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**MATHIS, RIGGS & PRATHER, P.S.C.**  
ATTORNEYS AT LAW  
500 MAIN STREET, STE. 5  
SHELBYVILLE, KENTUCKY 40065

MAR 21 2007

PUBLIC SERVICE  
COMMISSION

C. LEWIS MATHIS, JR.  
T. SHERMAN RIGGS  
DONALD T. PRATHER  
NATHAN T. RIGGS

TELEPHONE: (502) 633-5220  
FAX: (502) 633-0667  
e-mail: mrp@iglou.com

March 21, 2007

HAND DELIVERED

Ms. Elizabeth O'Donnell  
Executive Director  
Public Service Commission  
211 Sower Boulevard  
Frankfort, KY 40602

Re: PSC Case No. 2006-00487

Dear Ms. O'Donnell:

Please find enclosed for filing with the Public Service Commission in the above-referenced case an original and five (5) copies of the Responses of **Shelby Energy Cooperative, Inc.**, to the Commission Staff's First Data Requests dated March 12, 2007.

Yours truly,

MATHIS, RIGGS & PRATHER, P.S.C.

By: 

Donald T. Prather  
Attorney for Shelby Energy Cooperative, Inc.

Dtp/mew  
Enc.  
dtp/letters/rate case

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

**In the Matter of:**

<b>APPLICATION OF SHELBY ENERGY</b>	)	
<b>COOPERATIVE, INC. TO PASS-THROUGH AN</b>	)	<b>CASE NO.</b>
<b>INCREASE OF ITS WHOLESALE POWER</b>	)	<b>2006-00487</b>
<b>SUPPLIER PURSUANT TO KRS 278.455(2)</b>	)	

**RESPONSES TO COMMISSION STAFF'S FIRST DATA REQUEST  
TO SHELBY ENERGY COOPERATIVE, INC.  
DATED MARCH 12, 2007**

**SHELBY ENERGY COOPERATIVE, INC.**

**PSC CASE NO. 2006-00487**

**COMMISSION STAFF'S FIRST DATA REQUEST DATED 3/12/07**

Shelby Energy Cooperative, Inc. ("Shelby") hereby submits responses to the Commission Staff's First Data Request dated March 12, 2007. Each response with its associated supportive reference materials is individually tabbed.



**SHELBY ENERGY COOPERATIVE, INC.**

**PSC CASE NO. 2006-00487**

**FIRST DATA REQUEST RESPONSE**

**COMMISSION STAFF'S FIRST DATA REQUEST DATED 3/12/07**

**REQUEST 1**

**RESPONSIBLE PERSON: William A. Bosta**

**COMPANY: Shelby Energy Cooperative, Inc.**

**Request 1.** Refer to the Application, Exhibits II and III.

**Request 1a.** Provide all workpapers, calculations, assumptions, and other documentation used to determine the proposed rates and the billing analysis.

**Response 1a.** Attached is information from EKPC's Exhibit I, Pages 3-5, which shows the present and proposed rates and revenues by wholesale customer class for service to Shelby.

As indicated in Mr. Bosta's testimony, the demand charges for retail industrial rates mirror EKPC's proposed rates for Schedules B and C, as applicable.

The increase applicable to all other classes was based on taking the total increase to the member system, subtracting the retail industrial class increase and then dividing that amount by the kWh for all other classes. This resulted in a per unit (cents/kWh) energy cost increase that was applied to all other classes. The only exceptions are Electric Thermal Storage (ETS) Rate Schedule ETS, Rates 9 and 29, which were designed based on a charge of 60 percent of the energy rate of the related rate class.

See the response to Request 1b for the calculations to determine the proposed rates.

**Request 1b.** Provide in electronic format the Excel spreadsheets used to determine the proposed rates and billing analysis, with all formulas intact.

**Response 1b.** Based on discussion with the Commission Staff on March 19, 2007, attached are two (2) copies of the requested information on CD-ROM.

**Billing Units - Base Rate Revenue**

Rate E	Demand Energy	Rate	10 =	0.00378	
E-1	6.92				
E-2	0.0314				
E-3	0.030988				
COOP	R_GROUP	K004-1	K004-2	BILL-K00	BILL-K00H
1 21	E	470,392,652	440,516,677	1,663,699	510,603,759
2 23	E	222,463,420	205,160,466	894,482	430,653,918
3 27	E	210,787,748	195,290,384	980,758	410,076,712
4 3	E	452,986,417	443,652,958	2,065,271	896,519,975
5 30	E	146,154,897	139,307,277	647,941	285,461,864
6 34	E	230,603,822	223,099,895	852,967	433,703,717
7 37	E	500,365,807	485,225,238	2,061,890	965,591,045
8 49	E	223,901,890	217,477,199	1,001,814	441,378,889
9 51	E	296,221,018	278,073,894	1,286,875	574,235,012
10 52	E	222,824,915	219,464,946	972,808	442,269,861
11 54	E	523,715,951	521,178,813	2,491,582	1,050,854,764
12 56	E	138,656,666	135,512,840	613,735	274,969,328
13 57	E	263,407,107	258,259,408	1,148,221	521,866,515
14 58	E	134,650,874	132,562,550	607,493	287,213,424
15 59	E	3,706,890	4,290,520	13,658	7,957,910
16 61	E	128,984,703	124,373,132	576,431	283,357,855
17 64	E	505,656,894	477,390,894	2,314,298	984,097,878

**Rate E - Interr**

Firm	Demand	Eng-ON	Eng-OFF	R/C						
Interr 60	5.22	2.07	0.038484	0.030988						
#	COOP	NAME	R/C	CMTR-K00	K004-1	K004-2	BILL-K00	BILL-K00H	X5-K00	X5-K00H
1 30	E	Cedar Lake IES		0	1,119,258	1,151,565	5,407	5,407	5,407	5,407
2 51	E	Magnolia Co ES		0	494,289	1,482,468	1,073	1,073	1,073	1,073
3 64	E	Crespin	ES	120	3,673,073	4,516,958	9,482	9,482	9,482	9,482
120					5,155,698	6,832,776	16,062	16,062	16,062	16,062

**Rate B**

Demand	Excess D	Energy	Rate				
7.29	9.72	-0.027325					
#	COOP	R_GROUP	CMTR-K00	BILL-K00	BILL-K00H	X5-K00	X5-K00H
1 21	B		72,800	74,610	44,569,693	1,810	1,810
2 23	B		9,420	10,262	5,705,884	846	846
3 27	B		46,500	54,960	30,046,506	9,490	9,490
4 3	B		51,500	55,198	28,546,399	3,656	3,656
5 30	B		239,723	263,250	170,294,590	23,827	23,827
6 37	B		192,700	208,054	119,181,453	15,334	15,334
7 51	B		81,800	81,800	49,962,903		
8 54	B		64,200	90,058	49,502,574	25,659	25,659
56							
57							
58							
59							
61							
64							
Total B			344,800	399,625	232,692,348	13,625	13,625
			1,103,543	1,198,639	729,694,618	93,116	93,116

**Rate B - Interr**

Firm	Demand	Interr 10	Interr 60	Energy	R/C			
7.29	3.69	4.14	0.027325					
#	COOP	NAME	R/C	CMTR-K00	BILL-K00	BILL-K00H	X5-K00	X5-K00H
1 21	B	Lily Tulip O-BD		69000	69045	38415387	45	45
2 37	B	Air-Liquide BD		3650	92289	85716569	86928	86928
72,800				159,319	105,191,985	86,713	86,713	

Demand	Eng-ON	Eng-OFF	Total	Present Revenue	Revenue Adjustment
10,298,169	18,093,179	13,611,081	41,970,429	38,527,193	3,443,237
5,191,052	8,554,523	6,631,743	20,377,360	18,549,828	1,827,532
3,171,757	8,107,740	6,157,674	19,437,170	17,897,075	1,550,095
10,886,115	17,419,054	13,707,369	42,012,158	38,623,314	3,388,843
3,822,252	5,621,694	4,304,316	13,305,262	12,224,216	1,079,046
4,972,504	6,993,945	6,935,341	20,735,790	18,020,790	1,715,000
14,288,278	15,771,486	14,374,329	44,354,259	40,704,350	3,649,904
5,225,098	8,612,155	6,719,610	20,551,234	18,822,822	1,728,412
6,613,068	11,393,845	8,590,076	26,597,009	24,426,401	2,170,608
8,570,947	8,781,028	20,429,813	38,579,797	36,717,957	1,871,856
13,006,658	20,374,594	16,101,529	49,482,681	43,510,426	5,972,155
3,203,697	5,940,994	4,187,070	12,731,750	11,694,634	1,037,116
5,993,714	10,319,291	7,979,668	24,105,073	22,153,177	1,971,896
3,171,113	5,179,221	4,055,918	12,446,242	11,456,178	1,010,067
3,008,970	4,961,268	3,842,861	11,813,118	10,865,426	957,693
12,090,635	19,489,593	14,750,427	46,330,652	42,890,789	3,718,852
111,593,148	176,574,694	138,659,697	426,827,439	392,164,052	34,663,347

Demand	Eng-ON	Eng-OFF	Total	Present Revenue	Revenue Adjustment
1,162	43,013	35,522	96,707	82,014	8,693
2,274	14,011	14,907	31,140	27,939	3,201
20,213	141,281	142,717	304,210	272,868	31,344
33,626	198,305	184,125	426,056	382,819	43,237

Demand	Excess Dem	Energy	Total	Present Revenue	Revenue Adjustment
530,712	17,593	1,217,867	1,766,172	1,524,413	241,759
398,895	82,231	150,912	232,807	213,301	19,505
375,435	35,538	821,075	1,244,282	1,137,866	104,424
1,747,391	228,682	780,030	1,953,098	1,088,205	104,796
1,404,763	149,048	3,259,653	4,810,462	4,415,196	395,265
596,322	0	1,355,235	1,961,558	1,806,135	155,420
488,018	251,340	1,392,668	2,072,016	1,900,905	171,110
2,511,321	132,435	6,341,623	8,988,679	8,307,462	681,198
8,044,828	905,088	19,944,370	28,894,286	26,620,634	2,273,652

Firm	Demand	Interr	Excess Dem	Energy	Total
593,010	166	1,077,026	580,222	1,571,188	
28,244	319,685	1,737,245	2,143,384	1,971,984	
529,254	319,991	2,874,370	3,420,921	3,022,665	





Demand 0.597689  
 Efficiency 0.931637  
 Heat Rate 9816.3  
 Mbu Demand 38074 \$ /Mbu  
 Energy 89594 \$ /Mbu  
 Mbu-Demand 4394.11  
 Mbu-Energy 2362691.7  
 BILL-KW 508,649  
 BILL-KWH 277,090,529  
 converted  
 Dem Revs. 2,549,500  
 Energy Revenue 6,780,794  
 Total Revenue 9,332,384

Load Center - Normalized

Meter #	LC =	944	2373	2855	4605	Revenue
21	COOP	12	48	228	24	886,682
23		12	12	144	24	439,595
27		12	12	108	24	447,338
3		36	36	240	48	991,668
30		12	12	86	24	413,078
34		12	12	120	12	426,336
37		180	180	180	96	955,980
49		12	144	72	42	613,860
51		108	144	144	48	689,112
52		108	312	312	36	474,120
54		36	36	36	48	1,187,228
56		36	36	84	48	325,248
57		132	132	132	12	517,548
58		12	12	84	268,296	
59		84	84	84	0	410,676
61		228	228	228	84	1,182,992
64		36	540	2384	468	10,219,764
						426,000
						7,500
						554,033,251
						10,653,264

Present Total Revenue	Revenue Adjustment
886,682	0
439,595	0
447,338	0
991,668	0
413,078	0
426,336	0
955,980	0
613,860	0
689,112	0
474,120	0
1,187,228	0
325,248	0
517,548	0
268,296	0
410,676	0
1,182,992	0
10,219,764	0
426,000	0
7,500	0
510,669,030	43,364,220

Grand Total Revenue by Member System

COOP	E	B	C	Inland Containment	Inland Steam	Galatin	IGP	AGC	Load Center	Metering Only	Metering	Present	Proposed Total	Rate Adj
21	41,970,429	0	0	0	0	0	0	0	688,697	39,000	39,000	42,526,334	46,242,515	3,716,181
23	20,177,360	93,468,304	805,315	0	0	0	0	0	439,595	19,500	19,500	24,028,185	25,735,642	1,707,457
27	19,437,170	732,807	1,242,232	800,711	0	0	0	0	447,338	18,000	18,000	21,945,509	20,221,967	1,723,542
3	42,012,158	1,191,062	1,794,928	0	0	0	0	0	991,668	40,500	40,500	42,020,253	46,020,253	3,665,595
30	13,368,958	0	0	0	0	0	0	0	413,078	18,500	18,500	18,671,430	20,459,344	1,897,914
34	20,735,790	0	2,517,318	0	0	0	0	0	426,336	18,000	18,000	21,777,590	23,697,444	1,919,854
37	44,384,295	0	0	0	0	33,842,557	0	0	955,980	34,500	34,500	86,141,167	78,952,694	7,188,493
49	26,628,149	1,981,558	0	0	0	0	0	0	613,860	30,000	30,000	21,325,317	19,645,605	1,679,812
51	20,429,813	0	7,285,238	0	0	0	0	0	689,112	27,000	27,000	34,611,462	31,635,330	2,976,132
52	12,751,750	0	3,494,417	0	0	0	0	0	474,120	18,000	18,000	51,043,371	47,484,230	3,559,141
54	49,482,581	2,072,016	0	0	0	0	0	0	1,197,228	49,500	49,500	56,297,242	51,840,182	4,457,060
56	24,105,073	0	0	0	0	0	0	0	325,248	15,000	15,000	13,071,988	12,034,682	1,037,306
57	12,446,242	0	0	0	0	0	0	0	517,548	22,500	22,500	24,645,121	22,673,225	1,971,896
58	344,503	0	0	0	0	0	0	0	268,296	12,000	12,000	12,726,538	11,716,472	1,010,067
61	11,813,118	0	659,535	0	0	0	0	0	410,676	0	0	314,498	314,498	30,005
64	46,624,852	8,988,679	0	0	0	0	0	0	1,182,992	46,500	46,500	12,901,523	11,690,088	1,212,741
												56,823,033	52,590,640	4,432,394
												510,669,030	510,669,030	43,364,220
												426,000	426,000	0
												7,500	7,500	0
												554,033,251	554,033,251	0
												10,653,264	10,653,264	0

Shelby Energy Cooperative  
Billing Analysis  
for the 12 months ended September 30, 2006

	Total \$ Present Rate	Total \$ Proposed Rate	\$ Increase	% Increase
Schedule 1 General Service	8,819,817	9,158,925	339,108	3.84%
Schedule ETS Off-Pk Retail Mkt Rate	31,013	32,247	1,234	3.98%
Schedule 2 Lg Power Service >50 kW	3,105,183	3,246,419	141,236	4.55%
Schedule 3 - Outdoor & Str Lighting	337,674	345,190	7,516	2.23%
Schedule 10 - Optional Res, Church & School	9,294,111	9,706,538	412,428	4.44%
Schedule B-1 Lg Industrial Rate	7,350,653	7,865,097	514,444	7.00%
Sch B-2 Lg Industrial Rate	2,553,357	2,725,305	171,948	6.73%
	<u>31,491,807</u>	<u>33,079,721</u>	<u>1,587,914</u>	<u>5.04%</u>

Shelby Energy Cooperative Billing Analysis  
for the 12 months ended September 30, 2006

Schedule 1  
General Service  
Rate 1: 11, 14; 31

E-Based kWh	Existing			Proposed			\$ Increase	% Increase	Dmd \$	Energy \$
	Billing Determinants	Current	Annualized	Billing Determinants	Rate	Annualized				
		Rate	Revenues		Rate	Revenues				
Customer Charge	102,395	\$7.18	\$735,196	102,395	\$7.18	735,196	-	0.00%		
Energy charge per kWh										
First 600 kWh	58,067,339	58,067,339	\$0.06758	3,924,191	58,067,339	\$0.07096	4,120,692	196,501	5.01%	196,501
Next 1400 kWh	37,548,840	37,548,840	\$0.06593	2,471,840	37,548,840	\$0.06921	2,598,906	127,066	5.14%	127,066
all over 2000 kWh	4,592,366	4,592,366	\$0.05451	296,254	4,592,366	\$0.06789	311,794	15,541	5.25%	15,541
<b>Total from base rates</b>			<b>7,427,481</b>			<b>7,766,589</b>	<b>339,108</b>	<b>4.57%</b>		
Fuel adjustment			788,311			788,311	-	0.00%		
Environmental surcharge			604,025			604,025	-	0.00%		
<b>Total revenues</b>			<b>\$8,819,817</b>			<b>9,158,925</b>	<b>339,108</b>	<b>3.84%</b>		
<b>Average Bill</b>			<b>\$86.14</b>			<b>89.45</b>	<b>3.31</b>	<b>3.84%</b>		

Schedule ETS  
Off-Peak Retail Marketing Rate  
Rate 9; 29

E-Based kWh	Existing			Proposed			\$ Increase	% Increase	Dmd \$	Energy \$
	Billing Determinants	Current	Annualized	Billing Determinants	Rate	Annualized				
		Rate	Revenues		Rate	Revenues				
Customer Charge	95		\$0	95	\$0.00	-				
Sch 9 27 Cust, Sch 29 68 Cust										
Energy charge per kWh	608,765	608,765	\$0.03871	23,565	608,765	\$0.04074	24,799	1,234	5.23%	1,234
<b>Total from base rates</b>			<b>23,565</b>			<b>24,799</b>	<b>1,234</b>	<b>5.23%</b>		
Fuel adjustment			5,488			5,488	-	0.00%		
Environmental surcharge			1,960			1,960	-	0.00%		
<b>Total revenues</b>			<b>\$31,013</b>			<b>32,247</b>	<b>1,234</b>	<b>3.98%</b>		
<b>Average Bill</b>			<b>\$326.46</b>			<b>339</b>	<b>12.99</b>	<b>3.98%</b>		

Schedule 2  
Large Power Service >50kW  
Rate 2: 5; 21; 32

E-Based kWh	Existing			Proposed			\$ Increase	% Increase	Dmd \$	Energy \$
	Billing Determinants	Current	Annualized	Billing Determinants	Rate	Annualized				
		Rate	Revenues		Rate	Revenues				
Customer Charge	775	\$0.00	\$0	775	\$0.00	-				
Demand Charge	128,622	\$4.50	578,799	128,622	\$4.50	578,799	-	0.00%		
Energy Charge										
First 100 kWh Per KW	12,264,204	12,264,204	\$0.05384	660,305	12,264,204	\$0.05722	701,707	41,402	6.27%	41,402
Next 100 kWh Per KW	11,310,936	11,310,936	\$0.04827	545,979	11,310,936	\$0.05165	584,163	38,184	6.99%	38,184
All over 200 kWh Per KW	18,262,362	18,262,362	\$0.04271	779,985	18,262,362	\$0.04609	841,636	61,651	7.90%	61,651
<b>Total BaseLoad Charges</b>			<b>\$2,665,066</b>			<b>2,706,304</b>	<b>141,236</b>	<b>5.51%</b>		
Fuel adjustment			328,378			328,378	-	0.00%		
Environmental surcharge			211,737			211,737	-	0.00%		
<b>Total revenues</b>			<b>\$3,105,183</b>			<b>3,246,419</b>	<b>141,236</b>	<b>4.55%</b>		
<b>Average Bill</b>			<b>\$ 4,006.69</b>			<b>4,189</b>	<b>182.24</b>	<b>4.55%</b>		

Shelby Energy Cooperative Billing Analysis  
for the 12 months ended September 30, 2006

Schedule 3  
Outdoor & Street Lighting Service

E-Based kWh	Existing			Proposed			\$ Increase	% Increase	Dmd \$	Energy \$
	Billing Determinants kWh	Current	Annualized	Billing Determinants	Rate	Annualized Revenues				
		Rate	Revenues		Rate	Revenues				
Customer Charge										
100 Watt HPS Security light	1,659,450	1,659,450	\$0.17	\$277,000.50	1,659,450	\$0.17030	282,603	5,602	2.02%	5,602
250 Watt Directional Flood	286,056	286,056	\$0.11	\$30,446.88	286,056	\$0.10981	31,413	966	3.17%	966
100 Watt Decorative Colonial	32,292	32,292	\$0.23	\$7,369.20	32,292	\$0.23158	7,478	109	1.48%	109
400 Watt Directional Flood	240,408	240,408	\$0.08	\$18,733.68	240,408	\$0.08130	19,545	812	4.33%	812
150 Watt Decorative Acorn	8,352	8,352	\$0.18	\$1,513.44	8,352	\$0.18458	1,542	28	1.86%	28
				335,064			342,580			
			FAC	1,031			1,031			
			ES	1,579			1,579			
				<u>337,674</u>			<u>345,190</u>	7,516	2.23%	

Shelby Energy Cooperative Billing Analysis  
for the 12 months ended September 30, 2006

Schedule 10  
Optional Residential, Church and School Service  
Rate 10; 13; 40; 88

E-Based kWh	Existing			Proposed			\$ Increase	% Increase	Dmd \$	Energy \$
	Billing Determinants	Current	Annualized	Billing Determinants	Rate	Annualized Revenues				
		Rate	Revenues		Rate	Revenues				
Customer Charge										
Single Phase	73,368	73,368	\$11.35	\$832,727	73,368	\$11.35	832,727	-	0.00%	
Three-Phase Service	144	144	\$29.50	\$4,248	144	\$29.50	4,248	-	0.00%	
Energy charge per kWh	122,170,911	122,170,911	\$0.05618	6,863,562	122,170,911	\$0.05966	7,275,989	412,428	6.01%	412,428
				<u>7,700,537</u>			<u>8,112,964</u>	412,428	5.36%	
Total from base rates										
Fuel adjustment				960,538			960,538	-	0.00%	
Environmental surcharge				633,036			633,036	-	0.00%	
				<u>\$9,294,111</u>			<u>9,706,538</u>	412,428	4.44%	
Total revenues										
Average Bill			\$	126.43			132	5.61	4.44%	

Schedule B-1  
Large Industrial Rate  
Rate 8; 36

E-Based kWh	Existing			Proposed			\$ Increase	% Increase	Dmd \$	Energy \$
	Billing Determinants	Current	Annualized	Billing Determinants	Rate	Annualized Revenues				
		Rate	Revenues		Rate	Revenues				
Customer Charge	131	131	\$535.00	\$70,085	131	\$535.00	70,085	-	0.00%	
Demand Charge	246,975	246,975	\$5.39	1,331,195	246,975	\$7.29	1,800,448	469,253	35.25%	469,253
Excess Demand	23,785	23,785	\$7.82	185,989	23,785	\$9.72	231,190	45,192	24.30%	45,192
Energy Charge										
First 100 kW	121,456,449	121,456,449	\$0.03567	4,332,352	121,456,449	\$0.03567	4,332,352	-	0.00%	
				<u>\$5,919,630</u>			<u>6,434,074</u>	514,444	8.69%	
Total Baseload Charges										
Fuel adjustment				938,402			938,402	-	0.00%	
Environmental surcharge				492,621			492,621	-	0.00%	
				<u>\$7,350,653</u>			<u>7,865,097</u>	514,444	7.00%	
Total Revenues										
Average Bill			\$	56,111.86			60,039	3,927.05	7.00%	

Shelby Energy Cooperative Billing Analysis  
for the 12 months ended September 30, 2006

Schedule B-2  
Large Industrial Rate  
Rate 28

E-Based kWh	Existing			Proposed			\$ Increase	% Increase	Dmd \$	Energy \$
	Billing Determinants	Current	Annualized	Billing Determinants	Rate	Annualized				
		Rate	Revenues		Rate	Revenues				
Customer Charge	12	\$1,089.00	\$12,828	12	\$1,089	12,828	-	0.00%		
Demand Charge	87,600	\$6.39	472,164	87,600	\$7.29	638,604	166,440	35.25%	166,440	
Excess Demand	2,899	\$7.82	22,670	2,899	\$9.72	28,178	5,508	24.30%	5,508	
Energy Charge Per kWh	48,771,157	\$0.03067	1,495,811	48,771,157	\$0.03067	1,495,811	-	0.00%		
Total Baseload Charges			<u>\$2,003,474</u>			<u>2,175,422</u>	<u>171,948</u>	<u>8.58%</u>		
Fuel adjustment			374,879			374,879	-	0.00%		
Environmental surcharge			175,004			175,004	-	0.00%		
Total Revenues			<u>\$2,553,357</u>			<u>2,725,305</u>	<u>171,948</u>	<u>6.73%</u>		
Average Bill			\$ 212,779.71			227,109	14,329.01	6.73%		
Non 'B' & 'C' Energy	267,052,281									

\$ 1,587,914 Total Revenue Req

686,392 901,522 901,522 Less Dmd \$  
0.00338 per kWh

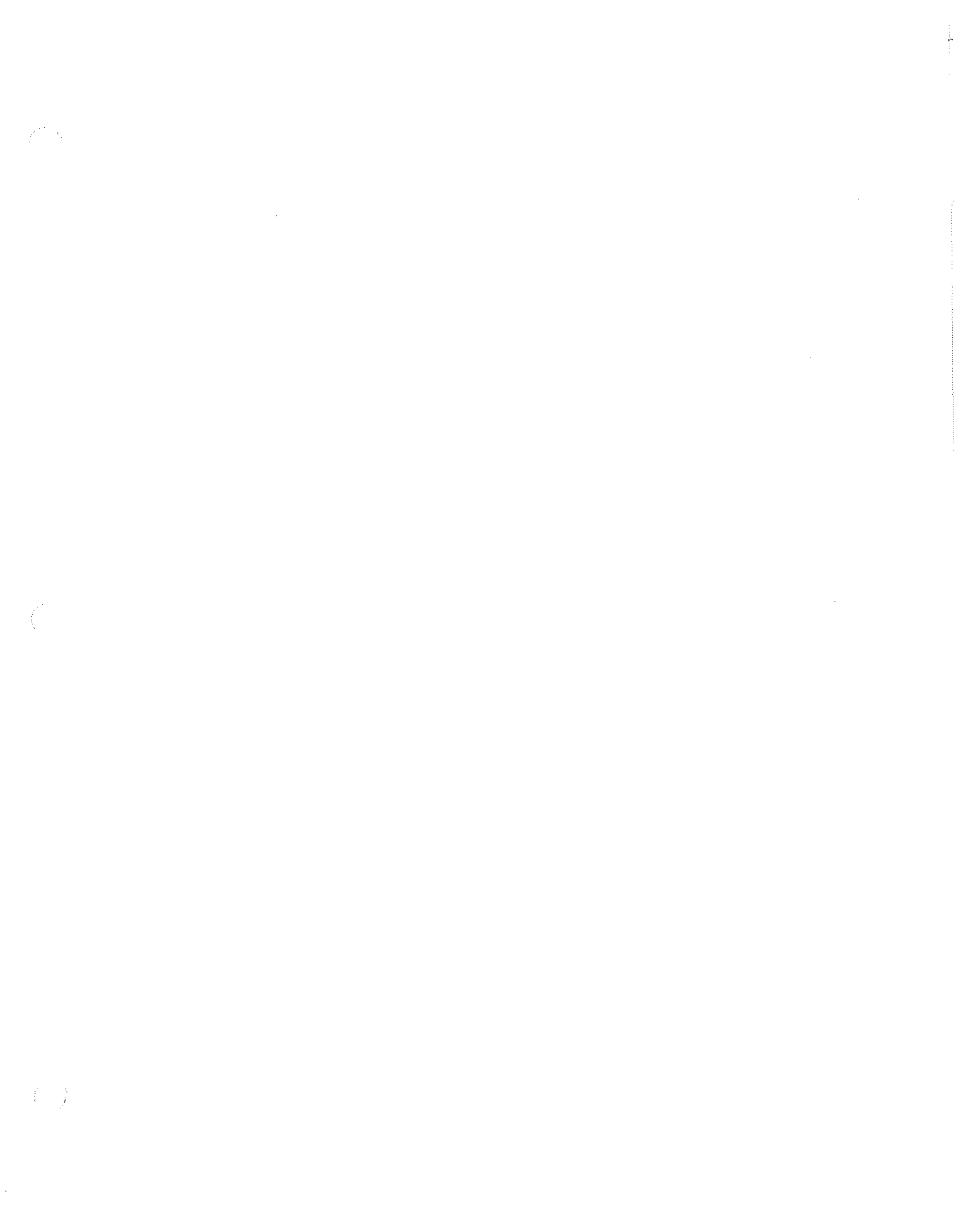
1,587,914

0.00

Shelby Energy Cooperative Billing Analysis  
for the 12 months ended September 30, 2006

Rate 3, Outdoor & Street Lighting	Existing					Per kWh	Proposed			Per kWh	\$ Increase	% Increase		
	Billing Determinants	kWh	Current	Annualized	Billing Determinants		Rate	Revenues	Billing Determinants				Rate	Revenues
			Rate	Revenues			Rate	Revenues						
100 Watt HPS Security light	39	42,550	1,659,450	\$6.51	277,001	0.16692	42,550	6.64	282,603	0.17030	0.13	2.02%		
250 Watt Directional Flood	87	3,288	286,056	\$9.26	30,447	0.10644	3,288	9.55	31,413	0.10981	0.29	3.17%		
100 Watt Decorative Colonial	39	828	32,292	\$8.90	7,369	0.22821	828	9.03	7,478	0.23158	0.13	1.48%		
400 Watt Directional Flood	159	1,512	240,408	\$12.39	18,734	0.07792	1,512	12.93	19,545	0.08130	0.54	4.33%		
150 Watt Decorative Acorn	58	144	8,352	\$10.51	1,513	0.18121	144	10.71	1,542	0.18458	0.20	1.86%		
<b>Total Base Rates</b>		<b>48,322</b>	<b>2,226,558</b>		<b>335,064</b>		<b>48,322</b>		<b>342,580</b>		<b>\$7,516</b>	<b>2.24%</b>		
FAC					1,031				1,031					
ES					1,579				1,579					
<b>Total</b>					<b>337,674</b>				<b>345,190</b>		<b>7,516</b>	<b>2.23%</b>		
<b>Average Bill</b>					<b>6.99</b>				<b>7.14</b>		<b>0.16</b>	<b>2.23%</b>		

David Graham will call me with kWh



**SHELBY ENERGY COOPERATIVE, INC.**

**PSC CASE NO. 2006-00487**

**FIRST DATA REQUEST RESPONSE**

**COMMISSION STAFF'S FIRST DATA REQUEST DATED 3/12/07**

**REQUEST 2**

**RESPONSIBLE PERSON: William A. Bosta**

**COMPANY: Shelby Energy Cooperative, Inc.**

**Request 2.** KRS 278.455(2) provides that a distribution cooperative may change its rates to reflect a change in the rate of its wholesale supplier if the effects of an increase or decrease are allocated to each class and within each tariff on a proportional basis that will result in no change in the rate design currently in effect. 807 KAR 5:007, Section 2(2), provides that the distribution cooperative shall file an analysis demonstrating that the rate change does not change the rate design currently in effect and the revenue change has been allocated to each class and within each tariff on a proportional basis. In the cover letter to its Application, Shelby states:

In each instance, the retail rates for a particular class have been developed in a manner that is consistent with the method proposed by EKPC. The proposed rate design structure at retail does not change the rate design currently in effect and is consistent with the rate design methodology used at wholesale.

**Request 2a.** For each retail Rate Schedule listed in Exhibit II of the Application, identify the corresponding wholesale Rate Schedule of East Kentucky Power Cooperative, Inc.

**Response 2a.** Please see the attached information.



**Request 2b.** Would Shelby agree that KRS 278.455(2) and 807 KAR 5:007, Section 2(2), require that increases or decreases in rates from the wholesale supplier must be allocated to each retail class and within each retail tariff on a proportional basis? Explain the response.

**Response 2b.** Yes. EKPC and each Member System understands these requirements and have developed proposed rates that meet the intent of KRS 278.455(2) and 807 KAR5:007. As explained in Mr. Bosta's testimony, EKPC began the rate design process at wholesale by allocating the proposed rate increase to each rate class on a proportional basis. The proportional increase to each rate class was then applied to the most appropriate rate mechanism for each rate class.

The proposed increase at retail is strictly a pass-through of EKPC's increased wholesale costs and each Member System must recover the dollar increase from new wholesale rates. As a result, EKPC and each Member System recognized that it was important to implement retail rates that mirror the change at wholesale, while meeting the proportionality and rate design requirements.

EKPC and its Member Systems understand that a "pure" proportional increase at retail, as discussed in Item 3 herein, would result in increases at retail to customer, demand and energy charges. However, EKPC and its Member Systems came to the conclusion that, for example, an increase in the customer charge at retail made no sense because the wholesale increase had no relationship to customer cost. EKPC has not proposed an increase in its substation charges or metering point charges in this proceeding. Consequently, EKPC and its Member Systems could not justify increasing the retail customer charge when the wholesale increase has no relationship to that cost.

Therefore, EKPC believes that its proposed wholesale increase using a proportional basis, coupled with the use of the wholesale rate design methodology at retail, is a reasonable approach to meeting the intent of the requirements.

**Request 2c.** Would Shelby agree that KRS 278.455(2) and 807 KAR 5:007, Section 2(2), require that the retail rate change does not change the retail rate design currently in effect? Explain the response.

**Response 2c.** Yes. EKPC and its Member Systems understand the requirements set forth in KRS 278.455(2) and 807 KAR 5:007 and believe that the proposed rates do not alter the existing rate design structure at retail.

As indicated in the response to Item 2b, the rate design used for the pass-through increase at retail was intended to meet these requirements, while also maintaining the existing wholesale/retail rate design relationship and recognizing cost causation principles.

Industrial customers at retail, for example, will pay the same demand charge as the Member System pays to EKPC. This maintains the rate design relationship from wholesale to retail that has existed for a number of years. Likewise, the proposed increase in the "E" wholesale rate, which is only applied to the energy charge, is being passed through only to the energy charge at retail. This process allows the rate design relationship from wholesale to retail to remain in place.

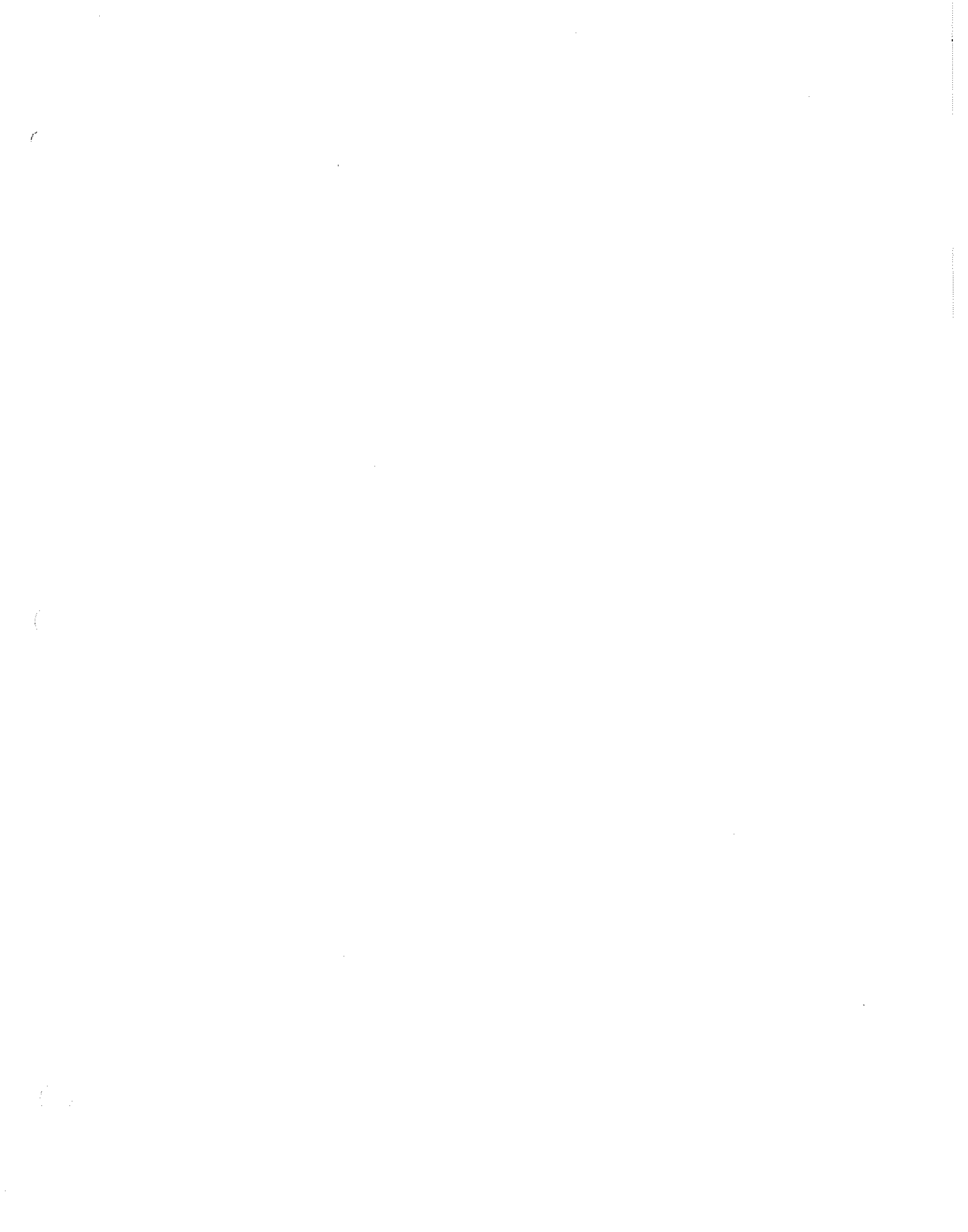
Fundamentally, for every retail rate class, there has been no change in the rate design structure. The demand, energy, and customer components for industrial rates remains intact and the residential and commercial rate design structure remains as is through a continuation of the customer and energy charge structure. This adherence to the rate

design structure, coupled with a retention of the wholesale to retail rate design relationship, is a reasonable approach and meets the legal requirements.

The present and proposed rates structures of Shelby Energy Cooperative, Inc. are listed below:

	<u>Rate Class</u>	<u>EKPC Sch</u>	<u>Present</u>	<u>Proposed</u>
1	General Service	E2		
	Consumer Facility Charge		\$7.18	\$7.18
	Demand Charge – 1 <sup>st</sup> 20 kW per Month		N/C	N/C
	Demand above 20 kW per Month		\$4.50	\$4.50
	Energy First 600 kWh per Month		\$0.06758	\$0.07088
	Energy Next 1400 kWh per Month		\$0.06583	\$0.06913
	Energy All Over 2000 kWh per Month		\$0.06451	\$0.06781
ETS	Off-Peak Retail Marketing Rate	E2		
	Energy – All kWh		\$0.03871	\$0.04069
2	Large Power Service	E2		
	Demand Charge per kW		\$4.50	\$4.50
	Energy Charge First 100 kWh per kW		\$0.05384	\$0.05713
	Energy Charge Next 100 kWh per kW		\$0.04827	\$0.05156
	Energy Charge All Over 200 kWh per kW		\$0.04271	\$0.04600
3	Outdoor and Street Lighting Service	E2		
	A HPS (High Pressure Sodium) – 100 Watt Security Light		\$6.51	\$6.64
	B. HPS (High Pressure Sodium) – 100 Watt Decorative Colonial Light		\$8.90	\$9.03
	C. HPS (High Pressure Sodium) – 400 Watt Directional Flood and Security and Street Light		\$12.39	\$12.90
	D. HPS (High Pressure Sodium) – 250 Watt Directional Flood and Security and Street Light		\$9.26	\$9.58
	E. HPS (High Pressure Sodium) – 150 Watt Decorative Acorn Light		\$10.51	\$10.70
B1	Large Industrial Rate	B		
	Consumer Charge / Mo		\$535.00	\$535.00
	Demand Charge / kW Contract Demand		\$5.39	\$7.29
	Demand Charge in Excess of Contract Demand		\$7.82	\$9.72
	Energy Charge / kWh		\$0.03567	\$0.03567
B2	Large Industrial Rate	B		
	Consumer Charge / Mo		\$1,069.00	\$1,069.00
	Demand Charge per kW Contract Demand		\$5.39	\$7.29
	Demand Charge in Excess of Contract Demand		\$7.82	\$9.72
	Energy Charge / kWh		\$0.03067	\$0.03067
B3	Large Industrial Rate	B		
	Consumer Charge Transformer Size 10,000 – 14,999 kVa		\$2,980.00	\$2,980.00
	Consumer Charge Transformer Size 15,000 kVa and greater		\$4,730.00	\$4,730.00
	Demand Charge per kW Contract Demand		\$5.39	\$7.29
	Demand Charge in Excess of Contract Demand		\$7.82	\$9.72
	Energy Charge / kWh		\$0.02967	\$0.02967
C1	Large Industrial Rate	C		
	Consumer Charge / Mo		\$535.00	\$535.00
	Demand Charge /kW		\$5.39	\$7.29
	Energy Charge / kWh		\$0.03567	\$0.03567
C2	Large Industrial Rate	C		
	Consumer Charge / Mo		\$1,069.00	\$1,069.00
	Demand Charge / kW		\$5.39	\$7.29
	Energy Charge / kWh		\$0.03067	\$0.03067
C3	Large Industrial Rate	C		
	Consumer Charge Transformer Size 10,000 – 14,999 kVa		\$2,980.00	\$2,980.00
	Consumer Charge Transformer Size 15,000 kVa and greater		\$4,730.00	\$4,730.00
	Demand Charge / kW		\$5.39	\$7.29
	Energy Charge / kWh		\$0.02967	\$0.02967

22	Optional T-O-D Demand	E2		
	Consumer Charge / Mo		\$40.00	\$40.00
	Demand Charge / kW		\$4.50	\$4.50
	Energy Charge – First 100 kWh per kW Demand		\$0.05384	\$0.05713
	Energy Charge – Next 100 kWh per kW Demand		\$0.04827	\$0.05156
	Energy Charge – All Over 200 kWh per kW Demand		\$0.04271	\$0.04600
10	Optional Residential, Church & School Service	E2		
	Customer Charge – Single Phase Service		\$11.35	\$11.35
	Customer Charge – Three Phase Service		\$29.50	\$29.50
	Energy Charge /kWh		\$0.05618	\$0.05947
33	Special Outdoor Lighting Service	E2		
	1. Energy Charge /kWh		\$0.04264	\$0.04593
	2. Facilities Charge		1.4027%	1.4027%



**SHELBY ENERGY COOPERATIVE, INC.**

**PSC CASE NO. 2006-00487**

**FIRST DATA REQUEST RESPONSE**

**COMMISSION STAFF'S FIRST DATA REQUEST DATED 3/12/07**

**REQUEST 3**

**RESPONSIBLE PERSON: William A. Bosta**

**COMPANY: Shelby Energy Cooperative, Inc.**

**Request 3.** Refer to Exhibit III of the Application.

**Request 3a.** Prepare the following comparative analyses of Shelby's present and proposed revenues:

(1) Calculate the percentage that each rate schedule or class represents of the total revenues for both the present revenues and proposed revenues. Percentages should be expressed to 2 decimal places.

(2) Calculate the percentage that each component of the base rates within each rate schedule or class represents of the total base rate revenues for both the present revenues and proposed revenues. Do not include fuel adjustment revenues, environmental surcharge revenues, or green power revenues. Percentages should be expressed to 2 decimal places.

**Response 3a.** (1) Please see the attached information.

(2) Please see the attached information.

**Request 3b.** Based upon the results of the analyses prepared in part (a) above, explain in detail how Shelby's proposed pass-through rates are in compliance with the retail rate requirements of KRS 278.455(2) and 807 KAR 5:007, Section 2(2).

**Response 3b.** Maintaining the existing revenue proportion as shown in part (a) above assumes that the proportionality requirement would follow strict adherence to the existing proportion of revenues at retail, by rate mechanism component (i.e. customer, energy and demand). EKPC and the Member Systems believe that the proportionality requirement is not so narrow and that the pass-through at retail has followed the proposed wholesale rate design process in a proportional manner. At retail, for example, there is no increase in the customer charge because EKPC did not increase the metering point charge or substation charge at wholesale. Moreover, the "B" and "C" type retail industrial classes will have the same demand rate as the proposed demand rate for industrial customers at wholesale. It follows the matching concept upon which these rates were originally created.

See also the response to Item 2(b) and 2(c) herein. KRS 278.455(2) explicitly recognizes "proportional" allocation without recognizing a specific method, whether KWh, revenue, or other means of proportionality. EKPC has chosen the proportional method of applying wholesale to retail, with the intended matching concept of costs vs. revenue. The retail rates reflect this top-down approach to proportionality. Please see the attached analysis which illustrates this approach.



Shelby Energy Cooperative  
Billing Analysis  
for the 12 months ended September 30, 2006

	Total \$ Present Rate	% of Total	Total \$ Proposed Rate	% of Total	\$ Increase	% Increase
Schedule 1 General Service	8,819,817	28.01%	9,158,925	27.69%	339,108	3.84%
Schedule ETS Off-Pk Retail Mkt Rate	31,013	0.10%	32,247	0.10%	1,234	3.98%
Schedule 2 Lg Power Service >50 kW	3,105,183	9.86%	3,246,419	9.81%	141,236	4.55%
Schedule 3 - Outdoor & Str Lighting	337,674	1.07%	345,190	1.04%	7,516	2.23%
Schedule 10 - Optional Res, Church & School	9,294,111	29.51%	9,706,538	29.34%	412,428	4.44%
Schedule B-1 Lg Industrial Rate	7,350,653	23.34%	7,865,097	23.78%	514,444	7.00%
Sch B-2 Lg Industrial Rate	2,553,357	8.11%	2,725,305	8.24%	171,948	6.73%
	<u>31,491,807</u>	<u>100.00%</u>	<u>33,079,721</u>	<u>100.00%</u>	<u>1,587,914</u>	<u>5.04%</u>

Shelby Energy Cooperative Billing Analysis  
for the 12 months ended September 30, 2006

Schedule 1  
General Service  
Rate 1; 11, 14; 31

	Existing				Proposed				\$ Increase	% Increase
	Billing Determinants	Current Rate	Annualized Revenues	% of Total	Billing Determinants	Proposed Rate	Annualized Revenues	% of Total		
Customer Charge	102,395	\$7.18	\$735,196	9.90%	102,395	\$7.18	735,196	9.47%	-	0.00%
Energy charge per kWh										
First 600 kWh	58,067,339	\$0.06758	3,924,191	52.83%	58,067,339	\$0.07096	4,120,692	53.06%	196,501	5.01%
Next 1400 kWh	37,548,840	\$0.06583	2,471,840	33.28%	37,548,840	\$0.06921	2,598,906	33.46%	127,066	5.14%
all over 2000 kWh	4,592,366	\$0.06451	296,254	3.99%	4,592,366	\$0.06789	311,794	4.01%	15,541	5.25%
Total from base rates			<u>7,427,481</u>	100.00%			<u>7,766,589</u>	100.00%	<u>339,108</u>	<u>4.57%</u>
Fuel adjustment			788,311				788,311		-	0.00%
Environmental surcharge			<u>604,025</u>				<u>604,025</u>		-	0.00%
Total revenues			<u>\$8,819,817</u>				<u>9,158,925</u>		<u>339,108</u>	<u>3.84%</u>
Average Bill			\$86.14				89.45		3.31	3.84%

Schedule ETS  
Off-Peak Retail Marketing Rate  
Rate 9; 29

	Existing				Proposed				\$ Increase	% Increase
	Billing Determinants	Current Rate	Annualized Revenues	% of Total	Billing Determinants	Proposed Rate	Annualized Revenues	% of Total		
Customer Charge	95		\$0	0.00%	95	\$0.00	-	0.00%		
Sch 9 27 Cust, Sch 29 68 Cust										
Energy charge per kWh	608,765	\$0.03871	23,565	100.00%	608,765	\$0.04074	24,799	100.00%	1,234	5.23%
Total from base rates			<u>23,565</u>	100.00%			<u>24,799</u>	100.00%	<u>1,234</u>	<u>5.23%</u>
Fuel adjustment			5,488				5,488		-	0.00%
Environmental surcharge			<u>1,960</u>				<u>1,960</u>		-	0.00%
Total revenues			<u>\$31,013</u>				<u>32,247</u>		<u>1,234</u>	<u>3.98%</u>
Average Bill			\$326.46				339		12.99	3.98%

Schedule 2  
Large Power Service >50kW  
Rate 2; 5; 21; 32

	Existing				Proposed				\$ Increase	% Increase
	Billing Determinants	Current Rate	Annualized Revenues	% of Total	Billing Determinants	Proposed Rate	Annualized Revenues	% of Total		
Customer Charge	775	\$0.00	\$0	0.00%	775	\$0.00	-	0.00%	-	
Demand Charge	128,622	\$4.50	578,799	22.56%	128,622	\$4.50	578,799	21.39%	-	0.00%
Energy Charge										
First 100 kWh Per KW	12,264,204	\$0.05384	660,305	25.74%	12,264,204	\$0.05722	701,707	25.93%	41,402	6.27%
Next 100 kWh Per KW	11,310,936	\$0.04827	545,979	21.29%	11,310,936	\$0.05165	584,163	21.59%	38,184	6.99%
All over 200 kWh Per KW	18,262,362	\$0.04271	779,985	30.41%	18,262,362	\$0.04609	841,636	31.10%	61,651	7.90%
Total Baseload Charges			<u>\$2,565,068</u>	100.00%			<u>2,706,304</u>	100.00%	<u>141,236</u>	<u>5.51%</u>
Fuel adjustment			328,378				328,378		-	0.00%
Environmental surcharge			<u>211,737</u>				<u>211,737</u>		-	0.00%
Total revenues			<u>\$3,105,183</u>				<u>3,246,419</u>		<u>141,236</u>	<u>4.55%</u>
Average Bill			\$ 4,006.69				4,189		182.24	4.55%

Shelby Energy Cooperative Billing Analysis  
for the 12 months ended September 30, 2006

Schedule 3  
Outdoor & Street Lighting Service

	Existing				Proposed				\$ Increase	% Increase
	Billing Determinants	Current Rate	Annualized Revenues	% of Total	Billing Determinants	Proposed Rate	Annualized Revenues	% of Total		
Customer Charge										
100 Watt HPS Security light	1,659,450	\$0.17	277,001	82.67%	1,659,450	\$0.17030	282,603	82.49%	5,602	2.02%
250 Watt Directional Flood	286,056	\$0.11	30,447	9.09%	286,056	\$0.10981	31,413	9.17%	966	3.17%
100 Watt Decorative Colonial	32,292	\$0.23	7,369	2.20%	32,292	\$0.23158	7,478	2.18%	109	1.48%
400 Watt Directional Flood	240,408	\$0.08	18,734	5.59%	240,408	\$0.08130	19,545	5.71%	812	4.33%
150 Watt Decorative Acorn	8,352	\$0.18	1,513	0.45%	8,352	\$0.18458	1,542	0.45%	28	1.86%
			335,064	100.00%			342,580	100.00%		
	FAC		1,031				1,031			
	ES		1,579				1,579			
			337,674				345,190		7,516	2.23%

Shelby Energy Cooperative Billing Analysis  
for the 12 months ended September 30, 2006

Schedule 10  
Optional Residential, Church and School Service  
Rate 10; 13; 40; 88

	Existing				Proposed				\$ Increase	% Increase
	Billing Determinants	Current Rate	Annualized Revenues	% of Total	Billing Determinants	Proposed Rate	Annualized Revenues	% of Total		
Customer Charge										
Single Phase	73,368	\$11.35	\$832,727	10.81%	73,368	\$11.35	832,727	10.26%	-	0.00%
Three-Phase Service	144	\$29.50	\$4,248	0.06%	144	\$29.50	4,248	0.05%	-	0.00%
Charge per kWh	122,170,911	\$0.05618	6,863,562	89.13%	122,170,911	\$0.05956	7,275,989	89.68%	412,428	6.01%
Total from base rates			7,700,537	100.00%			8,112,964	100.00%	412,428	5.36%
Fuel adjustment			960,538				960,538		-	0.00%
Environmental surcharge			633,036				633,036		-	0.00%
Total revenues			\$9,294,111				9,706,538		412,428	4.44%
Average Bill		\$	126.43				132		5.61	4.44%

Schedule B-1  
Large Industrial Rate  
Rate 8; 38

	Existing				Proposed				\$ Increase	% Increase
	Billing Determinants	Current Rate	Annualized Revenues	% of Total	Billing Determinants	Proposed Rate	Annualized Revenues	% of Total		
Customer Charge	131	\$535.00	\$70,085	1.18%	131	\$535.00	70,085	1.09%	-	0.00%
Demand Charge	246,975	\$5.39	1,331,195	22.49%	246,975	\$7.29	1,800,448	27.98%	469,253	35.25%
Excess Demand	23,785	\$7.82	185,999	3.14%	23,785	\$9.72	231,190	3.59%	45,192	24.30%
Energy Charge										
First 100 kW	121,456,449	\$0.03567	4,332,352	73.19%	121,456,449	\$0.03567	4,332,352	67.33%	-	0.00%
Total Baseload Charges			\$5,919,630	100.00%			6,434,074	100.00%	514,444	8.69%
Fuel adjustment			938,402				938,402		-	0.00%
Environmental surcharge			492,621				492,621		-	0.00%
Total Revenues			\$7,350,653				7,865,097		514,444	7.00%
Average Bill		\$	56,111.86				60,039		3,927.05	7.00%



Shelby Energy Cooperative Billing Analysis  
for the 12 months ended September 30, 2006

Rate 3, Outdoor & Street Lighting	Existing				Proposed				\$ Increase	% Increase
	Billing Determinants	Current Rate	Annualized Revenues	% of Total	Billing Determinants	Proposed Rate	Annualized Revenues	% of Total		
100 Watt HPS Security light	42,550	\$6.51	277,001	82.67%	42,550	6.64	282,603	82.49%	0.13	2.02%
250 Watt Directional Flood	3,288	\$9.26	30,447	9.09%	3,288	9.55	31,413	9.17%	0.29	3.17%
100 Watt Decorative Colonial	828	\$8.90	7,369	2.20%	828	9.03	7,478	2.18%	0.13	1.48%
400 Watt Directional Flood	1,512	\$12.39	18,734	5.59%	1,512	12.93	19,545	5.71%	0.54	4.33%
150 Watt Decorative Acorn	144	\$10.51	1,513	0.45%	144	10.71	1,542	0.45%	0.20	1.86%
<b>Total Base Rates</b>	<b>48,322</b>		<b>335,064</b>	<b>100.00%</b>	<b>48,322</b>		<b>342,580</b>	<b>100.00%</b>	<b>\$7,516</b>	<b>2.24%</b>
FAC			1,031				1,031			
ES			1,579				1,579			
<b>Total</b>			<b>337,674</b>				<b>345,190</b>		<b>7,516</b>	<b>2.23%</b>
Average Bill			6.99				7.14		0.16	2.23%

