

*Lane Kollen*

COMMONWEALTH OF KENTUCKY  
BEFORE THE  
PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of:

The Application of  
Big Rivers Electric Corporation,  
Louisville Gas and Electric Company,  
Western Kentucky Energy Corp.,  
Western Kentucky Leasing Corp., and  
LG&E Station Two, Inc.  
for Approval of Wholesale Rate Adjustment  
for Big Rivers Electric Corporation and for  
Approval of Transaction

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Case No. 97-204

REBUTTAL TESTIMONY  
AND EXHIBIT  
OF  
LANE KOLLEN

ON BEHALF OF

ALCAN ALUMINUM CORPORATION  
SOUTHWIRE COMPANY

J. KENNEDY AND ASSOCIATES, INC.  
ATLANTA, GEORGIA

NOVEMBER 1997

*J. Kennedy and Associates, Inc.*

COMMONWEALTH OF KENTUCKY  
BEFORE THE  
PUBLIC SERVICE COMMISSION OF KENTUCKY

In the Matter of: )  
)  
Big Rivers Electric Corporation, )  
Louisville Gas and Electric Company, )  
Western Kentucky Energy Corp., ) Case No. 97-204  
Western Kentucky Leasing Corp., and )  
LG&E Station Two Inc. )  
for Approval of Wholesale Rate Adjustment )  
for Big Rivers Electric Corporation and for )  
Approval of Transaction )

REBUTTAL TESTIMONY OF LANE KOLLEN

1 Q. Please state your name and business address.

2

3 A. My name is Lane Kollen. My business address is J. Kennedy and Associates, Inc. ("Kennedy and  
4 Associates"), 35 Glenlake Parkway, Suite 475, Atlanta, Georgia 30328.

5

6 Q. Please state your name and business address.

7

8 A. My name is Lane Kollen. My business address is J. Kennedy and Associates, Inc., 35 Glenlake  
9 Parkway, Suite 475, Atlanta, Georgia 30328.

10

*J. Kennedy and Associates, Inc.*

1 Q. Have you previously testified in this proceeding?

2

3 A. Yes. I have filed direct testimony addressing the Big Rivers revenue requirement under base case and  
4 multi-jurisdictional scenarios, which in turn were utilized by Smelters witness Mr. Baron for cost of  
5 service studies.

6

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

8

9 A. The purpose of this testimony is to respond to the direct testimony of Attorney General ("AG")  
10 witness Mr. Brown Kinloch on two issues. The first issue is that the purchases by Big Rivers from  
11 LG&E do in fact include a demand component and therefore the TIER 2 smelter rates contribute to  
12 Big Rivers debt service. The second issue is that the total level of debt service (both principal and  
13 interest) made by the Smelters is appropriate.

14

15 Q. Please summarize your rebuttal testimony.

16

17 A. Mr. Brown Kinloch failed to recognize that the Smelters do in fact make substantial contributions  
18 toward debt service under both the TIER 1 and TIER 2 rate structure in addition to the explicit

1 57.57/kW demand component in the kWh charge under TIER 1, which Mr. Brown Kinloch does  
2 acknowledge. There are additional embedded demand components in the kWh charges under both the  
3 TIER 1 and TIER 2 rate structure that Mr. Kinloch simply ignored.

4  
5 Mr. Brown Kinloch failed to recognize that the purchased power rates paid by Big Rivers to LPM on  
6 a kWh basis necessarily provides WKEC recovery of both fixed (demand) and variable (energy) costs.  
7 Among those fixed costs are the lease and transmission payments that WKEC is obligated to pay Big  
8 Rivers. Thus, although Big Rivers purchases its requirements from LPM on a kWh basis, there are  
9 fixed and variable components embedded in the kWh rates. These fixed components are returned to  
10 Big Rivers through the lease and transmission payments by WKEC, which in turn will be used by Big  
11 Rivers for debt service.

12  
13 The Smelters contribution to total debt service is appropriate when both principal and interest  
14 payments are considered. Similar to a home mortgage, Big Rivers' debt service payments include  
15 proportionally more interest in the early years when the Smelters are on the system, and in the later  
16 years, the debt payments included proportionally more principal. Mr. Brown Kinloch failed to consider  
17 this basic economic concept.

18  
19 In addition, Mr. Brown Kinloch is incorrect in his assumption regarding the obligations of the  
20 ratepayers to repay creditors. The creditors have accepted the repayment credit risk under the Plan,

1 not the ratepayers. Nevertheless, the Commission should explicitly state in its order that it has not  
2 guaranteed the creditors recovery of the debt levels under the Plan.

3  
4 Q. Mr. Brown Kinloch states that the Smelters TIER 2 rate makes no significant contribution to  
5 paying off the Big Rivers debt. Is this statement correct?

6  
7 A. No. Mr. Brown Kinloch drew this conclusion by comparing the Smelters TIER 2 rate to the  
8 contractual purchased power rate paid by Big Rivers to LPM. This is not a correct comparison because  
9 it rests on the premise that the purchased power rate per kWh paid by Big Rivers to WKEC  
10 incorporates no embedded demand component. Because there is an embedded demand component in  
11 the purchased power rate, the Smelters TIER 2 rate necessarily provides Big Rivers a contribution  
12 toward debt service.

13 It is the embedded demand component in the Smelters TIER 2 rate that provides Big Rivers the  
14 recovery of the embedded demand component in the purchased power rate. This revenue stream from  
15 the Smelters essentially flows through Big Rivers to the LG&E parties, which then provides to the  
16 LG&E parties the ability to make the lease and transmission payments to Big Rivers as contemplated  
17 under the Plan.

1 Q. Does the embedded demand component in the purchased power rate paid by Big Rivers to LPM  
2 provide the majority of the revenues necessary for the LG&E parties to make the lease and  
3 transmission payments to Big Rivers?  
4

5 A. Yes. The embedded demand component paid by Big Rivers to LPM through the purchased power rate  
6 is returned to Big Rivers, at least in part, in order for Big Rivers to meet its debt service requirements.  
7

8 Q. Mr. Brown Kinloch has computed the annual contributions of each customer class to Big Rivers  
9 debt service requirements as a proxy for customer class contributions to fixed costs on his Exhibit  
10 DHBK-6. Is this an appropriate methodology to determine customer class contributions?  
11

12 A. No. First, the only accurate methodology to determine contributions to fixed costs is to perform a  
13 detailed cost of service study. Debt service costs are only one component of fixed costs. Thus, this  
14 computation, even if performed correctly, is not a substitute for a detailed cost of service study  
15 incorporating all costs and, as such, does not represent even a rough approximation of the contribution  
16 to fixed costs from each customer class.  
17

18 Second, Mr. Brown Kinloch's computations ignore the contributions made by each customer class to  
19 debt service through the embedded demand component in the energy charge. The embedded demand

1 component is paid through the energy charges under customer rate tariffs to Big Rivers, then paid by  
2 Big Rivers to LPM and then returned to Big Rivers through the lease and transmission payments.  
3 These lease and transmission payments are used by Big Rivers for debt service. Mr. Kinloch did not  
4 consider the lease and transmission payments in his analysis. If these lease and transmission payments  
5 are incorporated into Mr. Brown Kinloch's analysis, then the Smelters contribution toward debt service  
6 is increased in relation to the other customer classes.

7

8 Q. Have you prepared an exhibit to demonstrate that the Smelters contribution toward debt service  
9 is increased when the lease and transmission payments are factored into the analysis?

10

11 A. Yes. My Rebuttal Exhibit \_\_\_(LK-R1) demonstrates that there would be an increase in the Smelters'  
12 contribution toward debt service in relation to the other customer classes through 2012. For example,  
13 in 2002, the Smelters contribute 40.46% of the total debt service compared to the 33.48% contribution  
14 computed by Mr. Brown Kinloch. This exhibit is a modification of Mr. Brown Kinloch's Exhibit  
15 DHBK-6 and incorporates the percentage contribution by customer class format of Mr. Brown  
16 Kinloch's Exhibit DHBK-10. However, I would hasten to add that this analysis, although improved  
17 from Mr. Brown Kinloch's, still is not complete because it does not reflect the totality of contributions  
18 toward fixed costs by each customer class, an analysis that requires a detailed cost of service study.  
19 Thus, no conclusions can be or should be drawn from this exhibit regarding relative customer class  
20 contributions toward fixed costs. I have included it only to demonstrate the incremental effect of the  
21 lease and transmission payments on customer class contributions toward debt service.

1 Q. Mr. Brown Kinloch utilized the customer class contributions toward debt service computed on his  
2 Exhibit DHBK-6 in the development of his Exhibits DHBK-7, DHBK-10, and DHBK-11. What  
3 is the validity of these exhibits?  
4

5 A. These exhibits are flawed and have lead to incorrect conclusions by Mr. Kinloch. For the reasons I  
6 previously cited, Exhibit DHBK-6 is conceptually flawed, irrelevant, and misleading. Thus, any exhibits  
7 that are dependent upon Exhibit DHBK-6 necessarily suffer from at least the same infirmities and  
8 cannot be relied on. Once again, these exhibits are not a substitute for a detailed cost of service study  
9 and the customer class contributions toward fixed costs presented on DHBK-10 and DHBK-11 simply  
10 are incorrect.  
11

12 Q. Another criticism of the Plan by Mr. Brown Kinloch is that only 36% of the debt principal will  
13 have been paid by the end of 2012 when the Smelters' contracts have both expired. Is this a  
14 relevant issue?  
15

16 A. No. Debt service is not measured only on the repayment of principal, but rather on the sum of  
17 interest and principal. When the balance of debt is higher in the earlier years, the interest expense is  
18 necessarily higher than when the balance of debt is lower in the later years. The projected debt service  
19 schedule, agreed to by the lenders, represents a largely levelized combination of interest and debt  
20 principal repayment. The projected debt service schedule is analogous to a home mortgage payment,



1 where the payments are levelized, but the principal is repaid more rapidly in later years as the interest  
2 component declines. Thus, Mr. Brown Kinloch's analysis which did not consider total debt service is  
3 misleading and not instructive.

4

5 Q. Mr. Brown Kinloch has proposed a revision to customer rates under the Plan based, in part, upon  
6 an accelerated debt repayment schedule. Please comment.

7

8 A. Mr. Brown Kinloch has unilaterally determined that Big Rivers' lenders should be paid differently than  
9 under the Plan's projected debt service and repayment schedule. While Mr. Brown Kinloch asserts his  
10 new repayment schedule is better for creditors, his Exhibit DHBK-22 shows that there actually would  
11 be less debt service to creditors through 2003 under his "plan." This is not the deal the RUS and New  
12 York banks agreed to. The RUS and the New York banks have agreed to the repayment schedule and  
13 have accepted the credit risks under the confirmed Plan of Reorganization. After 2003, Mr. Brown  
14 Kinloch's "plan" accelerates payments to the creditors by more than \$30 million, all of which would  
15 be paid by the Smelters. The Smelters have not and would not agree to this debt service schedule or  
16 the rates proposed by Mr. Brown Kinloch to achieve that schedule. Mr. Brown Kinloch's positions  
17 were not bargained for by the parties and, if adopted, will cause the confirmed Plan of Reorganization  
18 to fail. Smelter witness Mr. Kleiman discussed in his direct testimony the serious ramifications of  
19 changes to the rates contained in the confirmed Plan of Reorganization.

20

1 Q. Do you agree with Mr. Brown Kinloch that ratepayers have a regulatory obligation now or at any  
2 future time to repay the creditors of Big Rivers?

3

4 A. No. Mr. Brown Kinloch has incorrectly assumed that the Commission and ratepayers have a  
5 regulatory obligation to repay the level of debt incorporated in the Plan. First, recognition of such an  
6 obligation has not been sought either by the Company or by the creditors. The risk of debt repayment  
7 belongs to the creditors. Thus, the Commission would have no reason to assert or even tacitly to  
8 assume such an obligation.

9

10 Second, the level of debt under the Plan is overstated at current interest rate levels. According to Mr.  
11 Hite's direct testimony, Big Rivers will have to write down and defer as a regulatory asset for future  
12 amortization the difference between the current valuation of debt and the stated balance under the Plan.  
13 There also is the possibility that Big rivers will have to writedown its assets and debt regardless of  
14 whether it can defer a writedown for future amortization. Thus, even if there were any ratepayer  
15 obligation for the debt under the Plan, it should be quantified at the writedown valuation, not the pre-  
16 writedown valuation.

17

18 Third, the Commission never has established rates based upon a revenue requirement and cost of service  
19 that explicitly included the Wilson plant investment or the Company's total debt including the total  
20 Wilson related debt. The Commission has made no final determination of the Company's level of

1 excess capacity, Wilson prudence, the excessive cost of Wilson, or the revenue requirement inclusive  
2 of these costs. None of the parties have proposed that the Commission make such determinations in  
3 this proceeding. Thus, these issues have not been foreclosed for Commission consideration in future  
4 proceedings should the Company file for future rate increases.

5

6 Q. Could the Commission include language in its order explicitly stating that it has made no final  
7 determination on the issues of excess capacity, Wilson prudence, the excessive cost of Wilson, the  
8 revenue requirement, or the total level of debt under the Plan?

9

10 A. Yes, that would be appropriate.

11

12 Q. If the rates under the Plan are not approved as negotiated, would the Smelters recommend in a  
13 rate proceeding the same level of rates as incorporated in the Plan?

14

15 A. No. The Smelters would pursue the issues of excess capacity, Wilson prudence, the excessive cost of  
16 Wilson, and other revenue requirement issues that would result in a substantially lower revenue  
17 requirement and substantially lower rate tariff recommendations. The Smelters' rate recommendations  
18 would be based upon a substantially lower revenue requirement and a detailed cost of service study  
19 rather than the negotiated rate tariffs under the Plan. The rates under the Plan represent a compromise

1 by the Smelters and should not be interpreted by Mr. Brown Kinloch or other parties as the Smelters'  
2 litigation position if the Plan's customer rate tariffs are not approved.

3

4 Q. Does this complete your rebuttal testimony?

5

6 A. Yes.

STATE OF GEORGIA


COUNTY OF FULTON

The foregoing rebuttal testimony is true and correct to the best of my knowledge and belief.

Dated this 6th day of November 1997

  
\_\_\_\_\_  
Lane Kollen

SUBSCRIBED AND SWORN to before me by Lane Kollen this 6th day of November 1997.

  
\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_  
Notary Public, State of Georgia  
My Commission Expires January 29, 2001

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EXHIBIT  
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SOUTHWIRE COMPANY

J. KENNEDY AND ASSOCIATES, INC.  
ATLANTA, GEORGIA

NOVEMBER 1997

**BROWN KINLOCH EXHIBIT DHBK-6 MODIFIED TO REFLECT  
CLASS CONTRIBUTIONS TO DEBT SERVICE THROUGH ENERGY RATES**

**Rural Customers**

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Rural Contribution to Fixed Costs Per Exhibit DHBK-6	\$10,269,624	\$31,243,473	\$32,229,786	\$33,120,145	\$33,691,853	\$34,497,840	\$35,335,233	\$36,149,065	\$36,963,466
Total Rural Energy	576,229	1,778,467	1,834,249	1,887,509	1,942,554	1,999,704	2,059,328	2,121,514	2,186,449
Energy Rate Fixed Costs	17.941	0.573	1.438	3.140	3.394	3.430	3.463	3.444	3.441
Fixed Contribution From Energy Rate	\$10,337,994	\$1,019,028	\$2,637,686	\$5,925,966	\$6,593,828	\$6,858,508	\$7,131,782	\$7,306,878	\$7,523,166
Total Fixed Cost Contribution	\$20,607,618	\$32,262,501	\$34,867,472	\$39,046,111	\$40,285,681	\$41,356,348	\$42,467,015	\$43,455,943	\$44,486,632
Percentage of Total Contribution	28.15%	41.18%	39.10%	37.19%	38.16%	38.82%	43.02%	43.46%	44.20%
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Rural Contribution to Fixed Costs Per Exhibit DHBK-6	\$37,648,284	\$43,268,375	\$43,885,544	\$44,458,324	\$44,971,538	\$48,023,217	\$48,482,890	\$49,117,606	\$49,601,041
Total Rural Energy	2,252,601	2,321,510	2,393,257	2,467,922	2,545,373	2,625,302	2,707,790	2,792,924	2,880,785
Energy Rate Fixed Costs	3.436	3.432	3.431	3.429	3.426	3.649	3.867	3.875	3.883
Fixed Contribution From Energy Rate	\$7,740,535	\$7,968,537	\$8,211,931	\$8,462,769	\$8,720,968	\$9,580,595	\$10,470,089	\$10,822,787	\$11,185,824
Total Fixed Cost Contribution	\$45,388,819	\$51,236,912	\$52,097,475	\$52,921,093	\$53,692,506	\$57,603,812	\$58,952,979	\$59,940,393	\$60,786,865
Percentage of Total Contribution	44.85%	46.82%	47.49%	48.18%	48.91%	48.81%	53.39%	54.16%	54.96%
	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
Rural Contribution to Fixed Costs Per Exhibit DHBK-6	\$50,037,494	\$50,606,446	\$51,130,831	\$51,638,974	\$51,924,192	\$52,138,617	\$52,537,831	\$52,893,492	
Total Rural Energy	2,971,455	3,065,035	3,161,617	3,261,296	3,364,178	3,470,376	3,579,981	3,693,048	
Energy Rate Fixed Costs	3.890	3.897	3.904	3.911	3.917	3.924	3.930	3.937	
Fixed Contribution From Energy Rate	\$11,560,075	\$11,945,800	\$12,343,713	\$12,754,072	\$13,177,919	\$13,616,374	\$14,070,020	\$14,539,905	
Total Fixed Cost Contribution	\$61,597,569	\$62,552,246	\$63,474,544	\$64,393,046	\$65,102,111	\$65,754,991	\$66,607,851	\$67,433,397	\$1,348,371,932
Percentage of Total Contribution	55.76%	56.56%	57.38%	58.21%	59.05%	59.91%	60.79%	61.98%	49.44%

**BROWN KINLOCH EXHIBIT DHBK-6 MODIFIED TO REFLECT  
CLASS CONTRIBUTIONS TO DEBT SERVICE THROUGH ENERGY RATES**

**Other Industrials**

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Other Industrial Contribution to Fixed Costs Per Exhibit DHBK-6	\$5,096,258	\$15,290,115	\$17,677,849	\$17,935,149	\$17,803,049	\$17,677,094	\$17,551,138	\$17,982,489	\$17,814,232
Total Other Industrial Energy	437,189	1,311,618	1,578,667	1,611,534	1,285,257	1,285,257	1,285,257	1,324,858	1,324,858
Energy Rate Fixed Costs	17.941	0.573	1.438	3.140	3.394	3.430	3.463	3.444	3.441
Fixed Contribution From Energy Rate	\$7,843,509	\$751,532	\$2,270,154	\$5,059,523	\$4,362,692	\$4,408,125	\$4,451,050	\$4,563,051	\$4,558,591
Total Fixed Cost Contribution	\$12,939,767	\$16,041,647	\$19,948,003	\$22,994,672	\$22,165,741	\$22,085,219	\$22,002,188	\$22,545,540	\$22,372,823
Percentage of Total Contribution	17.68%	20.48%	22.37%	21.90%	21.00%	20.73%	22.29%	22.55%	22.23%
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Other Industrial Contribution to Fixed Costs Per Exhibit DHBK-6	\$17,553,235	\$19,814,908	\$19,410,826	\$18,980,247	\$18,521,847	\$19,349,883	\$18,837,163	\$18,415,858	\$17,928,310
Total Other Industrial Energy	1,324,858	1,324,858	1,324,858	1,324,858	1,324,858	1,324,858	1,324,858	1,324,858	1,324,858
Energy Rate Fixed Costs	3.436	3.432	3.431	3.429	3.426	3.649	3.867	3.875	3.883
Fixed Contribution From Energy Rate	\$4,552,564	\$4,547,549	\$4,545,957	\$4,543,080	\$4,539,234	\$4,834,845	\$5,122,768	\$5,133,923	\$5,144,302
Total Fixed Cost Contribution	\$22,105,799	\$24,362,457	\$23,956,783	\$23,523,327	\$23,061,081	\$24,184,728	\$23,959,931	\$23,549,781	\$23,072,612
Percentage of Total Contribution	21.84%	22.26%	21.84%	21.42%	21.01%	20.49%	21.70%	21.28%	20.86%
	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
Other Industrial Contribution to Fixed Costs Per Exhibit DHBK-6	\$17,427,514	\$16,992,960	\$16,545,158	\$16,097,356	\$15,568,738	\$15,025,546	\$14,564,496	\$13,580,123	
Total Other Industrial Energy	1,324,858	1,324,858	1,324,858	1,324,858	1,324,858	1,324,858	1,324,858	1,324,858	
Energy Rate Fixed Costs	3.890	3.897	3.904	3.911	3.917	3.924	3.930	3.937	
Fixed Contribution From Energy Rate	\$5,154,195	\$5,163,559	\$5,172,564	\$5,181,172	\$5,189,639	\$5,198,215	\$5,206,949	\$5,216,101	
Total Fixed Cost Contribution	\$22,581,709	\$22,156,519	\$21,717,722	\$21,278,528	\$20,758,377	\$20,223,761	\$19,771,445	\$18,796,224	\$562,156,385
Percentage of Total Contribution	20.44%	20.03%	19.63%	19.23%	18.83%	18.43%	18.05%	17.28%	20.61%



**BROWN KINLOCH EXHIBIT DHBK-6 MODIFIED TO REFLECT  
CLASS CONTRIBUTIONS TO DEBT SERVICE THROUGH ENERGY RATES**

**Smelters**

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Smelter Contribution to Fixed Costs Per Exhibit DHBK-6	\$9,034,664	\$27,109,113	\$26,991,334	\$26,863,313	\$26,449,133	\$26,263,650	\$17,240,886	\$17,076,101	\$16,901,495
Total Smelter Energy	1,706,944	5,120,833	5,120,833	5,120,833	4,910,506	4,910,506	4,910,506	4,910,506	4,910,506
Energy Rate Fixed Costs	17.941	0.573	1.438	3.140	3.394	3.430	3.463	3.444	3.441
Fixed Contribution From Energy Rate	\$30,623,897	\$2,934,140	\$7,363,859	\$16,077,211	\$16,668,280	\$16,841,866	\$17,005,867	\$16,912,671	\$16,896,142
Total Fixed Cost Contribution	\$39,658,561	\$30,043,253	\$34,355,193	\$42,940,524	\$43,117,413	\$43,105,516	\$34,246,753	\$33,988,772	\$33,797,637
Percentage of Total Contribution	54.17%	38.35%	38.53%	40.90%	40.84%	40.46%	34.69%	33.99%	33.58%
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Smelter Contribution to Fixed Costs Per Exhibit DHBK-6	\$16,832,181	\$16,987,585	\$16,796,144	\$16,547,314	\$16,195,363	\$13,401,084	\$7,593,206	\$7,593,206	\$7,593,206
Total Smelter Energy	4,910,506	4,910,506	4,910,506	4,910,506	4,910,506	2,000,259	0	0	0
Energy Rate Fixed Costs	3.436	3.432	3.431	3.429	3.426	3.649	3.867	3.875	3.883
Fixed Contribution From Energy Rate	\$16,873,802	\$16,855,214	\$16,849,313	\$16,838,651	\$16,824,397	\$7,299,606	\$0	\$0	\$0
Total Fixed Cost Contribution	\$33,705,983	\$33,842,799	\$33,645,457	\$33,385,965	\$33,019,760	\$20,700,690	\$7,593,206	\$7,593,206	\$7,593,206
Percentage of Total Contribution	33.31%	30.92%	30.67%	30.40%	30.08%	17.54%	6.88%	6.86%	6.86%
	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
Smelter Contribution to Fixed Costs Per Exhibit DHBK-6	\$7,593,206	\$7,593,206	\$7,593,206	\$7,593,206	\$7,593,206	\$7,593,206	\$7,593,206	\$7,593,206	
Total Smelter Energy	0	0	0	0	0	0	0	0	
Energy Rate Fixed Costs	3.890	3.897	3.904	3.911	3.917	3.924	3.930	3.937	
Fixed Contribution From Energy Rate	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Fixed Cost Contribution	\$7,593,206	\$7,593,206	\$7,593,206	\$7,593,206	\$7,593,206	\$7,593,206	\$7,593,206	\$7,593,206	\$607,079,544
Percentage of Total Contribution	6.87%	6.87%	6.86%	6.86%	6.89%	6.92%	6.93%	6.98%	22.26%

**BROWN KINLOCH EXHIBIT DHBK-6 MODIFIED TO REFLECT  
CLASS CONTRIBUTIONS TO DEBT SERVICE THROUGH ENERGY RATES**

Other Sales

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Other Sales Contribution to Fixed Costs Per Exhibit DHBK-6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Other Sales Energy	0	0	0	0	0	0	0	0	0
Energy Rate Fixed Costs	17.941	0.573	1.438	3.140	3.394	3.430	3.463	3.444	3.441
Fixed Contribution From Energy Rate	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Fixed Cost Contribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Percentage of Total Contribution	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Other Sales Contribution to Fixed Costs Per Exhibit DHBK-6	\$0	\$0	\$0	\$0	\$0	\$11,031,776	\$13,926,974	\$13,749,458	\$13,476,036
Total Other Sales Energy	0	0	0	0	0	1,235,085	1,549,852	1,507,285	1,463,355
Energy Rate Fixed Costs	3.436	3.432	3.431	3.429	3.426	3.649	3.867	3.875	3.883
Fixed Contribution From Energy Rate	\$0	\$0	\$0	\$0	\$0	\$4,507,234	\$5,992,743	\$5,840,841	\$5,682,073
Total Fixed Cost Contribution	\$0	\$0	\$0	\$0	\$0	\$15,539,010	\$19,919,717	\$19,590,299	\$19,158,109
Percentage of Total Contribution	0.00%	0.00%	0.00%	0.00%	0.00%	13.17%	18.04%	17.70%	17.32%
	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
Other Sales Contribution to Fixed Costs Per Exhibit DHBK-6	\$13,186,168	\$12,943,040	\$12,677,724	\$12,383,439	\$12,001,573	\$11,595,616	\$11,216,646	\$10,805,881	
Total Other Sales Energy	1,418,020	1,371,230	1,322,939	1,273,099	1,221,658	1,168,559	1,113,757	1,057,223	
Energy Rate Fixed Costs	3.890	3.897	3.904	3.911	3.917	3.924	3.930	3.937	
Fixed Contribution From Energy Rate	\$5,516,630	\$5,344,291	\$5,165,072	\$4,978,756	\$4,785,392	\$4,584,960	\$4,377,281	\$4,162,394	
Total Fixed Cost Contribution	\$18,702,798	\$18,287,331	\$17,842,796	\$17,362,195	\$16,786,965	\$16,180,576	\$15,593,927	\$14,968,275	\$209,931,998
Percentage of Total Contribution	16.93%	16.54%	16.13%	15.69%	15.23%	14.74%	14.23%	13.76%	7.70%