Services was developed. Big Sandy  
17 started with the cost of Services for each rate class from the Coop's Continuous  
18 Property Records. These class figures were used to calculate the minimum  
19 service cost based on an estimate of the minimum service length. The allocation  
20 to each class was then made based on the cost of a minimum size Service for each  
21 class.

22 The problem is that the Services allocator being developed will be used to  
23 allocate all of the costs associated with Services, not just a minimum size Service.

1 Thus the complex allocation methodology Big Sandy uses based on minimum  
2 size is unnecessary and inappropriate. The appropriate allocation is to simply  
3 base the allocator on the amount of cost of Services associated with each class. I  
4 have made this simple calculation on page 10 of 18 of Exhibit DHBK-3 where I  
5 have taken the cost of Services for each class, based on the Continuous Property  
6 Records, and divided it by the total cost to determine the percentage allocated to  
7 each class. This method is more accurate than one based on just a minimum size  
8 as it is based on all Services costs and the study is allocating all Service costs.

9

10 Q9: WHAT IS THE FINAL PROBLEM YOU FOUND WITH THE BIG SANDY  
11 COST OF SERVICE STUDY?

12 A9: The final problem I found is associated with the construction of the Customer and  
13 Accounting Services allocator. First, the cost of Meter Reading was allocated to  
14 all 11,626 Residential customers (see Application Exhibit R, page 11 of 25),  
15 despite the fact that Big Sandy's response to the Attorney General's Second Data  
16 Request, Question 19, showed that only 1,356 residential customers had their  
17 meters read by Big Sandy. The remaining 10,335 residential customers read their  
18 own meters. As a result, Big Sandy allocated far too much of meter reading costs  
19 to the Residential class.

20 Second, the weighting system used by Big Sandy included a class  
21 weighting "Factor" of 1 and 2 for Meter Reading, a "Factor" of 1 and 0.25 for  
22 Customer Assistance, but a "Factor" of 3 and 4 for Customer Records (see  
23 Application Exhibit R, page 11 of 25). Because of this mismatch in class



1           “Factor”, Customer Records ended up being weighted far greater than the other  
2           two cost categories. Consequently, while “Customer Records” only make up 67%  
3           of these total costs, Big Sandy calculated 84% of “Combined Relative Weights”  
4           to come from “Customer Records”. This demonstrates that there is an error in the  
5           weighting scheme used by Big Sandy.

6           To correct both of these problems in the development of the Customer and  
7           Accounting Services allocator, instead of combining class weighting factors and  
8           dollar weighting factors, I allocated actual dollars for each of the three cost  
9           categories (Meter Reading, Customer Assistance and Customer Records) directly  
10          to each rate class. The dollars for each class for the three cost categories were  
11          then combined. The combined costs for each class were then divided by total  
12          dollars to produce allocators for the rate classes. This produces an allocator that  
13          is much closer to actual costs than the complex weighting system used by Big  
14          Sandy.

15  
16    Q10:  WHEN THESE FOUR CORRECTIONS ARE MADE TO THE COST OF  
17          SERVICE STUDY, HOW DO YOUR CORRECTED RESULTS COMPARE TO  
18          BIG SANDY’S RESULTS?

19    A10:  The results of the corrected Cost of Service Study are presented on page 2 of 18  
20          of Exhibit DHBK-3. These results can be compared to Big Sandy’s results, which  
21          can be found on page 2 of 25 of Exhibit R of the Coop’s Application. The results  
22          are presented as the TIER generated by each rate class. The results of the two  
23          studies are compared in the table below:

COST OF SERVICE STUDY TIER RESULTS		
CLASS	BIG SANDY	AG (CORRECTED)
RESIDENTIAL	(0.65)	(0.58)
COMMERCIAL	(0.38)	(2.03)
LARGE POWER – LP	6.75	6.48
LARGE POWER – LPR	6.21	8.36
SECURITY LIGHTS	0.47	1.37
TOTAL	0.50	0.50

Two significant changes result from making these corrections to the Cost of Service Study. First, the Security Lights class goes from a class generating a TIER below the overall Coop TIER of 0.50, to a class with a TIER significantly above the overall (TOTAL) TIER. Second, the Commercial class moved from having a slightly negative TIER to having a TIER that is significantly lower than any other class.

#### ALLOCATION OF ANY RATE INCREASE TO RATE CLASSES

Q11: HOW DID BIG SANDY USE THE COST OF SERVICE STUDY TO ALLOCATE THE PROPOSED RATE INCREASE TO THE RATE CLASSES?

A11: Big Sandy allocated the rate increase to the case classes on page 18 of 25 of Exhibit R of the Application. On this page, the Security Lights class was given a

1           10% increase, then the rest of the increase was divided by the other two classes  
2           with below average TIERs, the Residential and Commercial classes, on a basis of  
3           Normalized Revenues.

4  
5   **Q12: DO YOU AGREE WITH THE ALLOCATION METHODOLOGY USED BY**  
6   **BIG SANDY?**

7   **A12: No. While the class rate increase allocation methodology used by Big Sandy may**  
8   **have made sense with the Big Sandy Cost of Service results, it is not appropriate**  
9   **for the corrected study results. First, the corrected results indicate that the**  
10   **Security Light class is producing a TIER significantly above the overall or total**  
11   **TIER. Therefore, this class should be treated like the Large Power classes and**  
12   **should not be assigned any part of the rate increase.**

13           Second, with the Big Sandy allocation, revenues were the basis of dividing  
14   the rate increase between the Residential and Commercial classes. This made  
15   sense with the Big Sandy results, since the TIERs in the study were so close. But  
16   when the Cost of Service Study is corrected, the TIER results of these two classes  
17   are very different and merit a methodology that bring them more into line with  
18   each other.

19  
20   **Q13: HOW DO YOU PROPOSE TO ALLOCATE THE PROPOSED RATE**  
21   **INCREASE BETWEEN RATE CLASSES?**

22   **A13: First, the three classes that have TIERs above the overall TIER should not be**  
23   **allocated any of the increase. The three classes are the two Large Power classes**

1 and the Security Lighting class. This leaves the entire increase to be allocated to  
2 the Residential and Commercial classes. Even after assuming the burden of the  
3 entire increase, these two classes will have TIERS below those of the other classes  
4 and the overall total Coop TIER.

5 The increase should be allocated to these two classes in such a way as to  
6 bring the TIERS for these two classes in line with each other. On page 2 of 18 of  
7 Exhibit DHBK-3, I have allocated the rate increase so as to equalize the TIER  
8 earned by the Residential and Commercial classes. This results in about 80% of  
9 the total increase being allocated to the Residential class and about 20% being  
10 allocated to the Commercial class. The actual class rate allocations based on  
11 these results are done on page 18 of 18 of Exhibit DHBK-3. Though the dollars  
12 allocated on this page are based on the Big Sandy request, I am not endorsing the  
13 size of the overall increase proposed by Big Sandy. I am only using the Big  
14 Sandy overall rate figures to provide a comparison to page 18 of 25 of Exhibit R  
15 in the Coop's application. I recommend that 80% of the increase, whatever that  
16 finally proves to be, be allocated to the Residential class and 20% to the  
17 Commercial class. No increase should be given to the other three classes.

18

19 Q14: HOW DO YOU PROPOSE TO DESIGN THE RATES FOR THE TWO RATE  
20 CLASSES THAT WILL RECEIVE RATE INCREASES?

21 A14: For the Residential class, I concur with Big Sandy's judgment that the entire fee  
22 should be assigned to the energy charge, with the monthly customer charge  
23 remaining unchanged. With respect to the Commercial class, I agree with Big

1 Sandy that an increase in the monthly customer charge to \$15.00 per month is  
2 reasonable and in line with what other utilities are charging. I also agree that the  
3 remainder of the increase for the Commercial class should be assigned to the  
4 energy charge and that the demand charge should be left unchanged. The  
5 assignment guidelines are followed in the calculations in Exhibit DHBK-4, page 1  
6 of 1.

7  
8  
9 **RECONNECTION FEES**

10  
11 Q15: YOU ALSO STATED THAT YOUR TESTIMONY WOULD ADDRESS BIG  
12 SANDY'S PROPOSED INCREASE IN RECONNECTION FEES. WHAT  
13 PROBLEM DO YOU SEE WITH THE RECONNECTION FEES THAT HAVE  
14 BEEN PROPOSED BY BIG SANDY?

15 A15: Big Sandy has four non-recurring charges for very similar services in the  
16 Application's Exhibit 13, page 1 of 6, that are labeled as "Field Collection",  
17 "Connect", "Reconnect" and "Overtime". Each of these services requires a trip to  
18 the customer's premise to perform similar tasks. The difference between these  
19 services in Exhibit 13 is the number of minutes required to perform the task  
20 involved.

21 Basically, the "Reconnect" and "Overtime" are the same service;  
22 reconnection after a disconnect for non-payment. The difference is that an

1           “Overtime” employee must be called-in after hours and must come from their  
2           home, which adds extra time and an overtime wage rate.

3                       What is confusing is why the “Field Collection” and “Connection”  
4           services took 30 minutes, while the “Reconnection” took 45 minutes. In Big  
5           Sandy’s response to the Attorney General’s Initial Data request, Question 42, the  
6           explanation was that the seasonal “Connects” were made at the meter, while the  
7           “Reconnect” after a disconnect for non-payment were made at the pole in order  
8           to prevent tampering. But when asked how many disconnects for non-payment  
9           were made at the meter and how many at the pole, in response to the Attorney  
10          General’s Second Data Request, Question 18, Big Sandy stated that the “majority  
11          of disconnects were made at the meter”. If a majority of these reconnects are at  
12          the meter, then most of the time this service is identical to the “Connect” service,  
13          and should take the same amount of time as the “Field Collection” and “Connect”  
14          services.

15                      Since these three services will take the same amount of time in the  
16          majority of cases, in Exhibit DHBK-4, page 1 of 1, I have reduced the number of  
17          minutes for “Reconnect” by 15 minutes to bring it in line with the “Field  
18          Collection” and “Connect” services. And since the “Overtime” service is the  
19          same as the “Reconnect,” though performed during overtime hours, I have also  
20          reduced this service time by the same 15 minutes. The corrected results show that  
21          a “Reconnect” fee of only \$30.00 is justified, to make it consistent with “Field  
22          Collection” and “Connect” fees, and that a fee of \$45.00 is justified for

1 "Overtime" reconnects. Thus the Commission should limit the "Reconnect" and  
2 "Overtime" reconnect fees to \$30.00 and \$45.00 respectively.

3

4 **LATE PAYMENT FEE**

5

6 Q16: BIG SANDY HAS NOT PROPOSED TO CHANGE ITS CURRENT LATE  
7 PAYMENT FEE OF 10%. WHY DO YOU BELIEVE IT SHOULD BE  
8 EXAMINED IN THIS CASE?

9 A16: While it is correct that Big Sandy has not proposed a change in its Late Payment  
10 fee, I believe the excessive level of this fee deserves examination by the  
11 Commission in this case. Big Sandy requires that payment be made within 15  
12 days of receipt of the bill. If, for example, a member pays their bill a week after  
13 that date, they will be assessed an additional 10%. Paying a 10% fee for being  
14 just one week late is equivalent to paying a 520% annual interest rate.

15 The fee is excessive compared to what most other utilities are charging. In  
16 Exhibit DHBK-5, page 1 of 1, I have listed the late payment fee being charged by  
17 the distribution coops that are part of East Kentucky Power. It should be noted  
18 that a large majority of the other East Kentucky Power coops, 11 of 15, charge  
19 just 5%. Of the four others that still charge a 10% late fee, one of the Coops  
20 mitigates the impact of the high fee with a \$5.00 cap. Big Sandy is in the  
21 minority of those East Kentucky Power distribution coops still using an excessive  
22 10% Late Payment fee.

1           In data requests, Big Sandy was asked to supply its rationale for charging  
2           a 10% Late Payment fee instead of the more customary 5% fee. It could provide  
3           no justification other than that this was the fee that has been charged for many  
4           years. Just because an excessive fee has been charged in the past is not a  
5           sufficient reason to continue to use it in the future. Since Big Sandy can offer no  
6           reason or justification to charge such a high Late Payment fee, it would be  
7           reasonable to bring this fee into line with the late payment fee of the majority of  
8           the East Kentucky Power distribution coops. I recommend that the Commission  
9           lower Big Sandy's Late Payment fee to a more reasonable and more customary  
10          5% level.

11

12    Q17: DOES THIS CONCLUDE YOUR TESTIMONY?

13    A17: Yes it does.



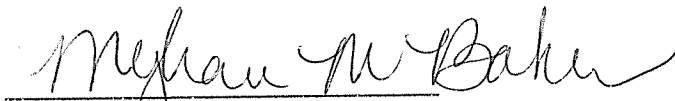
I, David H. Brown Kinloch, certify that the statements contained in the foregoing testimony are true and correct to the best of my knowledge, information, and belief.

Dated this 3rd day of August, 2005.



David H. Brown Kinloch

Affirmed to and subscribed  
before me, this 3rd day  
of August, 2005.



Notary Public

My Commission Expires: May 12<sup>th</sup>, 2009

**Cases in which testimony has been presented by David Brown Kinloch:**

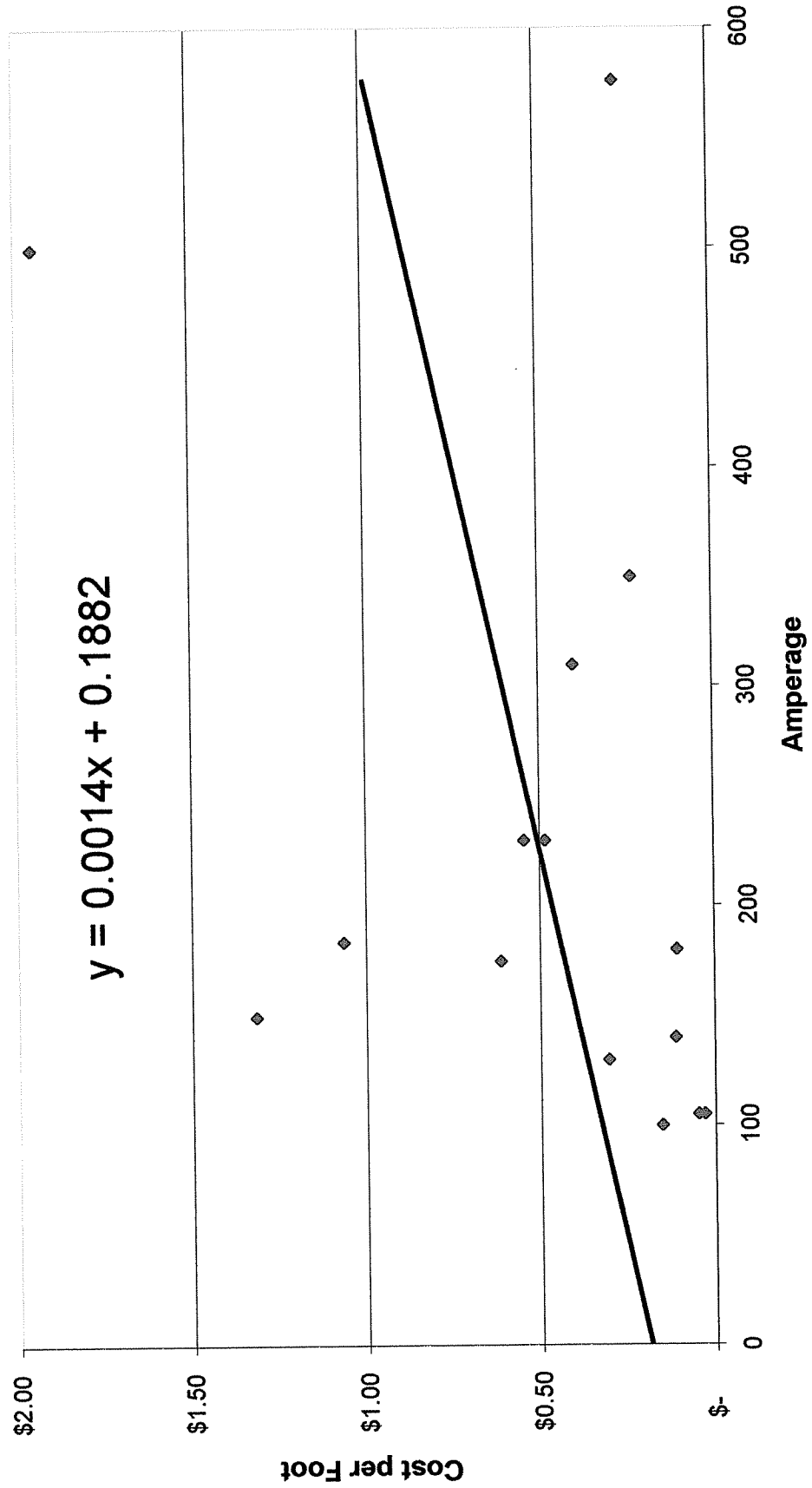
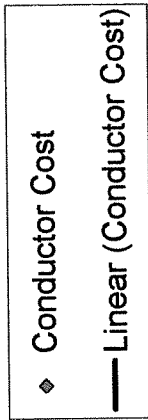
<b>Case No. –</b>	<b>Utility -</b>	<b>Case Type</b>
9242 -	Louisville Gas & Electric Co. -	Trimble County 1 power plant
9613 -	Big Rivers Electric Corp. -	Rate Case
9824 -	Louisville Gas & Electric Co. -	Rate Case
9934 -	Louisville Gas & Electric Co. -	Trimble County 1 power plant
10064 -	Louisville Gas & Electric Co. -	Rate Case
10320 -	Louisville Gas & Electric Co. -	25% Disallowance of Trimble County 1 power plant
90-158 -	Louisville Gas & Electric Co. -	Rate Case
91-066 -	Kentucky Power Co. -	Rate Case
91-115 -	Kentucky Utilities -	Certificate of Convenience and Necessity Case
91-370 -	Union Light Heat and Power Co. -	Rate Case
92-112 -	East Kentucky Power -	Certificate of Convenience and Necessity Case
92-219 -	Clark RECC -	Rate Case
92-346 -	Union Light Heat and Power Co. -	Rate Case
93-113 -	Kentucky Utilities -	Coal Litigation Refund Case
93-150 -	Louisville Gas and Electric Co. -	Demand Side Management Case
93-163 -	Big Rivers -	Sale of Peaking Capacity to Hoosier Energy
93-465 -	Kentucky Utilities -	Environmental Surcharge Case
94-332 -	Louisville Gas and Electric Co. -	Environmental Surcharge Case
94-336 -	East Kentucky Power Cooperative -	Rate Case
94-336 -	Pass-through each of East Kentucky Power's Cooperatives	
95-010 -	Western Kentucky Gas Co. -	Rate Case
96-489 -	Kentucky Power Company -	Environmental Surcharge Case
96-523 -	Kentucky Utilities -	Fuel Adjustment Clause Case
96-524 -	Louisville Gas & Electric Co. -	Fuel Adjustment Clause Case
97-066 -	Delta Natural Gas Co. -	Rate Case
97-204 -	Big Rivers Electric Corp. -	Rate Case
97-209 -	Meade County RECC -	Rate Case
97-219 -	Green River EC -	Rate Case
97-220 -	Henderson Union ECC -	Rate Case
97-224 -	Jackson Purchase ECC -	Rate Case
97-300 -	Louisville Gas and Electric and Kentucky Utilities -	Merger Case
98-321 -	Licking Valley RECC -	Rate Case
2000-056 -	East Kentucky Power -	Certificate of Convenience and Necessity Case
2000-079 -	East Kentucky Power -	Certificate of Convenience and Necessity Case
2000-080 -	Louisville Gas & Electric Co. -	Rate Case
2000-095 -	LG&E Energy and PowerGen -	Merger Case
2000-426 -	Union Light, Heat and Power Co. -	Refund Case

<b>Case No. –</b>	<b>Utility -</b>	<b>Case Type</b>
2001-053	East Kentucky Power	Certificate of Convenience and Necessity Case
2002-029	LG&E and KU	Certificate of Convenience and Necessity Case
2003-00030	East Kentucky Power	Certificate of Convenience and Necessity Case
2003-00052	Union Light, Heat and Power Co.	Generation Acquisition Case
2003-00165	Kenergy Corp.	Rate Case
2003-00433	Louisville Gas & Electric Co.	Rate Case
2003-00434	Kentucky Utilities Co.	Rate Case
2004-00067	Delta Natural Gas Co.	Rate Case
2004-00507	Louisville Gas & Electric and Kentucky Utilities	Trimble County 2 power plant
2005-00042	Union Light, Heat and Power Company	Rate Case

**Account 365 - Overhead Conductor**

Conductor	Investment	Number of Units	Amperage	Unit Cost
8ACWC	158,638	1,042,223	100	\$0.1522
#6 HD copper	473	9,737	105	\$0.0485
#6 Steel	188	6,100	105	\$0.0308
4 ACSR	699,349	2,302,236	130	\$0.3038
6ACWC	305,475	2,732,160	140	\$0.1118
#3/0 Spacer Cable	229	174	150	\$1.3158
2 ACSR	1,737,206	2,827,797	175	\$0.6143
4ACWC	2,975	27,738	180	\$0.1073
#2-3 strand cop	20,762	19,507	184	\$1.0643
250MCM	35,721	73,864	230	\$0.4836
1/0 ACSR	1,329,706	2,441,503	230	\$0.5446
3/0 ACSR	773,037	1,934,046	310	\$0.3997
4/0 ACSR	68,079	294,113	350	\$0.2315
#336.4 ACSR	1,475,467	757,471	500	\$1.9479
#397 ACSR	8,504	31,857	576	\$0.2670

# BIG SANDY CONDUCTOR COST



**Case No. 2005-00125**

**Big Sandy RECC Rate Case**

**OFFICE OF THE ATTORNEY GENERAL**

**UNBUNDLED COST OF SERVICE STUDY**

**Test Year 2004**

**Prepared by: D. Brown Kinloch - August 2005**

Office of the Attorney General

Case No. 2005-00125

Statement of Operations  
Based on Expenses Category for each Rate Class

	Schedule A-1 Residential	Schedule A-2 Com & SmlPow	Schedule LP Large Power	Schedule LPR Large Pow Serv	Schedule YL-1 Security Lights	Total
Revenue	9,992,287	985,438	1,871,729	1,459,978	539,163	14,848,595
Purchased Power Costs	7,287,526	650,248	1,325,806	1,073,821	247,840	10,585,241
O&M	1,824,172	282,033	136,199	70,885	115,781	2,429,070
Admin & General	794,560	117,608	65,216	37,241	72,123	1,086,748
Depreciation & Misc.	738,320	95,897	87,121	55,848	87,943	1,065,129
Interest	422,198	54,837	49,819	31,936	50,289	609,079
Total Costs	11,066,776	1,200,624	1,664,160	1,269,731	573,976	15,775,267
Operating Margin	(1,074,489)	(215,186)	207,569	190,247	(34,813)	(926,672)
Other Income	441,618	57,360	52,110	33,405	52,602	637,095
Net Margins	(632,872)	(157,826)	259,679	223,652	17,789	(289,577)
TIER	(0.58)	(2.03)	6.48	8.36	1.37	0.50
Big Sandy Proposed Rate Increase	707,965	69,819	0	0	53,916	831,701
Proposed Net Margin	75,094	(88,006)	259,679	223,652	71,705	542,124
Big Sandy Proposed TIER	1.19	(0.69)	6.48	8.36	2.50	1.94
AG Proposed Rate Increase	80.5%	19.5%	0.0%	0.0%	0.0%	0
Proposed Net Margin	669,519	162,182	0	0	0	831,701
AG Proposed TIER	36,648	4,356	259,679	223,652	17,789	542,124
	1.09	1.08	6.48	8.36	1.37	1.94

Office of the Attorney General

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Statement of Operations by Functional Classification

	Schedule A-1 Residential	Schedule A-2	Schedule LP	Schedule LPR	Schedule YL-1	Total
Revenue	9,992,287	985,438	1,871,729	1,459,978	539,163	14,848,595
Wholesale Demand Costs						
Generation	1,568,454	168,970	250,373	174,637	22,615	2,185,049
Transmission	705,804	76,036	112,668	78,586	10,177	983,272
Distribution Substation	201,200	21,675	32,118	22,402	2,901	280,296
Total Wholesale Demand	2,475,458	266,681	395,159	275,625	35,694	3,448,617
Wholesale Energy Costs	4,812,069	383,567	930,647	798,196	212,147	7,136,624
Total Wholesale Costs	7,287,526	650,248	1,325,806	1,073,821	247,840	10,585,241
Gross Margin	2,704,761	335,190	545,923	386,157	291,323	4,263,354
Distribution Demand Costs						
Lines	970,869	143,902	225,150	153,527	40,788	1,534,236
Transformers	221,835	32,880	51,445	35,080	9,320	350,560
Total Distribution Demand	1,192,704	176,782	276,595	188,606	50,108	1,884,795
Distribution Consumer						
Lines	861,513	66,007	10,084	994	9,856	948,454
Transformers	41,770	5,641	1,369	1,820	248	50,848
Services	348,471	48,644	4,774	-	39,762	441,652
Meters	341,995	78,685	18,855	1,859	-	441,393
Consumer Services	992,797	174,617	26,677	2,630	46,870	1,243,591
Lighting					179,293	179,293
Total Distribution Consumer	2,586,546	373,594	61,759	7,303	276,028	3,305,231
Total Distribution Costs	3,779,250	550,376	338,355	195,910	326,136	5,190,026
Operating Margin	(1,074,489)	(215,186)	207,569	190,247	(34,813)	(926,672)
Other Revenue	441,618	57,360	52,110	33,405	52,602	637,095
Net Margin	(632,872)	(157,826)	259,679	223,652	17,789	(289,577)



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Unbundled Rate Base

Function	Classification	Schedule A-1 Residential		Schedule A-2 Commercial & Small Power		Schedule LP Large Power Service		Schedule LPR Large Power Rate		Schedule YL-1 Security Lights		Schedule 6 Street Lighting	
		Demand	Consumer	Demand	Consumer	Demand	Consumer	Demand	Consumer	Demand	Consumer	Demand	Consumer
	Total												
Lines	Demand	5,840,132		865,621		1,354,362		923,520		245,355			
	Consumer	5,182,316		397,057		60,660		5,981		59,285			
Transformer	Demand	2,094,212		310,403		485,660		331,165		87,982			
	Consumer	394,329		53,253		12,923		17,183		2,339			
Services	Demand		2,096,183		292,613		28,720				239,182		
	Consumer												
Meters	Demand		838,050		192,815		46,204		4,555				
	Consumer		526,922		92,677		14,159		1,396		24,876		660,029
Consumer Acct & Serv.											1,362,576		
Outdoor Lighting													
Street Lighting													
Total		7,934,344	9,037,801	1,176,023	1,028,415	1,840,022	162,665	1,254,685	29,115	333,337	1,688,259		660,029

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Allocation of Revenue Requirements to Rate Classes

Basis	Total \$\$\$	Schedule A-1 Residential		Schedule A-2 Commercial & Small Power		Schedule LP Large Power Service		Schedule LPR Large Power Rate		Schedule YL-1 Security Lights	
		Demand	Energy	Consumer	Demand	Energy	Consumer	Demand	Energy	Consumer	Demand
1 Purchased Power											
2 Generation Demand	2,185,049	1,568,454	4,812,089	168,870	383,567	250,373	930,647	174,637	788,198	22,615	212,147
3 Generation Energy	7,138,824	705,804	21,875	76,036	112,668	112,668	32,118	76,568	22,402	10,177	2,901
4 Transmission Demand	893,272	201,200		21,875							
5 Substation Demand	280,296										
6	10,585,241	2,475,458	4,812,089	288,681	383,567	395,159	930,647	275,825	788,198	35,694	212,147
7 Total Purchased Power											
8											
9 Lines											
10 Distribution O&M Demand Related	641,422	405,894		60,161		94,128		64,185		17,052	4,120
11 Distribution O&M Consumer Related	398,523	165,639		27,566		38,413		26,163		8,959	1,681
12 Admin & Gen Demand Related	161,815	401,479		11,261		58,917		40,175		10,673	2,579
13 Admin & Gen Consumer Related	401,479	248,192		37,656		17,273		2,639		6,103	1,475
14 Deprec, Taxes & Misc Demand Related	248,192	145,279		225,441		33,691		22,973			
15 Deprec, Taxes & Misc Consumer Related	229,580	141,925		21,533		9,677		1,509			
16 Interest Demand Related				128,815		9,677		1,509			
17 Interest Consumer Related											
18											
19 Total Costs for Lines	2,482,690	970,669		881,513	143,902	66,007	225,150	153,527		994	40,788
20											
21 Margins Demand Related	218,417	138,215		20,466		32,053		21,856		5,907	1,403
22 Margins Consumer Related	135,024			122,647		9,397		1,436			
23											
24 Credits Demand Related	249,140	151,961		22,524		35,241		24,030		6,384	1,543
25 Credits Consumer Related	148,453			134,845		10,331		1,578			
26											
27 Revenue Requirements-Lines	2,447,538	957,123		849,315	141,864	65,073	221,893	151,353		980	40,211
28											
29 Transformers											
30 Distribution O&M Demand Related	30,408	19,241		2,852		4,462		3,042,65		808	21
31 Distribution O&M Consumer Related	4,410	59,366		8,804		13,774		8,393		158	86
32 Admin & Gen Demand Related	13,615	91,102		11,184		1,510		14,406		487	102
33 Admin & Gen Consumer Related	143,966	20,862		17,154		2,317		8,238		746	58
34 Deprec, Taxes & Misc Demand Related	20,862	52,095		7,722		1,325		321		427	
35 Deprec, Taxes & Misc Consumer Related	82,325	11,941		9,609		5,641		1,369		1,820	246
36 Interest Demand Related											
37 Interest Consumer Related											
38											
39 Total Costs for Transformers	401,498	221,635		41,770	32,880	5,641	51,445	35,060		1,820	9,320
40											
41 Margins Demand Related	76,322	49,562		7,346		1,260		7,837		2,082	55
42 Margins Consumer Related	11,361			9,332				306		407	
43											
44 Credits Demand Related	86,112	54,482		8,077		12,637		8,617		2,269	61
45 Credits Consumer Related	12,480			10,261		1,366		336		447	
46											
47 Revenue Requirements-Transform.	392,489	216,906		40,842	32,150	5,516	50,302	34,300		1,760	9,113
48											
49 Services											
50 Distribution O&M Consumer Related	184,643			145,666		20,337		1,866			16,623
51 Admin & Gen Consumer Related	75,350			59,452		8,289		815			6,784
52 Deprec, Taxes & Misc Consumer Related	115,572			91,188		12,729		1,249			10,405
53 Interest Consumer Related	68,088			52,144		7,276		714			5,950
54											
55 Total Costs for Services	441,652			348,471		48,644		4,774			39,762
56											
57 Margins Consumer Related	62,875			49,609		6,925		680			5,661
58											
59 Credits Consumer Related	69,128	0		54,543		7,614		747			6,224
60											
61 Revenue Requirements-Services	435,399			343,557		47,866		4,707			38,189

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Allocation of Revenue Requirements to Rate Classes

Basis	Total \$\$\$	Schedule A-1 Residential		Schedule A-2 Commercial & Small Power		Schedule LP Large Power Service		Schedule LPR Large Power Rate		Schedule YL-1 Security Lights			
		Demand	Energy	Demand	Consumer	Demand	Consumer	Demand	Energy	Demand	Energy	Demand	Energy
1 <b>MARGINS</b>													
2 Distribution O&M Consumer Related	336,757		260,922		60,032		14,385					1,418	
3 Admin & Gen Consumer Related	30,677		23,769		5,469		1,310					129	
4 Deprec. Taxes & Misc Consumer Related	47,053		36,457		8,388		2,010					198	
5 Interest Consumer Related	28,808		20,847		4,786		1,149					113	
6													
7 Total Costs for Services	441,393		341,995		78,685		18,655					1,659	
8													
9 Margins Consumer Related	25,598		19,834		4,563		1,093					108	
10													
11 Credits Consumer Related	28,144		21,809		5,017		1,202					119	
12													
13 Revenue Requirements-Meters	439,848		340,022		78,231		18,746					1,848	
14													
15 Lighting													
16 Outdoor Lighting O&M	47,477											47,477	
17 Street Lighting O&M	-											-	
18 Outdoor Lighting A&G	38,646											38,646	
19 Street Lighting A&G	-											-	
20 Outdoor Lighting Deprec & Misc	59,275											59,275	
21 Street Lighting Deprec & Misc	-											-	
22 Outdoor Lighting Interest	33,895											33,895	
23 Street Lighting Interest	-											-	
24													
25 Total Costs for Lights	179,293												179,293
26													
27 Outdoor Lighting Margins	32,247												32,247
28 Street Lighting Margins	-												-
29													
30 Outdoor Lighting Revenue Credit	35,454												35,454
31 Street Lighting Revenue Credit	-												-
32													
33 Revenue Requirements-Lighting	176,088												176,088
34													
35 Consumer Accts. & Serv													
36 Customer Accounts	691,603		552,128		97,110		14,836					1,463	
37 Customer Service	95,829		76,503		13,456		2,056					203	
38 Admin & General	411,029		328,137		57,714		8,817					889	
39 Depreciation & Misc	28,711		22,921		4,031		616					61	
40 Interest	16,419		13,108		2,305		352					35	
41													
42 Total Costs for Consumer Acctg & Service	1,243,591		992,797		174,617		28,677					2,630	
43													
44 Margins	15,621		12,470		2,183		335					33	
45													
46 Revenue Credits	17,174		13,711		2,411		388					36	
47													
48 Revenue Require. Cons. Act & Serv.	1,242,037		991,557		174,389		28,644					2,627	
49													
50													
51													
52 TOTAL COSTS	15,775,287	3,688,162	4,612,069	443,463	383,567	373,594	671,754	930,647	81,759	484,232	798,186	7,303	85,801
53													212,147
54 TOTAL REVENUE REQUIRE.													278,028
55 MENTS FROM RATES	15,717,637	3,649,489	4,612,069	440,695	383,567	371,173	667,423	930,647	81,377	461,279	798,186	7,235	85,017
56													212,147
57 MARGINS PROVIDED													(69)
58 RATE REVENUE	(67,630)	(18,675)		(2,769)		(2,421)	(4,331)		(383)	(2,959)		(785)	(3,974)

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Exhibit II  
Schedule A-1  
1 of 3

**Demand Related Costs and Energy Related Costs Allocators**

A. Energy Sales	Allocation is proportional on actual sales to end use customers						Total
	Schedule A-1 <u>Residential</u>	Schedule A-2 Commercial & <u>Small Power</u>	Schedule LP Large Power <u>Service</u>	Schedule LPR Large Power <u>Rate</u>	Schedule YL Security Lights		
January	22,665,138	1,299,076	2,901,360	2,807,760	623,998	30,297,332	
February	18,296,603	1,270,640	2,975,256	2,667,320	623,241	25,833,060	
March	15,466,895	1,133,448	2,624,592	2,619,340	626,449	22,470,724	
April	11,229,249	979,059	2,484,923	2,456,800	627,289	17,777,320	
May	11,124,389	1,164,586	2,883,292	2,577,480	626,786	18,376,533	
June	12,136,235	1,181,843	2,747,820	2,220,940	627,886	18,914,724	
July	13,868,159	1,163,083	2,824,540	1,984,800	631,449	20,472,031	
August	12,322,886	1,151,104	2,924,073	2,222,600	633,499	19,254,162	
September	10,438,974	1,093,048	2,775,421	2,165,940	631,684	17,105,067	
October	10,261,701	951,434	2,489,651	2,203,460	638,496	16,544,742	
November	13,712,272	1,159,992	2,965,789	2,328,680	636,906	20,803,639	
December	20,096,887	1,132,345	2,594,205	2,212,020	638,400	26,673,857	
<b>Total</b>	<b>171,619,388</b>	<b>13,679,658</b>	<b>33,190,922</b>	<b>28,467,140</b>	<b>7,566,083</b>	<b>254,523,191</b>	
<b>Percent</b>	<b>67.43%</b>	<b>5.37%</b>	<b>13.04%</b>	<b>11.18%</b>	<b>2.97%</b>	<b>100.00%</b>	

Used to allocate purchased power energy costs to retail rate classes. Wholesale energy costs for rate classes LP1 And LP2 are directly assigned.

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Exhibit II  
Schedule A-1  
2 of 3

**Demand Related Costs and Energy Related Costs Allocators**

<u>Month</u>	<u>Schedule A-1</u>		<u>Schedule A-2</u>		<u>Schedule LP</u>		<u>Schedule LPR</u>		<u>Schedule YL</u>		<u>Total</u>
	<u>Residential</u>	<u>Commercial &amp; Small Power</u>	<u>Large Power Service</u>	<u>Large Power Rate</u>	<u>Large Power</u>	<u>Rate</u>	<u>Security</u>	<u>Lights</u>			
January	56,309	4,006	6,235	5,048	-	-	71,597				
February	45,375	4,427	6,567	3,816	1,585	-	61,770				
March	40,940	3,562	6,655	5,280	-	-	56,437				
April	33,798	3,176	5,257	4,361	1,588	-	48,180				
May	28,598	4,201	5,666	4,394	-	-	42,859				
June	30,231	4,429	5,841	4,657	-	-	45,159				
July	33,197	4,179	5,638	4,330	-	-	47,344				
August	31,182	4,649	6,114	4,321	-	-	46,265				
September	31,155	3,993	4,742	2,277	-	-	42,168				
October	27,227	3,562	5,253	2,090	-	-	38,131				
November	32,714	3,329	6,945	4,483	1,627	-	49,097				
December	54,104	4,410	6,096	4,471	1,614	-	70,695				
<b>Total</b>	<b>444,831</b>	<b>47,922</b>	<b>71,009</b>	<b>49,529</b>	<b>6,414</b>	<b>619,704</b>					
<b>Percent</b>	<b>71.78%</b>	<b>7.73%</b>	<b>11.46%</b>	<b>7.99%</b>	<b>1.04%</b>	<b>100.00%</b>					

Used to allocate wholesale power demand costs to rate classes. Wholesale power demand is billed on basis of CP demand.

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Exhibit II  
Schedule A-1  
3 of 3

Demand Related Costs and Energy Related Costs Allocators

C. Monthly Peak Demands for Each Rate Class	Schedule A-1		Schedule A-2		Schedule LP		Schedule LPR		Schedule YL		Total
	Residential	Commercial & Small Power	Large Power Service	Large Power Rate	Large Power Rate	Security Lights	Rate	Rate	Rate	Rate	
January	56,309	5,203	8,378	5,716	1,584	77,190					
February	45,375	4,608	7,945	5,834	1,585	65,347					
March	40,940	5,074	8,050	6,365	1,584	62,013					
April	33,798	4,604	8,199	5,765	1,588	53,954					
May	29,266	6,026	9,086	5,892	1,601	51,871					
June	33,313	6,048	8,894	5,728	1,595	55,578					
July	33,903	6,597	9,424	5,803	1,598	57,325					
August	34,016	7,041	9,808	5,804	1,600	58,269					
September	33,840	6,274	10,121	5,829	1,603	57,667					
October	27,227	5,665	8,016	5,933	1,613	48,454					
November	34,732	4,846	8,550	6,517	1,627	56,272					
December	54,104	5,724	9,469	7,053	1,614	77,964					
Total	456,823	67,710	105,940	72,239	19,192	721,904					
Percent	63.28%	9.38%	14.68%	10.01%	2.66%	100.00%					

Used to allocate distribution demand related costs to appropriate rate classes

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**Consumer Related Costs Allocators**

**A. Lines (poles and conduit)**

	<u>Number of Consumers</u>	<u>Allocation Percent</u>
Schedule A-1 - Residential	11,626	90.83%
Schedule A-2 - Commercial & Small Power	891	6.96%
Schedule LP - Large Power Service	136	1.06%
Schedule LPR - Large Power Rate	13	0.10%
Schedule YL - Security Lights	133	1.04%
	12,799	100.00%

**B. Transformers**

Rate Class	<u>Number of Consumers</u>	<u>Minimum Transformer Cost</u>	<u>Relative Cost</u>	<u>Weight</u>	<u>Allocation Percent</u>
Schedule A-1 - Residential	11,626	297.31	1.93	22,418.61	82.147%
Schedule A-2 - Commercial & Small Power	891	524.04	3.40	3,027.56	11.094%
Schedule LP - Large Power Service	136	832.42	5.40	734.72	2.692%
Schedule LPR - Large Power Rate	13	11,226.33	72.81	976.91	3.580%
Schedule YL - Security Lights	133	154.18	1.00	133.00	0.487%
	12,799			27,291	100%

**C. Services**

Rate Class	<u>CPR Cost</u>	<u>Allocation Percent</u>
Schedule A-1 - Residential	1,944,748	78.90%
Schedule A-2 - Commercial & Small Power	271,474	11.01%
Schedule LP - Large Power Service	26,645	1.08%
Schedule LPR - Large Power Rate	0	0.00%
Schedule YL - Security Lights	221,903	9.00%
	2,464,770	100%

**D. Meters**

Rate Class	<u># of Consumers</u>	<u>Minimum Meter Cost</u>	<u>Relative Cost</u>	<u>Weight</u>	<u>Allocation Percent</u>
Schedule A-1 - Residential	11,626	51.50	1.00	11,625.92	77.48%
Schedule A-2 - Commercial & Small Power	891	154.65	3.00	2,674.84	17.83%
Schedule LP - Large Power Service	136	242.57	4.71	640.97	4.27%
Schedule LPR - Large Power Rate	13	242.57	4.71	63.19	0.42%
Schedule YL - Security Lights					
				15,004.92	1.00

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E. Consumer & Accounting Services Consumer Related Costs Allocators

Rate Class	Meter Reading	Consumer Records	Customer Assistance	Total Consumer & Accounting Services	Allocation Percent
Schedule A-1 - Residential	56,280	388,684	76,184	521,148	79.83%
Schedule A-2 - Commercial & Small Power	73,940	11,885	5,837	91,661	14.04%
Schedule LP - Large Power Service	11,296	1,816	892	14,003	2.15%
Schedule LPR - Large Power Rate	1,114	179	88	1,381	0.21%
Schedule YL - Security Lights	-	12,412	12,192	24,603	3.77%
<b>TOTAL</b>	<b>142,629</b>	<b>414,976</b>	<b>95,192</b>	<b>652,797</b>	<b>100.00%</b>

Meter Reading \$142,629

	Factor	# of Consumers	Weight	Weight Percent	Class Allocation
Schedule 1 - Resid. Schools & Churches	1.00	1,356	1,356	39.46%	56,280
Schedule 2 - Commercial Rate	2.00	891	1,782	51.84%	73,940
Schedule 3 - General Service (0-49 KVA)	2.00	136	272	7.92%	11,296
Schedule 4 - Large Power Service	2.00	13	27	0.78%	1,114
Schedule 5 - Outdoor & Street Lighting	-	7,442	0	0.00%	0
			<b>3,437</b>	<b>100.00%</b>	<b>142,629</b>

Consumer Records \$476,523

	Factor	# of Consumers	Weight	Weight Percent	Class Allocation
Schedule 1 - Resid. Schools & Churches	3.00	11,626	34,878	81.57%	388,684
Schedule 2 - Commercial Rate	4.00	891	3,563	8.33%	11,885
Schedule 3 - General Service (0-49 KVA)	4.00	136	544	1.27%	1,816
Schedule 4 - Large Power Service	4.00	13	54	0.13%	179
Schedule 5 - Outdoor & Street Lighting	0.50	7,442	3,721	8.70%	12,412
			<b>42,760</b>	<b>100.00%</b>	<b>414,976</b>

Consumer Assistance \$95,192

	Factor	# of Consumers	Weight	Weight Percent	Class Allocation
Schedule 1 - Resid. Schools & Churches	1.00	11,626	11,626	80.03%	76,184
Schedule 2 - Commercial Rate	1.00	891	891	6.13%	5,837
Schedule 3 - General Service (0-49 KVA)	1.00	136	136	0.94%	892
Schedule 4 - Large Power Service	1.00	13	13	0.09%	88
Schedule 5 - Outdoor & Street Lighting	0.25	7,442	1,861	12.81%	12,192
			<b>14,527</b>	<b>100.00%</b>	<b>95,192</b>



Office of the Comptroller General  
Case No. 2005-00125

Exhibit II  
Schedule B  
1 of 2

Functionalization and Classification of Revenue Requirements

Acct No.	Description	Allocation Basis	Actual \$\$\$\$	Adjusted \$\$\$\$	Pro Forma \$\$\$\$	Power Supply			Distribution				Consumer & Accounting Services	Meters Consumer	Outdoor Lighting	
						Generation Demand	Transmission Demand	Substation Demand	Line Transformers Demand	Services Consumer	Line Transformers Consumer	Line Transformers Demand				Lines Demand
585	Purchased Power	OATT	3,448,617	0	3,448,617	2,185,049	983,272	280,296	-	-	-	-	-	-	-	-
	Demand Charges	DA	8,498,839	(1,362,215)	7,136,624	7,136,624	-	-	-	-	-	-	-	-	-	-
	Energy Charges		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>Total Purchased Power</b>		<b>11,947,456</b>	<b>(1,362,215)</b>	<b>10,585,241</b>	<b>2,185,049</b>	<b>983,272</b>	<b>280,296</b>								
580	Operations Supv & Eng	Dist Oper	75,266	520	75,787	-	-	-	13,388	8,276	-	-	3,854	43,951	-	6,318
582	Station Expense	DA/MnSyst	1,836	13	1,848	-	-	-	970	599	-	-	279	-	-	-
583	Overhead Line Exp.	DA/Mn Syst	143,887	994	144,881	-	-	-	76,011	46,989	-	-	21,881	-	-	-
584	Underground Line Exp	DA/MnSyst	-	-	-	-	-	-	-	-	-	-	-	-	-	-
586	Meier Expense	DA	250,982	1,734	252,716	-	-	-	-	-	-	-	-	252,716	-	36,328
587	Consumer Installations	DA	36,078	249	36,328	-	-	-	-	-	-	-	-	-	-	4,831
588	Misc. Distribution Exp	Dist Oper	57,559	398	57,956	-	-	-	10,238	6,329	-	-	2,947	33,610	-	-
589	Rents		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>Total Operations</b>		<b>565,608</b>	<b>3,908</b>	<b>569,516</b>				<b>100,606</b>	<b>62,194</b>			<b>28,961</b>	<b>330,277</b>		<b>47,477</b>
590	Maint Supv & Eng	Dist Maint.	69,230	90	69,320	-	-	-	34,987	21,617	1,966	285	10,066	419	-	-
592	Maint of Station Equip	DA/Mn Syst	4,682	6	4,688	-	-	-	2,459	1,520	-	-	708	-	-	-
593	Maint. Overhead Lines	DA/Mn Syst	900,584	1,166	901,750	-	-	-	473,097	292,465	-	-	136,188	-	-	-
594	Maint of Underground Lines	DA/Mn Syst	-	-	-	-	-	-	-	-	-	-	-	-	-	-
595	Maint Line Transformers	DA	30,576	40	30,615	-	-	-	-	-	26,737	3,878	-	-	-	-
596	Maint of St Lg & Signal Sys	DA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
597	Maintenance of Meters	DA	5,691	7	5,698	-	-	-	30,292	18,726	1,703	247	8,720	5,688	-	-
598	Maint Misc Distrib Plant	Dist Maint.	59,974	78	60,052	-	-	-	-	-	-	-	-	363	-	-
	<b>Total Distribut Maintenance</b>		<b>1,070,737</b>	<b>1,386</b>	<b>1,072,123</b>				<b>540,816</b>	<b>334,329</b>	<b>30,406</b>	<b>4,410</b>	<b>155,682</b>	<b>6,480</b>		
901	Supervision	DA	-	0	-	-	-	-	-	-	-	-	-	-	-	-
902	Meter Reading Expense	DA	142,512	117	142,629	-	-	-	-	-	-	-	-	-	-	-
903	Cons Rec'd & Collections	DA	476,523	391	476,914	-	-	-	-	-	-	-	-	-	142,629	-
904	Uncollectible Accounts	DA	72,000	59	72,059	-	-	-	-	-	-	-	-	-	476,914	-
	<b>Total Customer Accounts</b>		<b>691,036</b>	<b>567</b>	<b>691,603</b>										<b>691,603</b>	
907-910	Customer Sales & Intro	DA	94,880	312	95,192	-	-	-	-	-	-	-	-	-	95,192	-
911	Supervision	DA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
912	Demonstration & Selling	DA	638	-	638	-	-	-	-	-	-	-	-	-	638	-
913	Advertising	DA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>Total Customer Service</b>		<b>95,517</b>	<b>312</b>	<b>95,829</b>										<b>95,829</b>	
	<b>Total of Above</b>		<b>14,370,353</b>	<b>(1,356,042)</b>	<b>13,014,311</b>	<b>2,185,049</b>	<b>983,272</b>	<b>280,296</b>	<b>641,422</b>	<b>396,523</b>	<b>30,406</b>	<b>4,410</b>	<b>184,643</b>	<b>336,757</b>	<b>787,432</b>	<b>47,477</b>
920	Administrative Salaries		582,723	(41,486)	541,237	-	-	-	-	-	-	-	-	-	-	-
921	Office Supplies		118,160	(8,412)	109,748	-	-	-	-	-	-	-	-	-	-	-
923	Outside Services		51,171	(3,643)	47,528	-	-	-	-	-	-	-	-	-	-	-
924	Property Ins		-	-	-	-	-	-	-	-	-	-	-	-	-	-
925	Injuries & Damages		28,695	(2,043)	26,653	-	-	-	-	-	-	-	-	-	-	-

SCHEDULE G  
1 of 8

Office of the Attorney General  
Case No. 2005-00125

Exhibit II  
Schedule B  
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Functionalization and Classification of Revenue Requirements

Acct	Description	Allocation Basis	Actual \$\$\$	Adjusted \$\$\$	Pro Forma \$\$\$	Power Supply			Distribution			Consumer Services					
						Generation Demand	Transmission Demand	Substation Demand	Lines Demand	Customer Demand	Line Transformers Demand	Services Consumer	Meters Consumer	Consumer & Accounting Services	SCHEDULE Lighting		
926	Employ Pensions & Benef		5,498	(391)	5,106												
928	Regulatory Exp		5,966	(426)	5,541												
929	Duplicate Charges		(841)	60	(781)												
930	Misc General Exp		270,781	(19,278)	251,503												
931	Rents		13,673	(973)	12,699												
935	Misc. General Plant		94,222	(6,708)	87,514												
	<b>Total Admin &amp; General</b>	Dist Plant	1,170,048	(83,300)	1,086,748				261,755	161,815	93,862	13,615	75,350	30,677	411,029	38,646	
403	Deprec. Distribution Plant	Net Plant	983,988	27261	1,011,249				381,170	235,637	136,684	19,826	109,725	44,673	27,258	56,276	
403	Deprec. General Plant	Net Plant	53,880		53,880				20,309	12,555	7,283	1,056	5,846	2,380	1,452	2,998	
	<b>Total Depreciation</b>		1,037,868	27,261	1,065,129				401,479	248,192	143,966	20,882	115,572	47,053	28,711	59,275	
408.5	PSC Assessment	Rate Base															
426	Miscell. Income Deductions	Rate Base	5,355.5	(5,356)													
	<b>Total Miscellaneous</b>		5,356	(5,356)													
427.1	Interest - RUS Constic	Rate Base	96,004	9,303	105,307				39,693	24,538	14,234	2,065	11,426	4,652	2,839	5,660	
427.2	Interest - Other LTD	Rate Base	333,086	32,275	365,361				137,715	85,135	49,383	7,163	39,643	16,140	9,849	20,332	
427.3	Interest - FFB Notes	Rate Base	99,186	9,611	108,796				41,009	25,351	14,705	2,133	11,805	4,806	2,933	6,055	
	<b>Total Interest on LTD</b>		528,275	51,189	579,464				218,417	135,024	78,322	11,361	62,875	25,598	15,621	32,247	
431	Other Interest Expense	Rate Base	29,615		29,615				11,163	6,901	4,003	581	3,213	1,308	798	1,648	
431.1	Other Interest - STL	Rate Base															
	<b>Total Short Term Interest</b>		29,615		29,615				11,163	6,901	4,003	581	3,213	1,308	798	1,648	
	<b>Total Costs</b>		17,141,515	(1,366,248)	15,775,267				1,534,236	948,454	350,560	50,848	441,652	441,993	1,243,691	179,293	
	<b>Margin Requirements</b>		528,275	51,189	579,464				218,417	135,024	78,322	11,361	62,875	25,598	15,621	32,247	
	<b>Total Revenue Requirements</b>		17,669,790	(1,315,059)	16,354,731				1,752,653	1,083,478	428,882	62,209	504,526	466,992	1,259,211	211,540	
	<b>Leas: Misc Income</b>																
450	CATV & Non-Recurring Chrgs	Rate Base	278,718	25,908	25,908				9,765	6,037	3,502	508	2,811	1,145	698	1,442	
451	Forfeited Discounts	Rate Base	103,023		103,023				105,057	64,946	37,872	5,464	30,242	12,313	7,513	15,511	
454	Rent from Electric Prop.	Rate Base	89,415		89,415				38,832	24,006	13,925	2,020	11,178	4,551	2,777	5,733	
456.1	Other Electric Property	Rate Base	55		55				33,703	20,835	12,086	1,753	9,702	3,950	2,410	4,976	
	<b>Total Misc Income</b>		471,211	25,908	497,119				187,379	115,836	67,192	9,746	53,940	21,961	13,401	27,665	
419	Less: Other Income	Rate Base	100,134		100,134				37,743	23,333	13,634	1,963	10,865	4,423	2,689	5,572	
421	Gain on Disposition	Rate Base	(6,347)		(6,347)				(2,392)	(1,479)	(858)	(124)	(689)	(280)	(171)	(963)	
424	Other Capital Credits	Rate Base	46,189		46,189				17,410	10,763	6,243	906	5,012	2,040	1,245	2,570	
	<b>Total Other Income</b>		139,976		139,976				52,761	32,617	18,920	2,744	15,188	6,184	3,773	7,790	
	<b>Revenue Requirements from Rates</b>		17,068,603	(1,340,967)	15,717,637				1,512,513	935,025	342,770	49,718	435,399	438,848	1,242,037	176,086	

Office of the Attorney General

Exhibit II  
Schedule B-1  
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Case No. 2005-00125

Determination of Certain Plant Investments as Demand Related or Consumer Related

Account 364 - Poles

Pole	Size	Investment	Number of Units	Unit Cost	Predicted Value
25.00	25.00	1,571,983	8,644.00	181.86	159.11
30.00	30.00	621,281	3,047.00	203.90	216.38
35.00	35.00	1,335,868	5,649.00	236.48	273.66
40.00	40.00	1,854,163	5,414.00	342.48	330.93
45.00	45.00	1,231,400	3,065.00	401.76	388.21
50.00	50.00	462,532	1,009.00	458.41	445.48
55.00	55.00	218,789	445.00	491.66	502.76
<b>Subtotal</b>		<b>7,296,016</b>	<b>27,273.00</b>		
Cross arms		562,786			
Anchors & Guys		1,909,098			
Other		67,767			
<b>Total Investment</b>		<b>9,835,667</b>	<b>27,273.00</b>		
X Variable - (Size)			11.46		
Zero Intercept			(127.27)		
R Square			0.97		

Minimum Intercept 25 ft pole	Use Predicted Value	159.11
Number of poles		27,273.00
Consumer Related Investment		4,339,376.89
Total Investment		9,835,667.00
<b>Percent Customer Related</b>		<b>44.12%</b>
<b>Percent Demand Related</b>		<b>55.88%</b>

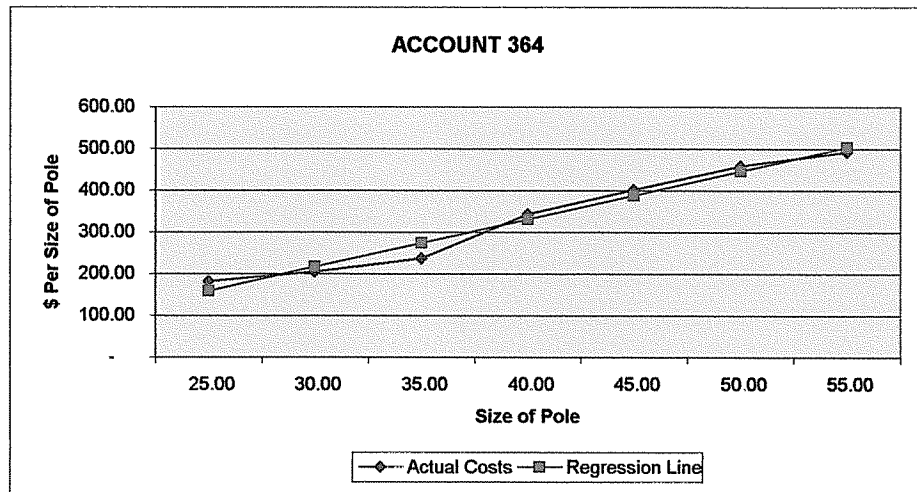
SUMMARY OUTPUT

*Regression Statistics*

Multiple R	0.985813
R Square	0.971827
Adjusted R Sc	0.966192
Standard Error	23.07737
Observations	7

*Coefficients*

Intercept	-127.2669
X Variable 1	11.45503



Office of the Attorney General

Exhibit II  
Schedule B-1  
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Case No. 2005-00125

Determination of Certain Plant Investments as Demand Related or Consumer Related

Account 365 - Overhead Conductor

Conductor	Investment	Number of Units	Unit Cost
4ACWC	2,975	27,738	\$ 0.1073
6ACWC	305,475	2,732,160	\$ 0.1118
8ACWC	158,638	1,042,223	\$ 0.1522
1/0 ACSR	1,329,706	2,441,503	\$ 0.5446
3/0 ACSR	773,037	1,934,046	\$ 0.3997
4/0 ACSR	68,079	294,113	\$ 0.2315
2 ACSR	1,737,206	2,827,797	\$ 0.6143
4 ACSR	699,349	2,302,236	\$ 0.3038
#336.4 ACSR	1,475,467	757,471	\$ 1.9479
#2-3 strand c	20,762	19,507	\$ 1.0643
#6 HD coppe	473	9,737	\$ 0.0485
#6 Steel	188	6,100	\$ 0.0308
#3/0 Spacer (	229	174	\$ 1.3158
250MCM	35,721	73,864	\$ 0.4836
#397 ACSR	8,504	31,857	\$ 0.2670
<b>SUBTOTAL</b>	<b>6,615,807</b>	<b>14,500,526</b>	
Arrestors	167,110		
Sect Bare & Inst COS	10,899		
OCRs	207,338		
Cutouts	253,079		
Insulator String	866,126		
Grounds	546,277		
<b>TOTAL</b>	<b>8,666,635</b>		

Zero Intercept Conductor	\$0.1882	per foot
Total Amount of Conductor in Feet	14,500,526	
	\$\$\$	
<b>Zero Intercept Investment -Consumer Related</b>	<b>2,728,998.99</b>	<b>31.49%</b>
<b>Demand Related</b>	<b>5,937,636</b>	<b>68.51%</b>
<b>Investment in Conduit</b>	<b>8,666,635.33</b>	<b>100.00%</b>

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Breakdown of Lines into Demand Related and Consumer Related Components

Conductor	Total Investment	Percent Consumer	Amount Consumer	Percent Demand	Amount Demand
Conductor	8,666,635	31.49%	2,728,998.99	68.51%	5,937,636
Poles	9,835,667	44.12%	4,339,376.89	55.88%	5,496,290
	<b>18,502,302</b>		<b>7,068,375.89</b>		<b>11,433,926</b>
<b>Percent</b>			<b>38.20%</b>		<b>61.80%</b>

Office of the Attorney General

Exhibit II  
Schedule B-1  
3 of 3

Case No. 2005-00125

Determination of Certain Plant Investments as Demand Related or Consumer Related

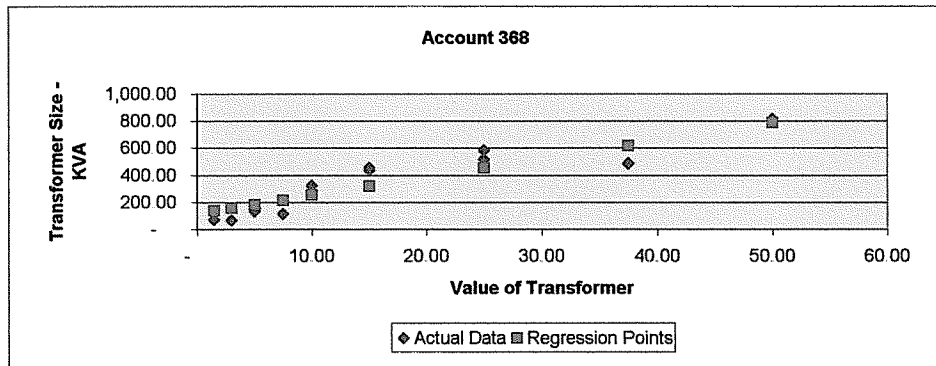
Account 368-Transformers

Pole	Size	Investment	Number of Units	Unit Cost	Predicted Value
1.5KVA CSP	1.50	9,490	132.00	71.89	135.07
3.5KVA CSP	3.00	12,470	185.00	67.41	155.20
5KVA CSP	5.00	46,993	359.00	130.90	182.05
7.5KVA CSP	7.50	910	8.00	113.75	215.60
10KVA CSP	10.00	916,459	3,238.00	283.03	249.15
15KVA CSP	15.00	1,179,543	2,587.00	455.95	316.26
25KVA CSP	25.00	990,472	1,694.00	584.69	450.47
37.5KVA CSP	37.50	5,336	11.00	485.09	618.24
<b>Subtotal</b>		<b>3,161,673</b>	<b>8,214.00</b>		
5 KVA	5.00	25,439	165.00	154.18	182.05
10 KVA	10.00	43,640	136.00	320.88	249.15
15 KVA	15.00	67,438	154.00	437.91	316.26
25 KVA	25.00	95,991	186.00	516.08	450.47
37.5 KVA	37.50	55,153	113.00	488.08	618.24
50 KVA	50.00	406,386	499.00	814.40	786.01
75KVA		47,659	46.00	1,036.07	
100KVA		75,781	57.00	1,329.49	
167 KVA		125,248	65.00	1,926.89	
225 KVA		3,572	1.00	3,572.00	
225, 300, & 333 KVA		66,906	23.00	2,908.96	
500 KVA		73,270	17.00	4,310.00	
833 - 1500 KVA		57,095	3.00	19,031.67	
Voltage Regulators		22,761			
Capacitors		26,266			
All Other Equipment		437,100	117.00		
<b>Total Investment</b>		<b>4,791,378</b>	<b>9,679.00</b>		
x Coefficient		13.4214			
Zero Intercept		114.9407			
R Square		0.8121			

Number of Transformers	9,679.00
Zero Intercept	114.94
Consumer Related Investment	1,112,510.96
Demand Related Investment	8,782,412.00
<b>Percentage of Investment Consumer Related</b>	<b>12.67%</b>
<b>Percentage of Investment Demand Related</b>	<b>87.33%</b>

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.901173
R Square	0.812112
Adjusted R Sc	0.796455
Standard Error	101.5985
Observations	14
Coefficients	
Intercept	114.9407
X Variable 1	13.42136





Office of the Attorney General

Exhibit III

Case No. 2005-00125

Allocation of Increase in Revenue Requirements

A. Determination of Increase Amount for Specified Rate Classes

Revenue Requirements		<u>Schedule A-1</u>	<u>Schedule A-2</u>	<u>Schedule YL-1</u>
Normalized Revenue		\$ 9,992,287	\$ 985,438	\$ 539,163
Increase Amount	\$ 831,701			
Increase Schedule YL-1 by 0%				\$0.00
Increase Amount for Schedules A-1 & A-2	\$ 831,701			
Increase Amounts for Schedules A-1 & A-2		\$ 669,519	\$ 162,182	
Revenue Requirements		\$ 10,661,806	\$ 1,147,620	\$ 539,163

B. Rate Design - Schedules A-1 & A-2

	<u>Schedule A-1</u>	<u>Schedule A-2</u>	<u>Schedule YL-1</u>
New Customer Charge		15.00	
Billing Units		10,689	
Customer Charge Revenue	976,577	160,335	
Plus Demand Charge Revenue		237,236	
Revenue Required - Energy Rate	9,685,229	750,049	
Energy KWh	171,619,388	13,679,658	
Proposed Energy Rate	0.05643	0.05483	

C. Rate Design for Schedule YL-1

	Rates	
	<u>Current</u>	<u>Proposed</u>
175 Watt Lamp	\$ 5.66	\$ 5.66
400 Watt	\$ 7.85	\$ 7.85
500 Watt	\$ 8.86	\$ 8.86
1500 Watt	\$ 18.70	\$ 18.70

Meter Reading, Collection, Disconnect-Reconnect charge:

	<u>Meter Reading</u>	<u>Meter Tests</u>	<u>Field Collection</u>	<u>Connect</u>	<u>Reconnect</u>	<u>Overtime</u>
Number of minutes	<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>	<u>75</u>
Serviceman:						
Regular time	12.26	12.26	12.26	12.26	12.26	30.64
Over time						
Direct wage per hr.	1.60	1.60	1.60	1.60	1.60	
Other cost based on labor	2.77	2.77	2.77	2.77	2.77	2.77
Other direct cost per hr	4.52	4.52	4.52	4.52	4.52	
Mileage 10 mi	3.65	3.65	3.65	3.65	3.65	
Mileage 20 mi						7.30
Office clerical:						
Hours @ 1/4						
Direct wage per hr.	4.25	4.25	4.25	4.25	4.25	4.25
Other cost based on labor	0.56	0.56	0.56	0.56	0.56	0.56
Other direct cost per hr	0.96	0.96	0.96	0.96	0.96	0.96
Other direct cost per hr	2.26	2.26	2.26	2.26	2.26	2.26
Total	<u>32.83</u>	<u>32.83</u>	<u>32.83</u>	<u>32.83</u>	<u>32.83</u>	<u>48.74</u>
Proposed charge	<u>30.00</u>	<u>30.00</u>	<u>30.00</u>	<u>30.00</u>	<u>30.00</u>	<u>45.00</u>

	<u>Number</u>	<u>Charges Existing</u>	<u>Proposed</u>	<u>Revenue Existing</u>	<u>Proposed</u>	<u>Change</u>
Return check	632	15.00	20.00	9,480	12,640	3,160
Meter reading	868	25.00	30.00	21,700	26,040	4,340
Meter tests	3	15.00	30.00	45	90	45
Field collection	2,075	25.00	30.00	51,875	62,250	10,375
Connect	640	25.00	30.00	16,000	19,200	3,200
Reconnect	30	37.50	30.00	1,125	900	(225)
Overtime	14	47.50	45.00	665	630	(35)
Total				<u>100,890</u>	<u>121,750</u>	<u>20,860</u>

Proposed increase 20,860



## Late Payment Charges of East Kentucky Power's Cooperatives

<b>Big Sandy RECC</b>	<b>10 %</b>
Blue Grass Energy CC	5 %
Clark Energy Coop	5 %
Cumberland Valley Electric	5 %
Farmers RECC	10 % - Maximum of \$5.00
Fleming-Mason Energy	5 %
Grayson RECC	10 %
Inter-County Energy	10 %
Jackson Energy CC	5 %
Licking Valley RECC	5 %
Nolin RECC	5 %
Owen Electric Coop	5 %
Salt River Electric CC	5 %
Shelby Energy Coop	10 %
South Kentucky RECC	5 %
Taylor County RECC	5 %