

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

In the Matter of:

Electronic Application Of Kentucky Power)	
Company For (1) A General Adjustment Of Its)	
Rates For Electric Service; (2) An Order)	
Approving Its 2017 Environmental Compliance)	
Plan; (3) An Order Approving Its Tariffs And)	Case No. 2017-00179
Riders; (4) An Order Approving Accounting)	
Practices To Establish Regulatory Assets Or)	
Liabilities; And (5) An Order Granting All Other)	
Required Approvals And Relief)	

TESTIMONY OF

ALEX E. VAUGHAN

ON BEHALF OF KENTUCKY POWER COMPANY

IN SUPPORT OF THE SETTLEMENT AGREEMENT

**SETTLEMENT TESTIMONY OF
ALEX E. VAUGHAN, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY**

CASE NO. 2017-00179

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**SETTLEMENT TESTIMONY OF
ALEX E. VAUGHAN, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY**

I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND POSITION WITH KENTUCKY POWER**
2 **COMPANY.**

3 A. My name is Alex E. Vaughan. I am Manager of Regulated Pricing and Analysis for
4 American Electric Power Service Corporation with direct responsibility for Kentucky
5 Power Company cost of service and rate design matters.

6 **Q. DID YOU FILE TESTIMONY IN THIS RATE PROCEEDING?**

7 A. Yes. I filed both direct testimony and rebuttal testimony.

8 **Q ARE YOU FAMILIAR WITH THE ISSUES PRESENTED IN THIS CASE BY**
9 **THE COMPANY AND THE PARTIES GRANTED INTERVENTION?**

10 A. Yes.

11 **Q. DID YOU PARTICIPATE IN THE NEGOTIATIONS WHICH LED TO THE**
12 **SETTLEMENT AGREEMENT BEING SUBMITTED FOR CONSIDERATION**
13 **AND APPROVAL BY THE COMMISSION?**

14 A. Yes. I participated in an initial informal meeting on October 24, 2017 at the Company's
15 office in Frankfort with the parties to the case, and the informal conferences on October
16 26, 2017 and November 7, 2017 at the Commission's offices that led to the agreement in
17 principle.

1 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

2 A. In my testimony, I support the calculations included in the Settlement Agreement and the
3 exhibits supporting the terms of the Settlement Agreement. I also describe the impact of
4 the agreement on individual tariff classes. Finally, I sponsor the proof of revenue
5 calculations and the particular tariffs that reflect and implement the agreement.

6 II. RATE IMPACT OF THE SETTLEMENT AGREEMENT

7 Q. DID KENTUCKY POWER CALCULATE THE RELATIVE RATE IMPACT OF
8 THE SETTLEMENT AGREEMENT ON INDIVIDUAL TARIFF CLASSES?

9 A. Yes. Exhibit 1 to the Settlement Agreement shows the revenue allocation and relative
10 rate impact on the various tariff classes resulting from the \$31.78 million increase in base
11 rates under Paragraph 1 of the Agreement. A copy of Exhibit 1 to the Settlement
12 Agreement is included as **EXHIBIT AEV-1S**. **EXHIBIT AEV-1S** also shows the rate
13 impacts resulting from the \$36 million total increase that includes the Company's
14 proposed environmental compliance plan and the incremental changes in HEAP and
15 KEDS funding. Furthermore, **EXHIBIT AEV-1S** illustrates the savings that the customer
16 classes will realize from the Company's June financing activities in the environmental
17 surcharge that is not reflected in the calculation of the Company's base rate revenue
18 increase. These items in total amount to an average increase from test year electric sales
19 revenue of 6.16%.

20 Q. HAS THE COMPANY DESIGNED RATES AND TARIFFS CONSISTENT WITH
21 THE SETTLEMENT AGREEMENT?

22 A. Yes. Attached to this testimony as **EXHIBIT AEV-2S** is a summary of base rates
23 designed in accordance with the terms of the Settlement Agreement. These rates have

1 been designed to produce \$31.78 million of additional base revenues. The Company will
2 submit separately tariffs that reflect these rates and the modifications to certain tariff
3 terms included in the Company's proposals as amended by the Settlement Agreement.

4 **Q. HAS THE COMPANY PERFORMED AN ANALYSIS DEMONSTRATING**
5 **THAT IF THE PROPOSED RATES HAD BEEN IN EFFECT DURING THE**
6 **TEST YEAR ENDING FEBRUARY 28, 2017 THE TOTAL INCREMENTAL**
7 **REVENUES WOULD HAVE BEEN THE AGREED UPON \$36 MILLION?**

8 A. Yes. Attached as EXHIBIT AEV-3S is the proof of revenues. The Company used the
9 February 28, 2017 billing determinants and applied the proposed rates and the
10 incremental revenues generated that resulted in approximately a \$31.78 million base rate
11 increase, \$3.9 million environmental compliance plan increase, and \$327 thousand
12 HEAP/KEDS Increase.

13 **Q. HAS THE COMPANY PREPARED UPDATED FORMS FOR TARIFF PPA?**

14 A. Yes. Attached to this testimony collectively as EXHIBIT AEV-4S are forms designed in
15 accordance with the terms of the Settlement Agreement.

16 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

17 A. Yes.

EXHIBIT AEV-1S

Kentucky Power Company
 Exhibit AEV-1S/Settlement Agreement Exhibit-1
 Case No. 2017-00179
 Settlement Revenue Allocation

Customer Class	Base Rate Case Settlement Increase							Increase Incorporating Surcharge Changes			Return on Rate Base		Settlement	
	Settlement Base	ECP	HEAP KEDS	Total Increase	Test Year Rev	% Increase	Carrying Charge Savings in ES	Net Increase	Total Bill % Increase	Current ROR	Proposed ROR	Proposed Fuel Base Revenue Increase	Non-	
	Rate Increase													
	a	b	c	d = a+b+c	e	= d/e	f	g = d+f	= g/e					
RS	\$ 20,076,436	\$ 1,734,600	594	21,811,630	\$232,952,481	9.36%	(\$835,019)	\$20,976,611	9.00%	1.90%	3.77%	14.15%		
SGS	\$ 984,981	\$ 184,183	247,506	1,416,670	\$21,371,729	6.63%	(\$88,664)	\$1,328,006	6.21%	11.30%	12.90%	7.19%		
MGS	\$ 3,421,623	\$ 500,403	69,324	3,991,350	\$60,245,787	6.63%	(\$240,889)	\$3,750,461	6.23%	9.14%	10.96%	9.24%		
GS*	\$ 4,406,604	\$ 684,586	\$ 316,830	\$ 5,408,020	\$ 81,617,516	6.63%	(\$329,553)	\$5,078,467	6.22%	9.67%	11.43%	8.68%		
LGS/PS	\$ 3,520,149	\$ 549,861	8,467	4,078,477	\$70,567,216	5.78%	(\$264,698)	\$3,813,779	5.40%	8.78%	10.46%	8.61%		
IGS	\$ 3,534,466	\$ 836,950	694	4,372,110	\$157,911,866	2.77%	(\$402,899)	\$3,969,211	2.51%	6.82%	7.71%	5.85%		
MW	\$ 4,956	\$ 1,620	102	6,678	\$221,405	3.02%	(\$780)	\$5,898	2.66%	12.12%	13.02%	3.94%		
OL	\$ 201,254	\$ 82,080	0	283,334	\$8,984,564	3.15%	(\$39,512)	\$243,822	2.71%	15.03%	15.68%	2.87%		
SL	\$ 36,869	\$ 13,751	0	50,620	\$1,645,931	3.08%	(\$6,620)	\$44,000	2.67%	15.92%	16.84%	3.29%		
Total	\$ 31,780,734	\$ 3,903,448	\$ 326,687	\$ 36,010,869	\$ 553,900,979	6.50%	(\$1,879,080)	\$34,131,789	6.16%	4.85%	6.48%	9.47%		

* GS is the combination of the SGS and MGS classes

EXHIBIT AEV-2S

Exhibit AEV-2S

Settlement Base Rate Summary Table

	Service Charge	kWh	kW Demand	Reactive Demand	Lamp Charge*
RS Total	\$14.00	\$ 0.10265			
Storage Water Heating		\$ 0.06347			
RSLMTOD Total					
on peak		\$ 0.15299			
off peak		\$ 0.06347			
Sep Meter Charge	\$3.75				
RS TOD Total	\$16.00				
on peak		\$ 0.15299			
off peak		\$ 0.06347			
SGS Metered Total	\$22.50				
First 4,450 kWh		\$ 0.09865			
Over 4,450 kWh		\$ 0.09897			
SGS NM Total	\$13.50				
SGSLMTOD (225)	\$22.50				
on peak		\$ 0.16348			
off peak		\$ 0.06347			
SGS TOD	\$22.50				
On-Peak - Summer		\$ 0.19541			
On-Peak - Winter		\$ 0.15991			
Off-Peak		\$ 0.08088			
MGS Sec	\$22.50		\$7.97		
First 4,450 kWh		\$ 0.09865			
Over 4,450 kWh		\$ 0.09897			
MGS RL (214)	\$22.50	\$ 0.10580			
MGSLMTOD (223)	Same as SGS LMTOD				
MGSTOD (229)	\$22.50				
on peak		\$ 0.17255			
off peak		\$ 0.06347			
MGS Pri Total	\$75.00		\$7.18		
First 4,450 kWh		\$ 0.08804			
Over 4,450 kWh		\$ 0.08834			
MGS Sub (236)	\$364.00		\$5.74		
First 4,450 kWh		\$ 0.07154			
Over 4,450 kWh		\$ 0.07184			
LGS Sec Total	\$85.00	\$ 0.08134	\$7.97	\$3.46	
LGSLMTOD (251)	\$85.00				
on peak		\$ 0.14672			
off peak		\$ 0.06351			
LGSSECTOD (256)	\$85.00		\$10.87	\$3.46	
on peak		\$ 0.10224			
off peak		\$ 0.04369			
LGS Pri Total	\$127.50	\$ 0.07152	\$7.18	\$3.46	
LGS Sub (248)	\$660.00	\$ 0.05535	\$5.74	\$3.46	
LGS Tran (250)	\$660.00	\$ 0.05429	\$5.60	\$3.46	
PS Sec (260)	\$85.00	\$ 0.07671	\$7.97	\$3.46	
PS Pri (264)	\$127.50	\$ 0.06709	\$7.18	\$3.46	
IGS Sec (356)	\$276.00	\$ 0.03005		\$0.69	
on peak			\$24.13		
off peak			\$1.60		

Minimum			\$25.83	
IGS Pri (358)	\$276.00	\$ 0.02891		\$0.69
on peak			\$20.57	
off peak			\$1.55	
Minimum			\$22.21	
IGS Sub Total (359,371)	\$794.00	\$ 0.02852		\$0.69
on peak			\$13.69	
off peak			\$1.51	
Minimum			\$15.30	
IGS Tran Total (360,372)	\$1,353.00	\$ 0.02813		\$0.69
on peak			\$13.26	
off peak			\$1.49	
Minimum			\$14.86	
MW	\$22.90	\$ 0.09291	\$8.89	

OL Total

Overhead Lighting Service

High Pressure Sodium

100 watts, 9,500 Lumens (094)	\$9.75
150 watts, 16,000 Lumens (113)	\$11.05
200 watts, 22,000 Lumens (097)	\$13.40
250 watts, 28,000 Lumens (103)	\$18.20
400 watts, 50,000 Lumens (098)	\$20.85

Mercury Vapor

175 watts, 7,000 Lumens (093)	\$11.15
400 watts, 20,000 Lumens (095)	\$19.25

Post Top Lighting Service

High Pressure Sodium - PT - UG Circuit

100 watts, 9,500 Lumens (111)	\$15.45
150 watts, 16,000 Lumens (122)	\$25.40

Mercury Vapor - PT - UG Circuit

175 watts, 7,000 Lumens (099)	\$12.80
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High Pressure Sodium - Shoebox with Decorative Pole

100 watts, 9,500 Lumens (121)	\$31.25
250 watts, 28,000 Lumens (120)	\$28.35
400 watts, 50,000 Lumens (126)	\$41.55

Flood Lighting Service

High Pressure Sodium - Floodlight, existing pole

200 watts, 22,000 Lumens (107)	\$15.70
400 watts, 50,000 Lumens (109)	\$22.00

Metal Halide - Floodlight, existing pole

250 watts, 20,500 Lumens (110)	\$18.15
400 watts, 36,000 Lumens (116)	\$22.80
1000 watts, 110,000 Lumens (131)	\$41.70

Metal Halide - Mongoose Light, existing pole

250 watts, 20,500 Lumens (130)	\$23.80
400 watts, 36,000 Lumens (136)	\$28.50

Metered kWh

Facilities Charge	
Pole	\$3.40
Span	\$2.00
Lateral	\$7.40

SL (528)

OH Service on Distribution Poles

High Pressure Sodium

100 watts, 9,500 Lumens	\$8.25
150 watts, 16,000 Lumens	\$9.30
200 watts, 22,000 Lumens	\$11.40
400 watts, 50,000 Lumens	\$16.55

Service on New Wood Distribution Poles

High Pressure Sodium

100 watts, 9,500 Lumens	\$12.05
150 watts, 16,000 Lumens	\$13.35
200 watts, 22,000 Lumens	\$15.45
400 watts, 50,000 Lumens	\$21.50

Service on New Metal or Concrete Poles

High Pressure Sodium

100 watts, 9,500 Lumens	\$29.05
150 watts, 16,000 Lumens	\$30.30
200 watts, 22,000 Lumens	\$29.45
400 watts, 50,000 Lumens	\$32.20

*Total base lamp rate includes base fuel

EXHIBIT AEV-3S

Exhibit AEV-3S

KENTUCKY POWER BILLING ANALYSIS
 TEST YEAR ENDED FEBRUARY 28, 2017
 SETTLEMENT PROFORMA SUMMARY

Tariff	Test Year Total Revenue	Total Adjusted Current Base Revenue	Proposed Base Revenue	Base COS Rev Increase	Proforma Total HEAP and Economic Development	Current HEAP and Econ Developm	Base COS Rev % Difference	Incremental HEAP	Incremental KEDS	Incremental Environmental Surcharge (ECP)	Total Increase	Number of Customers
RS Total	\$232,588,244	\$215,414,932	\$235,471,980	\$20,057,048	\$490,008	\$489,399	8.62%	\$81,567	(\$80,958)	1,731,961	21,789,618	136,352
RSLMTOD Total	\$356,909	\$322,143	\$350,563	\$28,420	\$570	\$584	7.96%	\$97	(\$112)	2,577	30,983	162
RSTOD Total	\$7,328	\$7,713	\$8,443	\$730	\$18	\$18	9.96%	\$3	(\$3)	62	792	5
OL Total	\$8,984,564	\$8,231,795	\$8,433,544	\$201,749			2.25%			82,080	283,829	
SGS Metered Total	\$20,460,345	\$17,886,757	\$18,889,355	\$1,002,598	\$271,005	\$40,651	4.90%		\$230,354	176,667	1,409,618	22,575
SGSLMTOD (225)	\$40,602	\$35,500	\$40,084	\$4,584	\$384	\$58	11.29%		\$326	362	5,272	32
SGSTOD (227)	\$123,507	\$112,312	\$125,631	\$13,219	\$2,170	\$326	10.70%		\$1,845	1,223	16,287	181
SGS NM Total	\$757,275	\$645,228	\$610,745	(\$34,484)	\$17,570	\$2,590	-4.56%		\$14,980	5,931	(13,572)	1,099
MGS AF (214)	\$191,031	\$155,583	\$169,537	\$13,953	\$986	\$148	7.30%		\$838	1,494	16,286	82
MGS Sec Total	\$57,985,685	\$51,288,014	\$54,627,745	\$3,339,731	\$78,086	\$11,713	5.76%		\$66,373	479,999	3,886,104	6,504
MGSLMTOD (223)	\$95,052	\$84,798	\$96,134	\$11,336	\$553	\$83	11.93%		\$470	836	12,642	46
MGSTOD (229)	\$411,941	\$376,617	\$398,112	\$21,496	\$925	\$139	5.22%		\$786	3,374	25,655	77
MGS Pri Total	\$1,379,476	\$1,562,311	\$1,605,000	\$42,689	\$936	\$140	3.09%		\$796	13,497	56,982	78
MGS Sub (236)	\$182,703	\$160,047	\$144,789	(\$15,258)	\$72	\$11	-8.35%		\$81	1,202	(13,995)	6
SCHOOL Sec	\$12,936,551	\$11,340,033	\$12,120,188	\$780,155	\$1,932	\$290	6.03%		\$1,642	102,227	884,024	181
SCHOOL Pri	\$186,673	\$164,445	\$175,319	\$10,874	\$12	\$2	5.83%		\$10	1,390	12,274	1
LGS Sec Total	\$46,350,023	\$40,615,945	\$42,559,837	\$1,943,892	\$6,951	\$1,043	4.19%		\$5,908	354,088	2,303,888	579
LGS Sec TOD (256)	\$160,709	\$279,903	\$297,986	\$18,083	\$32	\$5	11.25%		\$27	2,418	20,528	3
LGSLMTOD (251)	\$219,779	\$192,636	\$204,702	\$12,066	\$96	\$14	5.49%		\$82	1,702	13,849	8
LGS Pri Total	\$7,908,538	\$7,429,413	\$7,945,541	\$516,128	\$710	\$107	6.53%		\$604	65,003	581,734	59
LGS Sub (248)	\$2,734,354	\$2,720,571	\$2,955,321	\$234,750	\$204	\$31	8.59%		\$173	21,899	256,822	17
LGS Tran (250)	\$70,589	\$136,725	\$147,974	\$11,249	\$24	\$4	15.94%		\$20	1,133	12,402	2
IGS Sec	\$1,390,047	\$1,237,544	\$1,325,827	\$88,283	\$48	\$7	6.35%		\$41	10,023	98,347	4
IGS Pri	\$24,959,531	\$21,072,648	\$22,664,129	\$1,591,480	\$420	\$63	6.38%		\$357	165,376	1,757,213	35
IGS Sub	\$111,706,963	\$99,478,225	\$101,222,753	\$1,744,529	\$312	\$47	1.56%		\$265	569,736	2,314,530	26
IGS Tran	\$19,855,324	\$16,981,225	\$17,091,643	\$110,418	\$36	\$5	0.56%		\$31	91,815	202,264	3
SL (528)	\$1,645,931	\$1,407,108	\$1,443,668	\$36,760			2.23%			13,751	50,512	0
MW (540)	\$221,405	\$194,342	\$199,303	\$4,961	\$120	\$18	2.24%		\$102	1,620	6,683	10
Total	\$553,900,980	\$499,534,514	\$531,326,950	\$31,791,437	\$874,180	\$547,493	5.74%	\$81,667	\$245,020	\$3,903,449	\$36,021,572	168,107

Base Rate COS Increase 31,780,734
 Rate Design Revenue Increase 31,791,437
 Difference 10,703 rate design rounding difference - proof on Reconciliation tab

This sheet contains data from the rate design process.

It is set up to identify revenue differences between Class Cost of Service Study and the application of new rates to the test year billing determinants

Tariff Sheet	Calculated Base Revs	Rate Design Difference	Subtotal	CCOS Revenue	Variance
RS	\$235,471,980				
RS LM TOD	\$350,563				
RS TOD	\$8,443				
Total Residential	\$235,830,986	-\$9,764	\$235,821,222	\$235,821,221	\$1
OL Total	\$8,433,544	-\$498	\$8,433,046	\$8,433,046	\$0
SGS Metered	\$18,889,355				
SGS LM TOD	\$40,084				
SGS EXP TOD	\$125,531				
SGS NM	\$610,745				
MGS RL	\$169,537				
MGS SEC	\$54,627,745				
MGS LM TOD	\$96,134				
MGS TOD	\$398,112				
MGS PRI	\$1,605,000				
MGS SUB	\$144,789				
GS Total	\$76,707,031	\$6,730	\$76,713,761	\$76,713,763	-\$2
SCHOOL SEC	\$12,120,188				
SCHOOL PRI	\$175,319				
LGS SEC	\$42,559,837				
LGS LM TOD	\$204,702				
LGS TOD	\$297,986				
LGS PRI	\$7,945,541				
LGS SUB	\$2,955,321				
LGS TRAN	\$147,974				
LGS	\$66,406,867	-\$7,049	\$66,399,818	\$66,399,816	\$2
IGS Sec	\$1,325,827				
IGS Pri	\$22,664,129				
IGS Sub	\$101,222,753				
IGS Tran	\$17,091,643				
IGS Total	\$142,304,352	-\$255	\$142,304,097	\$142,304,103	-\$6
SL	\$1,443,868	\$108	\$1,443,976	\$1,443,976	\$0
MW	\$199,303	-\$4	\$199,299	\$199,299	\$0
Total	\$531,325,950	-\$10,732	\$531,315,218	\$531,315,224	-\$6

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

RESIDENTIAL SERVICE (011, 012, 013, 014, 015, 017, 022, 054)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
<u>Billing kWh</u>						
All kWh	2,038,701,434	\$0.08795	\$179,303,791	2,038,701,434	\$0.10265	\$209,272,702
Storage Water Heating	254,765	\$0.05094	\$12,978	254,765	\$0.06347	\$16,170
Metered kWh	2,038,956,199			2,038,956,199		
Customer Charge	1,631,330	\$11.00	\$17,944,631	1,637,416	\$14.00	\$22,923,824
Number of Customers	1,636,224			1,636,224		
Employee Cust Charge	6,086		\$48,688			
Employee Discount			(\$44,073)			
Fuel		\$0.0015985	\$3,259,284		\$0.0015985	\$3,259,284
Green Power Rider			\$60			
Purchase Power Adjustment			\$199,311			
Big Sandy 1 Operations Rider		\$0.00580	\$9,878,889			\$0
Big Sandy Retirement Rider		3.7089%				\$0
Environmental Surcharge			\$4,811,373			\$0
Sub Total			\$215,414,932			\$235,471,980
HEAP Charge	1,631,330	\$0.15	\$244,700	1,631,330	\$0.20	\$326,266
Economic Development Rider		\$0.15	\$244,700	1,637,416	\$0.10	\$163,742
Incremental Environmental Surcharge (ECP)				\$235,961,988	0.7340%	\$1,731,961
Total Revenue			\$215,904,331			\$237,693,949

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

RESIDENTIAL LOAD MANAGEMENT TIME-OF-DAY SERVICE (028, 030, 032, 034)

	<u>Current Billing Units</u>	<u>Current Rate</u>	<u>Current Revenue</u>	<u>Proposed Billing Units</u>	<u>Proposed Rate</u>	<u>Proposed Revenue</u>
<u>Billing kWh</u>						
On-peak kWh	1,151,984	\$0.13394	\$154,297	1,151,984	\$0.15299	\$176,242
Off-peak kWh	2,226,851	\$0.05094	\$113,436	2,226,851	\$0.06347	\$141,338
Metered kWh	3,378,835			3,378,835		
C&LM Credit	0	(\$0.00745)	\$0	-	(\$0.00745)	\$0
Customer Charge	1,699	\$13.60	\$23,105	1,699	\$16.00	\$27,184
Separate Meter Charge	106	\$3.75	\$398	106	\$3.75	\$398
Number of Customers	1,968			1,968		
Employee Customer Charge	142		\$1,931			
Employee Discount			(\$398)			
Fuel		\$0.0015985	\$5,401		\$0.0015985	\$5,401
Purchase Power Adjustment			\$305			
Big Sandy 1 Operations Rider		\$0.00580	\$16,442			\$0
Big Sandy Retirement Rider		3.7089%	\$0			\$0
Environmental Surcharge			\$7,226			\$0
Sub Total			\$322,143			\$350,563
HEAP Charge	1,947	\$0.15	\$292	1,947	\$0.20	\$389
Economic Development Rider		\$0.15	\$292	1,805	\$0.10	\$181
Incremental Environmental Surcharge (new ECP)				\$351,133	0.7340%	\$2,577
Total Revenue			\$322,727			\$353,710

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

RESIDENTIAL TIME-OF-DAY SERVICE (036)

	<u>Current Billing Units</u>	<u>Current Rate</u>	<u>Current Revenue</u>	<u>Proposed Billing Units</u>	<u>Proposed Rate</u>	<u>Proposed Revenue</u>
<u>Billing kWh</u>						
On-peak kWh	26,598	\$0.13394	\$3,563	26,598	\$0.15299	\$4,069
Off-peak kWh	51,806	\$0.05094	\$2,639	51,806	\$0.06347	\$3,288
Metered kWh	78,404			78,404		
Customer Charge	60	\$13.60	\$816	60	\$16.00	\$960
Number of Customers	60			60		
Employee Discount			\$0			\$0
Fuel		\$0.0015985	\$125		\$0.0015985	\$125
<u>Purchased Power Adjustment</u>			\$7			
Big Sandy 1 Operations Rider		\$0.00580	\$392			\$0
Big Sandy Retirement Rider		3.7089%	\$0			\$0
Environmental Surcharge			\$171			\$0
Sub Total			\$7,713			\$8,443
HEAP Charge	60	\$0.15	\$9	60	\$0.20	\$12
Economic Development Rider		\$0.15	\$9	60	\$0.10	\$6
Incremental Environmental Surcharge (new ECP)				\$8,461	0.7340%	\$62
Total Revenue			\$7,731			\$8,523

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SMALL GENERAL SERVICE (211, 212)

	<u>Current Billing Units</u>	<u>Current Rate</u>	<u>Current Revenue</u>	<u>Proposed Billing Units</u>	<u>Proposed Rate</u>	<u>Proposed Revenue</u>
<u>Billing kWh</u>						
First 500 kWh	59,293,307	\$0.11711	\$6,943,839			
Over 500 kWh	68,301,984	\$0.07267	\$4,963,505			
First 4,450 kWh				126,017,034	\$0.09865	\$12,431,580
Over 4,450 kWh				1,578,257	\$0.09897	\$156,200
Metered kWh	127,595,291			127,595,291		
Customer Charge	271,005	\$17.50	\$4,742,588	271,005	\$22.50	\$6,097,613
Number of Customers	270,900			270,900		
Fuel		\$0.0015985	\$203,962		\$0.0015985	\$203,962
Purchase Power Adjustment			\$ 15,682			\$0
Big Sandy 1 Operations Rider			\$ 480,885			\$0
Environmental Surcharge			\$ 432,961			\$0
Sub Total			\$17,783,421			\$18,889,355
Economic Development Rider		\$0.15	\$40,651	271,005	\$1.00	\$271,005
Incremental Environmental Surcharge (new ECP)			\$	15,479,426	1.1413%	\$176,667
Total Revenue			\$17,824,072			\$19,337,027
Embedded (Base) Fuel					\$0.0272500	\$3,476,972

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SMALL GENERAL SERVICE - NON METERED (204, 213)

	<u>Current Billing Units</u>	<u>Current Rate</u>	<u>Current Revenue</u>	<u>Proposed Billing Units</u>	<u>Proposed Rate</u>	<u>Proposed Revenue</u>
<u>Billing kWh</u>						
First 500 kWh	2,283,242	\$0.11711	\$267,390			
Over 500 kWh	1,481,654	\$0.07267	\$107,672			
First 4,450 kWh				2,965,981	\$0.09865	\$292,594
Over 4,450 kWh				798,915	\$0.09897	\$79,069
Metered kWh	3,764,896			3,764,896		
Customer Charge	17,264	\$13.50	\$233,064	17,264	\$13.50	\$233,064
Number of Customers	13,188			13,188		
Fuel		\$0.00160	\$6,018		\$0.0015985	\$6,018
Purchase Power Adjustment			\$581			\$0
Big Sandy 1 Operations Rider		\$0.00446	\$14,192			\$0
Enviromental Surcharge		5.4339%	\$16,311			\$0
Sub Total			\$645,228			\$610,745
Economic Development Rider		\$0.15	\$2,590	17,570	\$1.00	\$17,570
Incremental Environmental Surcharge (new ECR)				\$519,703	1.1413%	\$5,931
Total Revenue			\$647,818			\$634,246
Embedded (Base) Fuel					\$0.0272500	\$102,593

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SMALL GENERAL SERVICE LOAD MANAGEMENT TIME-OF-DAY (225)

	<u>Current Billing Units</u>	<u>Current Rate</u>	<u>Current Revenue</u>	<u>Proposed Billing Units</u>	<u>Proposed Rate</u>	<u>Proposed Revenue</u>
<u>Billing kWh</u>						
On-Peak	116,365	\$0.14360	\$16,710	116,365	\$0.16348	\$19,023
Off-Peak	188,025	\$0.05100	\$9,589	188,025	\$0.06347	\$11,934
Metered kWh	304,390			304,390		
Customer Charge	384	\$17.50	\$6,720	384	\$22.50	\$8,640
Number of Customers	384			384		
Fuel		\$0.0015985	\$487		\$0.0015985	\$487
Purchase Power Adjustment			\$31			\$0
Big Sandy 1 Operations Rider		0.00446	\$1,133			\$0
Environmental Surcharge		5.4339%	\$830			\$0
Sub Total			\$35,500			\$40,084
Economic Development Rider		\$0.15	\$58	384	\$1.00	\$384
Incremental Environmental Surcharge (new ECP)				\$31,687	1.1413%	\$362
Total Revenue			\$35,557			\$40,830
Embedded (Base) Fuel					\$0.0272500	\$8,295

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MEDIUM GENERAL SERVICE LOAD MANAGEMENT TIME-OF-DAY (223)

	<u>Current Billing Units</u>	<u>Current Rate</u>	<u>Current Revenue</u>	<u>Proposed Billing Units</u>	<u>Proposed Rate</u>	<u>Proposed Revenue</u>
<u>Billing kWh</u>						
On-peak kWh	307,805	\$0.15955	\$49,110	307,805	\$0.16348	\$50,320
Off-peak kWh	505,299	\$0.05341	\$26,988	505,299	\$0.06347	\$32,071
Metered kWh	813,104			813,104		
Customer Charge	553	\$3.75	\$2,074	553	\$22.50	\$12,443
Number of Customers	552			552		
Fuel		\$0.0015985	\$1,300		\$0.0015985	\$1,300
Purchase Power Adjustment			\$84			\$0
Big Sandy 1 Operations Rider		\$0.00471	\$3,279			\$0
Environmental Surcharge		5.4339%	\$1,963			\$0
Sub Total			\$84,798			\$96,134
Economic Development Rider		\$0.15	\$83	553	\$1.00	\$553
Incremental Environmental Surcharge (new ECP)				\$73,230	1.1413%	\$836
Total Revenue			\$84,881			\$97,522
Embedded (Base) Fuel					\$0.0272500	\$22,157

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SMALL GENERAL SERVICE TIME-OF-DAY (227)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
<u>Billing kWh</u>						
On-Peak - Summer	92,802	\$0.11395	\$10,575	92,802	\$0.19541	\$18,134
On-Peak - Winter	93,947	\$0.12315	\$11,570	93,947	\$0.15991	\$15,023
Off-Peak	524,380	\$0.08667	\$45,448	524,380	\$0.08088	\$42,412
Metered kWh	711,130			711,130		
Customer Charge	2,170	\$17.50	\$37,975	2,170	\$22.50	\$48,825
Number of Customers	2,172			2,172		
Fuel		\$0.0015985	\$1,137		\$0.0015985	\$1,137
Purchase Power Adjustment			\$94			\$0
Big Sandy 1 Operations Rider		\$0.00446	\$2,672			\$0
Environmental Surcharge		5.4339%	\$2,842			\$0
Sub Total			\$112,312			\$125,531
Economic Development Rider		\$0.15	\$326	2,170	\$1.00	\$2,170
Incremental Environmental Surcharge (new ECP)				\$107,186	1.1413%	\$1,223
Total Revenue			\$112,638			\$128,924
Embedded (Base) Fuel					\$0.0272500	\$19,378

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MEDIUM GENERAL SERVICE - SECONDARY (215, 216, 218)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
<u>Billing kWh</u>						
First 200 kWh per kW	287,409,659	\$0.10198	\$29,310,037			
Over 200 kWh per kW	151,039,043	\$0.08736	\$13,194,771			
Minimum kWh	0					
Metered kWh	438,448,702			438,448,702		
First 4,450 kWh				230,471,543	\$0.09865	\$22,736,018
Over 4,450 kWh				207,977,159	\$0.09897	\$20,583,499
Billing kW						
Standard	1,854,278	\$1.91	\$3,541,671			
Mining Minimum	0	\$7.95	\$0			
First 10 kW				743,810		
Billing kW greater than 10 kW				1,110,468	\$7.97	\$8,850,430
Customer Charge	78,086	\$17.50	\$1,366,505	78,086	\$22.50	\$1,756,935
Number of Customers	78,048			78,048		
Fuel		\$0.0015985	\$700,863		\$0.0015985	\$700,863
Purchase Power Adjustment			\$44,180			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00142	\$620,780			\$0
Big Sandy 1 Operations Rider - Demand		\$0.72	\$1,032,559			\$0
Environmental Surcharge		5.4339%	\$1,191,595			\$0
Sub Total			\$51,002,961			\$54,627,745
Economic Development Rider		0.15	\$11,713	78,086	\$1.00	\$78,086
Incremental Environmental Surcharge (new ECR)				\$42,057,241	1.1413%	\$479,999
Total Revenue			\$51,014,674			\$55,185,830
Embedded (Base) Fuel					\$0.0272500	\$11,947,727

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MEDIUM GENERAL SERVICE - RECREATIONAL LIGHTING (214)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
All kWh	1,372,008	\$0.09266	\$127,130	1,372,008	\$0.10580	\$145,158
Metered kWh	1,372,008			1,372,008		
Customer Charge	986	\$17.50	\$17,255	986	\$22.50	\$22,185
Number of Customers	984			984		
Fuel		\$0.0015985	\$2,193		\$0.0015985	\$2,193
Purchase Power Adjustment			\$138			\$0
Big Sandy 1 Operations Rider		\$0.00471	\$5,325			\$0
Big Sandy Retirement Rider		5.4339%	\$0			\$0
Environmental Surcharge			\$3,542			\$0
Sub Total			\$155,583			\$169,537
Economic Development Rider		\$0.15	\$148	986	\$1.00	\$986
Incremental Environmental Surcharge (new ECR)				\$130,942	1.1413%	\$1,494.44
Total Revenue			\$155,731			\$172,017
Embedded (Base) Fuel					\$0.0272500	\$37,387

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MEDIUM GENERAL SERVICE TIME-OF-DAY (229)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
<u>Billing kWh</u>						
On-peak kWh	1,320,065	\$0.15955	\$210,616	1,320,065	\$0.17255	\$227,777
Off-peak kWh	2,265,492	\$0.05341	\$121,000	2,265,492	\$0.06347	\$143,791
Metered kWh	3,585,557			3,585,557		
Customer Charge	925	\$17.50	\$16,188	925	\$22.50	\$20,813
Number of Customers	924			924		
Fuel		\$0.0015985	\$5,732		\$0.0015985	\$5,732
Purchase Power Adjustment			\$326			\$0
Big Sandy 1 Operations Rider		\$0.00471	\$14,198			\$0
Environmental Surcharge		5.4339%	\$8,558			\$0
Sub Total			\$376,617			\$398,112
Economic Development Rider		0.15	138.75	925	\$1.00	\$925
Incremental Environmental Surcharge (new ECR)				\$295,599	1.1413%	\$3,374
Total Revenue			\$376,756			\$402,411
Embedded (Base) Fuel					\$0.0272500	\$97,706

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MEDIUM GENERAL SERVICE - PRIMARY (217, 220)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
<u>Billing kWh</u>						
First 200 kWh per kW	8,597,484	\$0.09357	\$804,467			
Over 200 kWh per kW	6,052,191	\$0.08360	\$505,963			
Minimum kWh	18,904					
Metered Voltage Adj.	4,968					
Metered kWh	14,673,547					
First 4,450 kWh				4,165,200	\$0.08804	\$366,704
Over 4,450 kWh				10,503,379	\$0.08834	\$927,869
Billing kW						
Standard	42,412	\$1.87	\$79,310			
Mining Minimum	1,544	\$7.95	\$12,275			
First 10 kW				12,221		
Billing kW greater than 10 kW				30,191	\$7.18	\$216,771
Customer Charge	936	\$50.00	\$46,800	936	\$75.00	\$70,200
Number of Customers	936			936		
Fuel		\$0.0015985	\$23,456		\$0.0015985	\$23,456
Purchase Power Adjustment			\$1,162			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00142	\$20,761			\$0
Big Sandy 1 Operations Rider - Demand		\$0.72	\$22,638			\$0
Environmental Surcharge		5.4339%	\$34,753			\$0
Sub Total			\$1,551,585			\$1,605,000
Economic Development Rider		\$0.15	\$140	936	\$1.00	\$936
Incremental Environmental Surcharge (new ECR)				\$1,182,626	1.1413%	\$13,497
Total Revenue			\$1,551,725			\$1,619,433
Embedded (Base) Fuel					\$0.0272500	\$399,854

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MEDIUM GENERAL SERVICE - SUBTRANSMISSION (236)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
<u>Billing kWh</u>						
First 200 kWh per kW	652,399	\$0.08634	\$56,328			
Over 200 kWh per kW	712,506	\$0.08103	\$57,734			
Minimum kWh	4,535					
Metered kWh	1,369,265					
First 4,450 kWh				307,841	\$0.07154	\$22,023
Over 4,450 kWh				1,061,599	\$0.07184	\$76,265
<u>Billing kW</u>						
Standard	4,136	\$1.83	\$7,569			
Mining Minimum	140	\$7.95	\$1,113			
First 10 kW				982		
Billing kW greater than 10 kW				3,154	\$5.74	\$18,104
Customer Charge	72	\$364.00	\$26,208	72	\$364.00	\$26,208
Number of Customers	72			72		
Fuel		\$0.0015985	\$2,189		\$0.0015985	\$2,189
Purchase Power Adjustment			\$140			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00142	\$1,940			\$0
Big Sandy 1 Operations Rider - Demand		\$0.72	\$2,305			\$0
Environmental Surcharge		5.4339%	\$3,636			\$0
Sub Total			\$159,162			\$144,789
Economic Development Rider		\$0.15	\$11	72	\$1.00	\$72
Incremental Environmental Surcharge (new ECR)				\$105,360	1.1413%	\$1,202
Total Revenue			\$159,173			\$146,063
Embedded (Base) Fuel					\$0.0272500	\$37,312

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SCHOOL SERVICE - SECONDARY

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
Billing kWh	109,165,161	\$0.07577	\$8,271,444	109,165,161	\$0.07671	\$8,374,060
Metered Voltage Adj.	547,100			547,100		
Metered kWh	109,712,261			109,712,261		
Billing kW	424,786	\$4.67	\$1,983,751	424,786	\$7.97	\$3,385,544
Excess kVA	6,066	\$3.46	\$20,988	6,066	\$3.46	\$20,988
Customer Charge	1,932	\$85.00	\$164,220	1,932	\$85.00	\$164,220
Number of Customers	1,932			1,932		
Fuel		\$0.0015985	\$175,376		\$0.0015985	\$175,376
Purchase Power Adjustment			\$9,968			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00142	\$154,533			\$0
Big Sandy 1 Operations Rider - Demand		\$0.92	\$311,506			\$0
Environmental Surcharge		5.4339%	\$248,247			\$0
Sub Total			\$11,340,033			\$12,120,188
Economic Development Rider		\$0.15	\$290	1,932	\$1.00	\$1,932
Incremental Environmental Surcharge (new ECR)				\$8,957,085	1.1413%	\$102,227
Total Revenue			\$11,340,323			\$12,224,347
Embedded (Base) Fuel					\$0.0272500	\$2,989,659

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SCHOOL SERVICE - PRIMARY

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
Billing kWh	1,855,532	\$0.06420	\$119,125	1,855,532	\$0.06709	\$124,488
Metered Voltage Adj.	0			-		
Metered kWh	1,855,532			1,855,532		
Billing kW	6,136	\$4.53	\$27,796	6,136	\$7.18	\$44,056
Excess kVA	659	\$3.46	\$2,279	659	\$3.46	\$2,279
Customer Charge	12	\$127.50	\$1,530	12	\$127.50	\$1,530
Number of Customers	12			12		
Fuel		\$0.0015985	\$2,966		\$0.0015985	\$2,966
Purchase Power Adjustment			\$156			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00142	\$2,615			\$0
Big Sandy 1 Operations Rider - Demand		\$0.92	\$4,545			\$0
Environmental Surcharge		5.4339%	\$3,433			\$0
Sub Total			\$164,445			\$175,319
Economic Development Rider		\$0.15	\$2	12	\$1.00	\$12
Incremental Environmental Surcharge (new ECR)				\$121,802	1.1413%	\$1,390
Total Revenue			\$164,447			\$176,721
Embedded (Base) Fuel					\$0.0272500	\$50,563

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LARGE GENERAL SERVICE - SECONDARY (240, 242)

	<u>Current Billing Units</u>	<u>Current Rate</u>	<u>Current Revenue</u>	<u>Proposed Billing Units</u>	<u>Proposed Rate</u>	<u>Proposed Revenue</u>	
Billing kWh	400,024,463	\$0.07966	\$31,865,949	400,024,463	\$0.08134	\$32,537,990	
Metered Voltage Adj.	58,996			58,996			
Metered kWh	400,083,459			400,083,459			
Billing kW	1,085,356	\$4.67	\$5,068,613	1,085,356	\$7.97	\$8,650,287	
Excess kVA	40,806	\$3.46	\$141,189	40,806	\$3.46	\$141,189	
Customer Charge	6,951	\$85.00	\$590,835	6,951	\$85.00	\$590,835	
Number of Customers	6,948			6,948			
Fuel		\$0.0015985	\$639,536		\$0.0015985	\$639,536	\$814,912
Purchase Power Adjustment			\$35,418			\$0	
Big Sandy 1 Operations Rider - Energy		\$0.00142	\$562,982			\$0	
Big Sandy 1 Operations Rider - Demand		\$0.92	\$800,057			\$0	
Environmental Surcharge		5.4339%	\$911,367			\$0	
Sub Total			\$40,615,945			\$42,559,837	
Economic Development Rider		0.15	\$1,043	6,951	\$1.00	\$6,951	
Incremental Environmental Surcharge				\$31,024,978	1.1413%	\$354,088	
Total Revenue			\$40,616,987			\$42,920,876	
Embedded (Base) Fuel					\$0.0272500	\$10,902,274	

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LARGE GENERAL SERVICE LOAD MANAGEMENT TIME-OF-DAY (251)

	<u>Current Billing Units</u>	<u>Current Rate</u>	<u>Current Revenue</u>	<u>Proposed Billing Units</u>	<u>Proposed Rate</u>	<u>Proposed Revenue</u>
<u>Billing kWh</u>						
On-peak kWh	851,281	\$0.13136	\$111,824	851,281	\$0.14672	\$124,900
Off-peak kWh	1,079,454	\$0.05325	\$57,481	1,079,454	\$0.06351	\$68,556
Metered kWh	1,930,735			1,930,735		
Customer Charge	96	\$85.00	\$8,160	96	\$85.00	\$8,160
Number of Customers	96			96		
Fuel		\$0.0015985	\$3,086		\$0.0015985	\$3,086
Purchase Power Adjustment			\$171			\$0
Big Sandy 1 Operations Rider		\$0.00456	\$7,731			\$0
Environmental Surcharge		5.4339%	\$4,183			\$0
Sub Total			\$192,636			\$204,702
Economic Development Rider		0.15	14.4	96	\$1.00	\$96
Incremental Environmental Surcharge (new ECR)				\$149,100	1.1413%	\$1,702
Total Revenue			\$192,651			\$206,500
Embedded (Base) Fuel					\$0.0272500	\$52,613

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LARGE GENERAL SERVICE SECONDARY TIME-OF-DAY (256)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
<u>Billing kWh</u>						
On-peak kWh	1,552,149	\$0.08542	\$132,585	1,552,149	\$0.10224	\$158,692
Off-peak kWh	1,432,878	\$0.04387	\$62,860	1,432,878	\$0.04369	\$62,602
Metered kWh	2,985,027			2,985,027		
Billing kW	6,051	\$9.55	\$57,789		\$10.87	\$65,777
Excess kVA	989	\$3.46	\$3,423	989	\$3.46	\$3,423
Customer Charge	32	\$85.00	\$2,720	32	\$85.00	\$2,720
Number of Customers	36			36		
Fuel		\$0.0015985	\$4,772		\$0.0015985	\$4,772
Purchase Power Adjustment			\$548			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00142	\$4,239			\$0
Big Sandy 1 Operations Rider - Demand		\$0.92	\$5,567			\$0
Environmental Surcharge		5.4339%	\$5,400			\$0
Sub Total			\$279,903			\$297,986
Economic Development Rider		\$0.15	\$5	32	\$1.00	\$32
Incremental Environmental Surcharge (new ECR)				\$211,904	1.1413%	\$2,418
Total Revenue			\$279,908			\$300,436
Embedded (Base) Fuel					\$0.0272500	\$81,342

KENTUCKY POWER BILLING ANALYSIS
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LARGE GENERAL SERVICE - PRIMARY (244, 246)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
Billing kWh	78,038,479	\$0.06809	\$5,313,640	78,038,479	\$0.07152	\$5,581,312
Metered Voltage Adj.	(19,460)			(19,460)		
Metered kWh	78,019,019			78,019,019		
Billing kW	275,247	\$4.53	\$1,246,869	275,247	\$7.18	\$1,976,273
Excess kVA	49,918	\$3.46	\$172,716	49,918	\$3.46	\$172,716
Customer Charge	710	\$127.50	\$90,525	710	\$127.50	\$90,525
Number of Customers	708			708		
Fuel		\$0.0015985	\$124,714		\$0.0015985	\$124,714
Purchase Power Adjustment			\$6,662			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00142	\$109,858			\$0
Big Sandy 1 Operations Rider - Demand		\$0.92	\$205,799			\$0
Environmental Surcharge		5.4339%	\$158,630			\$0
Sub Total			\$7,429,413			\$7,945,541
Economic Development Rider		\$0.15	\$107	710	\$1.00	\$710
Incremental Environmental Surcharge (new ECR)				\$5,695,518	1.1413%	\$65,003
Total Revenue			\$7,429,520			\$8,011,254
Embedded (Base) Fuel					\$0.0272500	\$2,126,018

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

LARGE GENERAL SERVICE - SUBTRANSMISSION (248)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
Billing kWh	35,956,635	\$0.04791	\$1,722,682	35,956,635	\$0.05535	\$1,990,200
Metered Voltage Adj.	(20,074)			(20,074)		
Metered kWh	35,936,561			35,936,561		
Billing kW	129,190.6	\$4.48	\$578,774	129,191	\$5.74	\$741,554
Excess kVA	9,098.9	\$3.46	\$31,482	9,099	\$3.46	\$31,482
Customer Charge	204	\$628.50	\$128,214	204	\$660.00	\$134,640
Number of Customers	204			204		
Fuel		\$0.0015985	\$57,445		\$0.0015985	\$57,445
Purchase Power Adjustment			\$3,093			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00142	\$50,594			\$0
Big Sandy 1 Operations Rider - Demand		\$0.92	\$97,668			\$0
Environmental Surcharge		5.4339%	\$50,619			\$0
Sub Total			\$2,720,571			\$2,955,321
Economic Development Charge		\$0.15	\$31	204	\$1.00	\$204
Incremental Environmental Surcharge (new ECR)			\$50,619	\$1,918,809	1.1413%	\$21,899
Total Revenue			\$2,771,221			\$2,977,424
Embedded (Base) Fuel					\$0.0272500	\$979,271

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

LARGE GENERAL SERVICE - TRANSMISSION (250)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
Billing kWh	1,693,502	\$0.04699	\$79,578	1,693,502	\$0.05429	\$91,940
Metered Voltage Adj.	(5,350)			(5,350)		
Metered kWh	1,688,152			1,688,152		
Billing kW	6,693	\$4.41	\$29,518	6,693	\$5.60	\$37,483
Excess kVA	3	\$3.46	\$12	3	\$3.46	\$12
Customer Charge	24	\$628.50	\$15,084	24	\$660.00	\$15,840
Number of Customers	24			24		
Fuel		\$0.0015985	\$2,699		\$0.0015985	\$2,699
Purchase Power Adjustment			\$344			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00142	\$2,373			\$0
Big Sandy 1 Operations Rider - Demand		\$0.92	\$4,378			\$0
Environmental Surcharge		5.4339%	\$2,740			\$0
Sub Total			\$136,725			\$147,974
Economic Development Rider	21	\$0.15	\$4	24	\$1.00	\$24
Incremental Environmental Surcharge (new ECR)			\$2,740	\$99,297	1.1413%	\$1,133
Total Revenue			\$139,468			\$149,131
Embedded (Base) Fuel					\$0.0272500	\$46,002

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

INDUSTRIAL GENERAL SERVICE - SECONDARY (356)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
Billing kWh	15,517,623	\$0.03242	\$503,081	15,517,623	\$0.03005	\$466,305
Metered kWh	15,517,623			15,517,623		
<u>Billing kW</u>						
On-Peak	18,084	\$18.23	\$329,666	18,084	\$24.13	\$436,360
Off-Peak	17,240	\$1.10	\$18,964	17,240	\$1.60	\$27,584
Minimum	13,841	\$19.59	\$271,141	13,841	\$25.83	\$357,508
Maximum	0					
Billing KVAR	26	\$0.69	\$18	26	\$0.69	\$18
Customer Charge	48	\$276.00	\$13,248	48	\$276.00	\$13,248
Number of Customers	48			48		
Fuel		\$0.0015985	\$24,805		\$0.0015985	\$24,805
Purchase Power Adjustment			\$1,170			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00141	\$21,751			\$0
Big Sandy 1 Operations Rider - Demand		\$1.14	\$28,618			\$0
Environmental Surcharge			\$25,082			\$0
Sub Total			\$1,237,544			\$1,325,827
Economic Development Rider		\$0.15	\$7	48	\$1.00	\$48
Incremental Environmental Surcharge (ECR)				\$878,215	1.1413%	\$10,023
Total Revenue			\$1,237,552			\$1,335,898
Embedded (Base) Fuel					\$0.0272500	\$422,855

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

INDUSTRIAL GENERAL SERVICE - PRIMARY (358)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
Billing kWh	283,398,759	\$0.03126	\$8,859,045	283,398,759	\$0.02891	\$8,193,058
Metered kWh	283,356,811			283,356,811		
<u>Billing kW</u>						
On-Peak	515,170	\$15.21	\$7,835,736	515,170	\$20.57	\$10,597,047
Off-Peak	485,643	\$1.07	\$519,638	485,643	\$1.55	\$752,747
Minimum	111,893	\$16.53	\$1,849,591	111,893	\$22.21	\$2,485,144
Maximum	0					
Billing KVAR	97,486	\$0.69	\$67,265	97,486	\$0.69	\$67,265
Customer Charge	420	\$276.00	\$115,920	420	\$276.00	\$115,920
Number of Customers	420			420		
Fuel		\$0.0015985	\$452,948		\$0.0015985	\$452,948
Purchase Power Adjustment			\$18,925			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00141	\$397,123			\$0
Big Sandy 1 Operations Rider - Demand		\$1.14	\$555,904			\$0
Environmental Surcharge		5.4339%	\$400,553			\$0
Sub Total			\$21,072,648			\$22,664,129
Economic Development Rider		\$0.15	\$63	420	\$1.00	\$420
Incremental Environmental Surcharge (new ECM)				\$14,490,127	1.1413%	\$165,376
Total Revenue			\$21,072,711			\$22,829,924
Embedded (Base) Fuel					\$0.0272500	\$7,721,473

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

INDUSTRIAL GENERAL SERVICE - SUBTRANSMISSION (359, 371)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
Billing kWh	1,778,446,706	\$0.03090	\$54,954,003	1,778,446,706	\$0.02852	\$50,721,300
Metered kWh	1,778,362,947			1,778,362,947		
<u>Billing kW</u>						
On-Peak	2,798,169	\$10.02	\$28,037,653	2,798,169	\$13.69	\$38,306,934
Off-Peak	2,752,830	\$1.05	\$2,890,472	2,752,830	\$1.51	\$4,156,773
Minimum	311,262	\$11.32	\$3,523,486	311,262	\$15.30	\$4,762,309
Maximum	0			-		
CS-IRP Demand Credit	11,420	(\$3.68)	(\$42,026)	11,420	(\$3.68)	(\$42,026)
Billing KVAR	329,002	\$0.69	\$227,011	329,002	\$0.69	\$227,011
Customer Charge	312	\$794.00	\$247,728	312	\$794.00	\$247,728
Number of Customers	312			312		
Fuel		\$0.0015985	\$2,842,724		\$0.0015985	\$2,842,724
Purchase Power Adjustment			\$87,389			\$0
Big Sandy 1 Operations Rider - Energy		\$0.00141	\$2,493,140			\$0
Big Sandy 1 Operations Rider - Demand		\$1.14	\$2,772,224			\$0
Environmental Surcharge		5.4339%	\$1,444,420			\$0
Sub Total			\$99,478,225			\$101,222,753
Economic Development Rider		\$0.15	\$47	312	\$1.00	\$312
Incremental Environmental Surcharge (new ECR)				\$49,919,951	1.1413%	\$569,736
Total Revenue			\$99,478,271			\$101,792,802
Embedded (Base) Fuel					\$0.0272500	\$48,460,390

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

INDUSTRIAL GENERAL SERVICE - TRANSMISSION (360, 372)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
Billing kWh	313,600,300	\$0.03052	\$9,571,081	313,600,300	\$0.02813	\$8,821,576
Metered kWh	313,600,300			313,600,300		
<u>Billing kW</u>						
On-Peak	169,183	\$9.75	\$1,649,536	169,183	\$13.26	\$2,243,389
Off-Peak	164,991	\$1.04	\$171,590	164,991	\$1.49	\$245,836
Minimum	350,678	\$11.03	\$3,867,979	350,678	\$14.86	\$5,211,077
Maximum	0					
Billing KVAR	28,674	\$0.69	\$19,785	28,674	\$0.69	\$19,785
Customer Charge	36	\$1,353.00	\$48,708	36	\$1,353.00	\$48,708
Number of Customers	36			36		
Fuel		\$0.0015985	\$501,292		\$0.0015985	\$501,292
Purchase Power Adjustment			\$15,846			
Big Sandy 1 Operations Rider - Energy		\$0.00141	\$439,441			\$0
Big Sandy 1 Operations Rider - Demand		\$1.14	\$455,657			\$0
Environmental Surcharge		5.4339%	\$240,309			\$0
Sub Total			\$16,981,225			\$17,091,643
Economic Development Rider		\$0.15	\$5	36	\$1.00	\$36
Incremental Environmental Surcharge (new ECR)				\$8,044,779	↑1413%	\$91,815
Total Revenue			\$16,981,231			\$17,183,494
Embedded (Base) Fuel					\$0.0272500	\$8,545,608

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

MUNICIPAL WATERWORKS (540)

	<u>Current Billing Units</u>	<u>Current Rate</u>	<u>Current Revenue</u>	<u>Proposed Billing Units</u>	<u>Proposed Rate</u>	<u>Proposed Revenue</u>
All kWh	1,909,870	\$0.08515	\$162,625	1,909,870	\$0.09291	\$177,446
Minimum kWh	82,225			82,225		
Metered kWh	1,992,095			1,992,095		
Minimum kW	1,791	\$8.20	\$14,689	1,791	\$8.89	\$15,925
Customer Charge	120	\$22.90	\$2,748	120	\$22.90	\$2,748
Number of Customers	120			120		
Fuel		\$0.0015985	\$3,184		\$0.0015985	\$3,184
Purchase Power Adjustment			\$178			\$0
Big Sandy 1 Operations Rider		\$0.0039	\$6,575			\$0
Environmental Surcharge		5.4339%	\$4,343			\$0
Sub Total			\$194,342			\$199,303
Economic Development Rider	120	\$0.15	\$18	120	\$1.00	\$120
Incremental Environmental Surcharge (new ECR)				\$141,954	1.1413%	\$1,620
Total Revenue			\$194,360			\$201,043
Embedded (Base) Fuel					\$0.0272500	\$54,285

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

OUTDOOR LIGHTING (093, 094, 095, 097, 098, 099, 107, 109, 110, 111, 113, 116, 120, 122, 131)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
<u>Overhead Lighting Service</u>						
High Pressure Sodium						
100 watts, 9,500 Lumens (094)	271,740	\$9.30	\$2,527,182	271,740	\$9.75	\$2,649,465
150 watts, 16,000 Lumens (113)	266,040	\$10.58	\$2,814,703	266,040	\$11.05	\$2,939,742
200 watts, 22,000 Lumens (097)	22,356	\$12.30	\$274,979	22,356	\$13.40	\$299,570
250 watts, 28,000 Lumens (103)	0	\$17.63	\$0	0	\$18.20	\$0
400 watts, 50,000 Lumens (098)	2,498	\$19.01	\$47,449	2,498	\$20.85	\$52,042
Mercury Vapor						
175 watts, 7,000 Lumens (093)	10,056	\$10.47	\$105,286	10,056	\$11.15	\$112,124
400 watts, 20,000 Lumens (095)	1,032	\$18.07	\$18,648	1,032	\$19.25	\$19,866
<u>Post Top Lighting Service</u>						
High Pressure Sodium - PT - UG Circuit						
100 watts, 9,500 Lumens (111)	9,384	\$14.10	\$132,314	9,384	\$15.45	\$144,983
150 watts, 16,000 Lumens (122)	864	\$23.13	\$19,984	864	\$25.40	\$21,946
Mercury Vapor - PT - UG Circuit						
175 watts, 7,000 Lumens (099)	108	\$12.02	\$1,298	108	\$12.80	\$1,382
High Pressure Sodium - Shoebox with Decorative Pole						
100 watts, 9,500 Lumens (121)	0	\$32.85	\$0	0	\$31.25	\$0
250 watts, 28,000 Lumens (120)	12	\$25.83	\$310	12	\$28.35	\$340
400 watts, 50,000 Lumens (126)	0	\$42.96	\$0	0	\$41.55	\$0
<u>Flood Lighting Service</u>						
High Pressure Sodium - Floodlight, existing pole						
200 watts, 22,000 Lumens (107)	22,080	\$14.40	\$317,952	22,080	\$15.70	\$346,656
400 watts, 50,000 Lumens (109)	52,008	\$20.16	\$1,048,481	52,008	\$22.00	\$1,144,176
Metal Halide - Floodlight, existing pole						
250 watts, 20,500 Lumens (110)	1,668	\$17.88	\$29,824	1,668	\$18.15	\$30,274
400 watts, 36,000 Lumens (116)	11,520	\$22.57	\$260,006	11,520	\$22.80	\$262,656
1000 watts, 110,000 Lumens (131)	972	\$41.06	\$39,910	972	\$41.70	\$40,532
Metal Halide - Mongoose Light, existing pole						
250 watts, 20,500 Lumens (130)	0	\$24.63	\$0	0	\$23.80	\$0
400 watts, 36,000 Lumens (136)	0	\$29.42	\$0	0	\$28.50	\$0
Metered kWh	43,044,440			43,044,440		
Facilities Charge						
Pole	52,992	\$3.10	\$164,275	52,992	\$3.40	\$180,173
Span	56,652	\$1.80	\$101,974	56,652	\$2.00	\$113,304
Lateral	744	\$6.75	\$5,022	744	\$7.40	\$5,506
Fuel		\$0.0015985	\$68,807		\$0.0015985	\$68,807
Purchase Power Adjustment			\$7,138			\$0
Big Sandy 1 Operations Rider		\$0.00159	\$0			\$0
Big Sandy Retirement Rider		5.4339%	\$66,586			\$0
Environmental Surcharge			\$179,665			\$0
Sub Total			\$8,231,795			\$8,433,544
Incremental Environmental Surcharge (new ECR)				\$7,191,776		\$82,080
Total Revenue			\$8,231,795			\$8,515,624
Embedded (Base) Fuel					\$0.0272500	\$1,172,961

KENTUCKY POWER BILLING ANALYSIS
 PROFORMA
 TEST YEAR ENDED FEBRUARY 28, 2017

STREET LIGHTING (528)

	Current Billing Units	Current Rate	Current Revenue	Proposed Billing Units	Proposed Rate	Proposed Revenue
OH Service on Distribution Poles						
High Pressure Sodium						
100 watts, 9,500 Lumens	92,088	\$7.80	\$718,286	92,088	\$8.25	\$759,726
150 watts, 16,000 Lumens	1,320	\$8.88	\$11,722	1,320	\$9.30	\$12,276
200 watts, 22,000 Lumens	27,336	\$10.70	\$292,495	27,336	\$11.40	\$311,630
400 watts, 50,000 Lumens	6,048	\$15.96	\$96,526	6,048	\$16.55	\$100,094
Service on New Wood Distribution Poles						
High Pressure Sodium						
100 watts, 9,500 Lumens	5,508	\$11.05	\$60,863	5,508	\$12.05	\$66,371
150 watts, 16,000 Lumens	348	\$12.23	\$4,256	348	\$13.35	\$4,646
200 watts, 22,000 Lumens	6,588	\$14.15	\$93,220	6,588	\$15.45	\$101,785
400 watts, 50,000 Lumens	1,452	\$19.76	\$28,692	1,452	\$21.50	\$31,218
Service on New Metal or Concrete Poles						
High Pressure Sodium						
100 watts, 9,500 Lumens	-	\$20.40	\$0	0	\$29.05	\$0
150 watts, 16,000 Lumens	-	\$21.38	\$0	0	\$30.30	\$0
200 watts, 22,000 Lumens	1,128	\$27.20	\$30,682	1,128	\$29.45	\$33,220
400 watts, 50,000 Lumens	300	\$29.46	\$8,838	300	\$32.20	\$9,660
Metered kWh	8,283,856			8,283,856		
Number of Customers				0		
Fuel		\$0.0015985	\$13,242		\$0.0015985	\$13,242
Purchase Power Adjustment			\$1,192			\$0
Big Sandy 1 Operations Rider		\$0.0016	\$12,872			\$0
Environmental Surcharge		5.4339%	\$34,222			\$0
Sub Total			\$1,407,108			\$1,443,868
Incremental Environmental Surcharge (new ECR)				\$1,204,891	1.1413%	\$13,751
Total Revenue			\$1,407,108			\$1,457,619
Embedded (Base) Fuel					\$0.0272500	\$225,735

EXHIBIT AEV-4S

Kentucky Power Company
Purchase Power Adjustment
 XXXXX-Month Period ended XXXX
 SAMPLE ONLY

<u>Line</u>		
(1)	Actual Non-Rockport PPA Costs X-Months Ended xxx - Form 3.0	79,835,179
(2)	Non-Rockport PPA Base Rate Amount - Form 5.0 (Based on No. of Months)	78,737,938
(3)	Non-Rockport Current Period Revenue Requirement (Line 1 - Line 2)	1,097,240
(4)	Increase in Rockport Collection - Reduction of Amount of Rockport Base Rate Deferral (2020 - Dec 8, 2022)*	
(5)	Rockport Fixed Cost Savings (Dec 9, 2022+)	(11,111,111)
(6)	Subtotal (Line 3 + Line 4 + Line 5)	(10,013,871)
(7)	Gross-Up (Line 6 X .005425)	(543,252)
(8)	Rockport Deferral Amount to be Recovered through the PPA (Dec 9, 2022 - Dec 8, 2027)	13,834,418
(9)	Estimated Rockport Offset Amount (2023)	821,670
(10)	Rockport Offset True-Up (2024)	(164,334)
(11)	PPA Revenue Requirement before Prior Period Over/Under (Line 6 + Line 7 + Line 8 + Line 9 + Line 10)	3,934,631
(12)	Actual PPA Revenue Collected For X-Months Ended xxxxxx from PPA Form 4.0	7,777,777
(13)	Prior Period PPA Revenue Target - Previous PPA Update Filing	8,888,888
(14)	Going Level PPA Revenue Requirement (Line 11 - Line 12 + Line 13)	<u>5,045,742</u>

a.) Demand	\$4,660,892
b.) Energy	<u>\$384,850</u>
	\$5,045,742

* \$5 million in 2020, \$10 million in 2021 and 2022

Kentucky Power Company
Purchase Power Adjustment Rate Design

PPA - Form 2.0

	Demand	Energy	Total
KY Retail Jurisdiction Revenue Requirement	\$4,660,892	\$384,850	\$5,045,742

<u>Class</u> (1)	Historic Period Billing <u>Energy</u> (2)	Historic Period Billing <u>Demand</u> (3)	Test Year CP / kWh <u>Ratio</u> (4)	CP Demand Allocation <u>Factor</u> (5) = (2) x (4)	Allocated Demand Related <u>Costs</u> on (5) (6)	Allocated Energy Related <u>Costs</u> on (2) (7)	\$ / kW <u>Rate</u> (8) = (6) / (3)	\$ / kWh <u>Rate</u> (9) = (7) / (2)	Revenue <u>Verification</u> (10)	<u>Difference</u> (11) = (10) - (6) - (7)
RES	2,042,413,442		0.0240909%	492,036	\$2,295,119	\$141,285	\$ -	\$0.00119	\$2,430,472	-\$5,932
GS (SGS/MGS)	592,644,207		0.0196551%	116,485	543,348	40,996	\$ -	\$0.00099	586,718	\$2,374
LGS	630,280,009	1,933,460	0.0170480%	107,450	501,204	43,600	\$ 0.26	\$0.00007	546,819	\$2,015
LGS LMTOD	1,930,735		0.0170480%	329	1,535	134	\$ -	\$0.00086	1,660	-\$9
IGS	2,242,555,474	3,501,814	0.0126039%	282,649	1,318,426	155,130	\$ 0.37	\$0.00007	1,452,650	-\$20,906
MW	1,992,095		0.0135480%	270	1,259	138	\$ -	\$0.00070	1,394	-\$3
OL	43,044,440		0.0000000%	0	0	2,978	\$ -	\$0.00007	3,013	\$35
SL	8,517,885		0.0000000%	0	0	589	\$ -	\$0.00007	596	\$7
Total	5,563,378,287	5,435,274		999,219	\$4,660,891	\$384,850			\$5,023,323	(\$22,418)

Kentucky Power Company
PPA Costs
Actual Operating Expenses for the XX Month period ended XXXX
SAMPLE ONLY

Account	Description	Actual Period Total	Classification	Allocation	Retail Total
4561005	PJM Point to Point Trans Svc	(\$111,111)	Demand	1.00	\$ (111,111)
4561002	RTO Formation Cost Recovery	(\$222,222)	Demand	1.00	\$ (222,222)
4561035-LSE	PJM Affiliated Trans NITS Cost	\$44,444,444	Demand	1.00	\$ 44,444,444
4561036-LSE	PJM Affiliated Trans TO Cost	\$555,555	Energy	1.00	\$ 555,555
4561060-LSE	Affil PJM Trans Enhancmnt Cost	\$777,777	Demand	1.00	\$ 777,777
5650012	PJM Trans Enhancement Charge	\$5,555,555	Demand	1.00	\$ 5,555,555
5650016	PJM NITS Expense - Affiliated	\$18,888,888	Demand	1.00	\$ 18,888,888
5650019	Affil PJM Trans Enhncement Exp	\$4,444,444	Demand	1.00	\$ 4,444,444
PJM LSE OATT		\$74,333,330			\$ 74,333,330
PJM LSE OATT Base Amount					\$ 74,038,517
Incremental PJM LSE OATT					\$ 294,813
80% of Incremental PJM LSE OATT					\$ 235,850
PJM LSE OATT To be included in PPA					\$ 74,274,367
Purchase Power Limitation (including forced outage limitation) - Acct 555	\$	5,555,555	Energy	1.00	\$ 5,555,556
CS IRP Credits - Acct 44X	\$	77,777	Demand	1.00	\$ 77,777
Incidental Gas Sales - 5010040	\$	(22,222)	Energy	0.986	\$ (21,911)
FERC vs KY Retail ROE Delta Return Calculation		(\$50,611)	Demand	1	(\$50,611)
Total PPA Costs					\$79,835,179

	\$	%
Total Demand	\$ 73,745,978	0.924
Total Energy	\$ 6,089,200	0.076

Kentucky Power Company
 PPA Revenue Collected
 XX-Month Period ended XXX

<u>Line</u>	<u>Tariff Class</u>	<u>Total for Over/Under</u>
(1)	RES	-
(2)	GS (Includes SGS-TOD and MGS-TOD)	-
(3)	LGS	-
(4)	LGS LMTOD	-
(5)	IGS	-
(6)	MW	-
(7)	OL	-
(8)	SL	-
(9)	Total	-
(10)	Total Revenue Collected	-

PPA Rider Base Rate Amounts
 12 Months Ended February 28, 2017
 KPCo KY Retail Jurisdiction

PPA - Form 5.0

Line	Account	Description	Adjusted Test Year Total	Classification
(1)	4561005	PJM Point to Point Trans Svc	(\$535,143)	Demand
(2)	4561002	RTO Formation Cost Recovery	\$196,296	Demand
(3)	4561035	PJM Affiliated Trans NITS Cost	\$45,453,207	Demand
(4)	4561036	PJM Affiliated Trans TO Cost	\$566,356	Energy
(5)	4561060	Affil PJM Trans Enhancmnt Cost	\$788,524	Demand
(6)	5650012	PJM Trans Enhancement Charge	\$5,035,193	Demand
(7)	5650016	PJM NITS Expense - Affiliated	\$18,568,254	Demand
(8)	5650019	Affil PJM Trans Enhncement Exp	\$3,965,830	Demand
(9)	PJM LSE OATT Base Amount		<u>\$74,038,517</u>	
(10)	Purchase Power Limitation Base Amount - Acct 555		\$ 4,671,377	Energy
(11)	CS IRP Credits Base Amount - Acct 44X		\$ 42,026	Demand
(12)	Incidental Gas Sales Base Amount - 5010040		\$ (13,982)	Energy
(13)	Total PPA Base Amount		<u><u>\$78,737,938</u></u>	
(14)	Monthly PPA Base Amount to be used for Periods less than 12 months (Line 11/12)		<u><u>\$6,561,494.84</u></u>	

FERC vs KY Retail ROE Delta Return Calculation

			<u>Source</u>
a	TO Transmission Rate Base	\$ 319,471,085	2018 OATT TCOS
b	KY Juris Retail Demand Factor	0.985	2017-00179 Section V, Allocation Factor
c = a*b	KY Retail TO Trans Rate Base	\$ 314,679,018	calculation
d	Base Rate KY Retail Trans Rate Base	\$ 266,193,975	2017-00179 Class Cost of Service
e = c-d	Difference	\$ 48,485,043	calculation
f	TO WACC @ 11.49 ROE	7.55%	2018 OATT TCOS
g	TO WACC @ 9.75 ROE	6.78%	2018 OATT TCOS
h = f-g	Difference	0.77%	calculation
j = e*h	TO Return Delta	\$ 371,431	calculation
k	GRCF	1.6351	2018 OATT TCOS
l = j*k	<u>2018 Tariff PPA Revenue Credit</u>	<u>\$ 607,326</u>	calculation
m	Monthly Amount to be used for Periods less than 12 months (Line 11/12)	<u><u>\$50,611</u></u>	

WACC 9.11%
 Monthly 0.7592%
 Monthly Payment \$1,152,868
 Retail Revenue Requirement \$13,834,418

Line	Month	Additions	Levelized Payment	Calculated Change in RA	Month End			Balance of Components Subject to WACC	Carrying Charges on Principal net of ADIT only	Carrying Charges on Total Reg Asset net of ADIT	Month End Reg Asset Balance
					Reg Asset Balance Excl. CC	ADIT on RA	ADIT Balance				
1	January-18	1,250,000		1,250,000	1,250,000	(437,500)	(437,500)	812,500	-	1,250,000	
2	February-18	1,250,000		1,250,000	2,500,000	(437,500)	(875,000)	1,625,000	6,168	2,506,168	
3	March-18	1,250,000		1,250,000	3,750,000	(437,500)	(1,312,500)	2,437,500	12,336	3,768,505	
4	April-18	1,250,000		1,250,000	5,000,000	(437,500)	(1,750,000)	3,250,000	18,505	5,037,009	
5	May-18	1,250,000		1,250,000	6,250,000	(437,500)	(2,187,500)	4,062,500	24,673	6,311,682	
6	June-18	1,250,000		1,250,000	7,500,000	(437,500)	(2,625,000)	4,875,000	30,841	7,592,523	
7	July-18	1,250,000		1,250,000	8,750,000	(437,500)	(3,062,500)	5,687,500	37,009	8,879,533	
8	August-18	1,250,000		1,250,000	10,000,000	(437,500)	(3,500,000)	6,500,000	43,178	10,172,710	
9	September-18	1,250,000		1,250,000	11,250,000	(437,500)	(3,937,500)	7,312,500	49,346	11,472,056	
10	October-18	1,250,000		1,250,000	12,500,000	(437,500)	(4,375,000)	8,125,000	55,514	12,777,570	
11	November-18	1,250,000		1,250,000	13,750,000	(437,500)	(4,812,500)	8,937,500	61,682	14,089,253	
12	December-18	1,250,000		1,250,000	15,000,000	(437,500)	(5,250,000)	9,750,000	67,851	15,407,103	
13	January-19	1,250,000		1,250,000	16,250,000	(437,500)	(5,687,500)	10,562,500	74,019	16,731,122	
14	February-19	1,250,000		1,250,000	17,500,000	(437,500)	(6,125,000)	11,375,000	80,187	18,061,309	
15	March-19	1,250,000		1,250,000	18,750,000	(437,500)	(6,562,500)	12,187,500	86,355	19,397,664	
16	April-19	1,250,000		1,250,000	20,000,000	(437,500)	(7,000,000)	13,000,000	92,523	20,740,188	
17	May-19	1,250,000		1,250,000	21,250,000	(437,500)	(7,437,500)	13,812,500	98,692	22,088,879	
18	June-19	1,250,000		1,250,000	22,500,000	(437,500)	(7,875,000)	14,625,000	104,860	23,443,739	
19	July-19	1,250,000		1,250,000	23,750,000	(437,500)	(8,312,500)	15,437,500	111,028	24,804,767	
20	August-19	1,250,000		1,250,000	25,000,000	(437,500)	(8,750,000)	16,250,000	117,196	26,171,964	
21	September-19	1,250,000		1,250,000	26,250,000	(437,500)	(9,187,500)	17,062,500	123,365	27,545,328	
22	October-19	1,250,000		1,250,000	27,500,000	(437,500)	(9,625,000)	17,875,000	129,533	28,924,861	
23	November-19	1,250,000		1,250,000	28,750,000	(437,500)	(10,062,500)	18,687,500	135,701	30,310,562	
24	December-19	1,250,000		1,250,000	30,000,000	(437,500)	(10,500,000)	19,500,000	141,869	31,702,431	
25	January-20	833,333		833,333	30,833,333	(291,667)	(10,791,667)	20,041,667	148,038	32,683,802	
26	February-20	833,333		833,333	31,666,667	(291,667)	(11,083,333)	20,583,333	152,150	33,669,285	
27	March-20	833,333		833,333	32,500,000	(291,667)	(11,375,000)	21,125,000	156,262	34,658,880	
28	April-20	833,333		833,333	33,333,333	(291,667)	(11,666,667)	21,666,667	160,374	35,652,588	
29	May-20	833,333		833,333	34,166,667	(291,667)	(11,958,333)	22,208,333	164,486	36,650,407	
30	June-20	833,333		833,333	35,000,000	(291,667)	(12,250,000)	22,750,000	168,598	37,652,339	
31	July-20	833,333		833,333	35,833,333	(291,667)	(12,541,667)	23,291,667	172,710	38,658,382	
32	August-20	833,333		833,333	36,666,667	(291,667)	(12,833,333)	23,833,333	176,823	39,668,538	
33	September-20	833,333		833,333	37,500,000	(291,667)	(13,125,000)	24,375,000	180,935	40,682,806	
34	October-20	833,333		833,333	38,333,333	(291,667)	(13,416,667)	24,916,667	185,047	41,701,186	
35	November-20	833,333		833,333	39,166,667	(291,667)	(13,708,333)	25,458,333	189,159	42,723,679	
36	December-20	833,333		833,333	40,000,000	(291,667)	(14,000,000)	26,000,000	193,271	43,750,283	
37	January-21	416,667		416,667	40,416,667	(145,833)	(14,145,833)	26,270,833	197,383	44,364,333	
38	February-21	416,667		416,667	40,833,333	(145,833)	(14,291,667)	26,541,667	199,439	44,980,439	
39	March-21	416,667		416,667	41,250,000	(145,833)	(14,437,500)	26,812,500	201,495	45,598,602	
40	April-21	416,667		416,667	41,666,667	(145,833)	(14,583,333)	27,083,333	203,552	46,218,820	
41	May-21	416,667		416,667	42,083,333	(145,833)	(14,729,167)	27,354,167	205,608	46,841,094	
42	June-21	416,667		416,667	42,500,000	(145,833)	(14,875,000)	27,625,000	207,664	47,465,424	
43	July-21	416,667		416,667	42,916,667	(145,833)	(15,020,833)	27,895,833	209,720	48,091,811	
44	August-21	416,667		416,667	43,333,333	(145,833)	(15,166,667)	28,166,667	211,776	48,720,253	
45	September-21	416,667		416,667	43,750,000	(145,833)	(15,312,500)	28,437,500	213,832	49,350,752	
46	October-21	416,667		416,667	44,166,667	(145,833)	(15,458,333)	28,708,333	215,888	49,983,307	
47	November-21	416,667		416,667	44,583,333	(145,833)	(15,604,167)	28,979,167	217,944	50,617,918	
48	December-21	416,667		416,667	45,000,000	(145,833)	(15,750,000)	29,250,000	220,000	51,254,584	
49	January-22	444,126		444,126	45,444,126	(155,444)	(15,905,444)	29,538,682	222,056	51,920,767	
50	February-22	444,126		444,126	45,888,252	(155,444)	(16,060,888)	29,827,364	224,248	52,589,141	
51	March-22	444,126		444,126	46,332,378	(155,444)	(16,216,332)	30,116,046	226,439	53,259,706	
52	April-22	444,126		444,126	46,776,504	(155,444)	(16,371,776)	30,404,728	228,631	53,932,463	
53	May-22	444,126		444,126	47,220,630	(155,444)	(16,527,221)	30,693,410	230,823	54,607,412	
54	June-22	444,126		444,126	47,664,756	(155,444)	(16,682,665)	30,982,092	233,014	55,284,552	
55	July-22	444,126		444,126	48,108,882	(155,444)	(16,838,109)	31,270,774	235,206	55,963,884	
56	August-22	444,126		444,126	48,553,009	(155,444)	(16,993,553)	31,559,456	237,397	56,645,407	
57	September-22	444,126		444,126	48,997,135	(155,444)	(17,148,997)	31,848,138	239,589	57,329,122	
58	October-22	444,126		444,126	49,441,261	(155,444)	(17,304,441)	32,136,819	241,780	58,015,029	
59	November-22	444,126		444,126	49,885,387	(155,444)	(17,459,885)	32,425,501	243,972	58,703,127	
59	Dec 1 - Dec 8, 2022	114,613		114,613	50,000,000	(40,115)	(17,500,000)	32,500,000	63,526	58,881,266	
60	Dec 9 - Dec 31, 2022		855,354	(855,354)		216,398	(17,283,602)	40,975,391		233,081	58,258,993
61	January-23		1,152,868	(1,152,868)		291,667	(16,991,935)	40,425,261		311,072	57,417,197
62	February-23		1,152,868	(1,152,868)		291,667	(16,700,269)	39,870,955		306,895	56,571,224
63	March-23		1,152,868	(1,152,868)		291,667	(16,408,602)	39,312,440		302,687	55,721,042
64	April-23		1,152,868	(1,152,868)		291,667	(16,116,935)	38,749,686		298,447	54,866,621

WACC 9.11%
 Monthly 0.7592%
 Monthly Payment \$1,152,868
 Retail Revenue Requirement \$13,834,418

Line	Month	Additions	Levelized Payment	Calculated Change in RA	Month End Reg Asset		Balance of Components		Carrying Charges on Principal net of ADIT only	Carrying Charges on Total Reg Asset net of ADIT	Month End Reg Asset Balance
					Balance Excl. CC	ADIT on RA	Subject to WACC	ADIT Balance			
65	May-23		1,152,868	(1,152,868)		291,667	(15,825,269)	38,182,659		294,175	54,007,928
66	June-23		1,152,868	(1,152,868)		291,667	(15,533,602)	37,611,328		289,870	53,144,930
67	July-23		1,152,868	(1,152,868)		291,667	(15,241,935)	37,035,659		285,533	52,277,594
68	August-23		1,152,868	(1,152,868)		291,667	(14,950,269)	36,455,620		281,162	51,405,888
69	September-23		1,152,868	(1,152,868)		291,667	(14,658,602)	35,871,177		276,759	50,529,779
70	October-23		1,152,868	(1,152,868)		291,667	(14,366,935)	35,282,298		272,322	49,649,233
71	November-23		1,152,868	(1,152,868)		291,667	(14,075,269)	34,688,948		267,851	48,764,216
72	December-23		1,152,868	(1,152,868)		291,667	(13,783,602)	34,091,093		263,347	47,874,695
73	January-24		1,152,868	(1,152,868)		291,667	(13,491,935)	33,488,700		258,808	46,980,635
74	February-24		1,152,868	(1,152,868)		291,667	(13,200,269)	32,881,733		254,235	46,082,002
75	March-24		1,152,868	(1,152,868)		291,667	(12,908,602)	32,270,159		249,627	45,178,761
76	April-24		1,152,868	(1,152,868)		291,667	(12,616,935)	31,653,942		244,984	44,270,877
77	May-24		1,152,868	(1,152,868)		291,667	(12,325,269)	31,033,046		240,306	43,358,315
78	June-24		1,152,868	(1,152,868)		291,667	(12,033,602)	30,407,438		235,593	42,441,040
79	July-24		1,152,868	(1,152,868)		291,667	(11,741,935)	29,777,079		230,843	41,519,015
80	August-24		1,152,868	(1,152,868)		291,667	(11,450,269)	29,141,935		226,058	40,592,204
81	September-24		1,152,868	(1,152,868)		291,667	(11,158,602)	28,501,970		221,236	39,660,572
82	October-24		1,152,868	(1,152,868)		291,667	(10,866,935)	27,857,146		216,377	38,724,081
83	November-24		1,152,868	(1,152,868)		291,667	(10,575,269)	27,207,426		211,482	37,782,695
84	December-24		1,152,868	(1,152,868)		291,667	(10,283,602)	26,552,775		206,550	36,836,377
85	January-25		1,152,868	(1,152,868)		291,667	(9,991,935)	25,893,153		201,580	35,885,088
86	February-25		1,152,868	(1,152,868)		291,667	(9,700,269)	25,228,524		196,572	34,928,793
87	March-25		1,152,868	(1,152,868)		291,667	(9,408,602)	24,558,849		191,527	33,967,451
88	April-25		1,152,868	(1,152,868)		291,667	(9,116,935)	23,884,090		186,443	33,001,025
89	May-25		1,152,868	(1,152,868)		291,667	(8,825,269)	23,204,208		181,320	32,029,477
90	June-25		1,152,868	(1,152,868)		291,667	(8,533,602)	22,519,166		176,159	31,052,768
91	July-25		1,152,868	(1,152,868)		291,667	(8,241,935)	21,828,922		170,958	30,070,858
92	August-25		1,152,868	(1,152,868)		291,667	(7,950,269)	21,133,439		165,718	29,083,707
93	September-25		1,152,868	(1,152,868)		291,667	(7,658,602)	20,432,675		160,438	28,091,277
94	October-25		1,152,868	(1,152,868)		291,667	(7,366,935)	19,726,592		155,118	27,093,527
95	November-25		1,152,868	(1,152,868)		291,667	(7,075,269)	19,015,148		149,758	26,090,417
96	December-25		1,152,868	(1,152,868)		291,667	(6,783,602)	18,298,303		144,357	25,081,905
97	January-26		1,152,868	(1,152,868)		291,667	(6,491,935)	17,576,016		138,915	24,067,952
98	February-26		1,152,868	(1,152,868)		291,667	(6,200,269)	16,848,246		133,431	23,048,515
99	March-26		1,152,868	(1,152,868)		291,667	(5,908,602)	16,114,951		127,906	22,023,553
100	April-26		1,152,868	(1,152,868)		291,667	(5,616,935)	15,376,089		122,339	20,993,024
101	May-26		1,152,868	(1,152,868)		291,667	(5,325,269)	14,631,617		116,730	19,956,886
102	June-26		1,152,868	(1,152,868)		291,667	(5,033,602)	13,881,494		111,078	18,915,096
103	July-26		1,152,868	(1,152,868)		291,667	(4,741,935)	13,125,676		105,384	17,867,612
104	August-26		1,152,868	(1,152,868)		291,667	(4,450,269)	12,364,121		99,646	16,814,389
105	September-26		1,152,868	(1,152,868)		291,667	(4,158,602)	11,596,783		93,864	15,755,386
106	October-26		1,152,868	(1,152,868)		291,667	(3,866,935)	10,823,621		88,039	14,690,556
107	November-26		1,152,868	(1,152,868)		291,667	(3,575,269)	10,044,589		82,169	13,619,858
108	December-26		1,152,868	(1,152,868)		291,667	(3,283,602)	9,259,642		76,255	12,543,245
109	January-27		1,152,868	(1,152,868)		291,667	(2,991,935)	8,468,737		70,296	11,460,673
110	February-27		1,152,868	(1,152,868)		291,667	(2,700,269)	7,671,827		64,292	10,372,096
111	March-27		1,152,868	(1,152,868)		291,667	(2,408,602)	6,868,868		58,242	9,277,470
112	April-27		1,152,868	(1,152,868)		291,667	(2,116,935)	6,059,813		52,146	8,176,748
113	May-27		1,152,868	(1,152,868)		291,667	(1,825,269)	5,244,615		46,004	7,069,884
114	June-27		1,152,868	(1,152,868)		291,667	(1,533,602)	4,423,229		39,815	5,956,831
115	July-27		1,152,868	(1,152,868)		291,667	(1,241,935)	3,595,607		33,580	4,837,543
116	August-27		1,152,868	(1,152,868)		291,667	(950,269)	2,761,702		27,297	3,711,971
117	September-27		1,152,868	(1,152,868)		291,667	(658,602)	1,921,467		20,966	2,580,069
118	October-27		1,152,868	(1,152,868)		291,667	(366,935)	1,074,853		14,587	1,441,788
119	November-27		1,152,868	(1,152,868)		291,667	(75,269)	221,811		8,160	297,080
120	Dec 1 - Dec 8, 2027		297,514	(297,514)		75,269	(0)	0		435	0
Totals		50,000,000	69,172,089	(19,172,089)		(0)			8,881,266	10,290,823	

Kentucky Power Company
 Exhibit 2 - Rockport
 SAMPLE ONLY

(1) Rockport Fixed Cost Savings

Amount of Rockport Fixed Cost in Base Rates \$ 11,111,111

(2) 2023 Rockport Offset Calculation

		Rockport Offset		
	<u>Calculation</u>	<u>Estimated</u>	<u>Actual</u>	<u>Source</u>
a	12 Month Net GAAP Income	\$ 97,000,000	\$ 97,100,000	Q4 2023 Per Books as Reported SEC Kentucky Power Company
b	13 Month Average Common Equity	\$ 1,000,000,000	\$ 1,000,000,000	Q4 2023 Per Books as Reported SEC Kentucky Power Company
c = a/b	Return on Common Equity	9.70%	9.71%	Calculation
d	Kentucky Power Allowed Retail ROE	9.75%	9.75%	Commission Order
	If D < C, Stop			
	If D > C, Continue to Part e			
e = (b*d)-a	Net GAAP Income Increase Required to Earn Allowed Retail ROE	\$ 500,000	\$ 400,000	Calculation
f	Gross Revenue Conversion Factor	1.64334	1.64334	Commission Order, or as updated in a future Commission proceeding
g = e*f	Rockport Offset	\$ 821,670	\$ 657,336	Calculation
= g	<u>Amount to Be Recovered Through Tariff PPA</u>	<u>\$ 821,670</u>		

(3) 2024 Rockport Offset True-up (Actual - Estimate) \$ (164,334)

Class Billing Determinants
XXXXX-Month Period ended XXXX
Workpaper

Tariff Summary For Review Period
<u>Billing Energy</u>

Class
(1)

RES	2,042,413,442
GS (SGS/MGS)	592,644,207
LGS	630,280,009
LGS LMTOD	1,930,735
IGS	2,242,555,474
MW	1,992,095
OL	43,044,440
SL	8,517,885
Total	5,563,378,287

KENTUCKY POWER COMPANY
Gross Revenue Conversion

LINE NO.	Component	Balances	Cap. Structure	Cost Rates		WACC (Net of Tax)	GRCF	WACC (PRE-TAX)
		As of 2/28/2017*						
1	L/T DEBT	\$648,913,758	53.45%	4.36%		2.33%	1.005425	2.34%
2	S/T DEBT	\$0	1.00%	1.25%		0.01%	1.005425	0.01%
3	ACCTS REC							
3	FINANCING	\$46,105,009	3.87%	1.95%		0.08%	1.005425	0.08%
4	C EQUITY	\$496,766,726	41.68%	9.75% **		4.06%	1.643341	6.67%
5	TOTAL	\$1,191,785,493	100.00%					9.11%

6	Operating Revenues	<u>Debt</u> 100.0000	<u>Equity</u> 100.0000
7	Less Uncollectible Accounts Expense	0.3400	0.3400
8	KPSC Maintenance Assessment Fee	0.1996	0.1996
9	Income Before Income Taxes	99.4604	99.4604
10	Less State Income Taxes (Ln 4 x 5.7348)		5.8425
11	Income Before Federal Income Taxes		93.6179
12	Less Federal Income Taxes (Ln 13*35%)		32.7663
13	Operating Income Percentage		60.8516
14	Gross Up Factor (100.00/Ln 9)	1.005425	1.6433