

KENTUCKY POWER COMPANY
Comparison of Current and Proposed Rates
Test Year Ended September 30, 2014
Case No.: 2014-00000

TARIFF	CURRENT RATES					PROPOSED RATES					
	Demand (2) \$/kW	Excess KVA/KVAR (3) \$/KVAR	Energy (5) c/kWh	Customer (6) \$/mo	Demand (7) \$/kW	Excess KVAR (9) \$/KVAR	Energy (11) c/kWh	% Change (10)	% Change (12)	Customer (13) \$/mo	% Change (14)
RS				8.00						16.00	100.0%
All kWh			8.590						5.2%		
Storage Water Htg. kWh			4.940						5.6%		
80 gallons			4.940						5.6%		
100 gallons			4.940						5.6%		
120 gallons			4.940						5.6%		
Load Management Water Heating			4.940						5.6%		
RS-LM-TOD				10.55					4.9%	18.70	77.3%
On-Peak			13.227						5.6%		
Off-Peak			4.940						0.0%		
Conservation and Load Management Credit			0.745								
Separate Metering				3.00						3.85	28.3%
RS-TOD				10.55					4.9%	18.70	77.3%
On-Peak			13.227						5.6%		
Off-Peak			4.940								
RS-TOD.2 (no customers)				11.45						18.70	63.3%
On-Peak - Summer			11.406						-4.6%		
On-Peak - Winter			13.829						-12.3%		
Off-Peak			7.390						12.4%		
SGS				11.50					-12.6%	19.50	69.6%
First 500 kWh			13.160						-0.8%		
Over 500 kWh			7.116								
SGS Non-Metered				7.50					-12.6%	15.50	106.7%
First 500 kWh			13.160						-0.8%		
Over 500 kWh			7.116								
SGS-LM-TOD				15.10					-10.3%	19.50	29.1%
On-Peak			15.326						5.6%		
Off-Peak			4.940								
SGS-EXP-TOD				14.95					-17.8%	19.50	30.4%
On-Peak - Summer			13.538						-22.7%		
On-Peak - Winter			15.553						-2.6%		
Off-Peak			8.700								

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	Demand			Energy			Excess			Customer		
	(2) \$/kW	(3) \$/kVAR	(5) c/kWh	(6) \$/mo	(7) \$/kW	(8) %	(9) \$/kVAR	(10) %	(11) c/kWh	(12) %	(13) \$/mo	(14) %
MGS												
Secondary	1.64		9.862	13.50	2.05	25.0%			10.072	2.1%	19.50	44.4%
kWh equal to 200 times Kw of mo. billing dem.			8.460						8.639	2.1%		
kWh in excess of 200 times kW of mo. billing dem.												
Primary	1.59		9.054	25.00	1.98	24.5%			9.245	2.1%	50.00	100.0%
kWh equal to 200 times Kw of mo. billing dem.			8.098						8.270	2.1%		
kWh in excess of 200 times kW of mo. billing dem.												
Subtransmission	1.55		8.361	182.00	1.96	26.5%			8.538	2.1%	364.00	100.0%
kWh equal to 200 times Kw of mo. billing dem.			7.851						8.018	2.1%		
kWh in excess of 200 times kW of mo. billing dem.												
Minimum Charge	6.84				8.55	25.0%						
MGS - Recreational Lighting			9.004	13.50					10.000	11.1%	19.50	44.4%
MGS-LM-TOD												
On-Peak			14.801	3.00					15.757	6.5%	3.85	28.3%
Off-Peak			5.130						5.491	7.0%		
MGS-TOD												
On-Peak			14.801	14.30					15.757	6.5%	19.50	36.4%
Off-Peak			5.130						5.491	7.0%		
LGS												
Secondary	4.02	3.46	7.795	85.00	5.03	25.1%	3.46	0.0%	8.056	3.3%	85.00	0.0%
Primary	3.89	3.46	6.514	127.50	4.89	25.7%	3.46	0.0%	6.851	5.2%	127.50	0.0%
Subtransmission	3.80	3.46	4.942	535.50	4.82	26.8%	3.46	0.0%	4.670	-5.5%	661.65	23.6%
Transmission	3.76	3.46	4.644	535.50	4.75	26.3%	3.46	0.0%	4.579	-1.4%	661.65	23.6%
LGS-LM-TOD												
On-Peak			12.971	81.80					13.421	3.5%	85.00	3.9%
Off-Peak			5.116						5.470	6.9%		

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LGS-TOD (no customers)												
<u>Secondary</u>												
On-Peak	7.64	3.46	9.778	85.00	10.20	3.46	8.481	85.00	33.5%	0.0%	-13.3%	0.0%
Off-Peak			4.116				4.533				10.1%	
<u>Primary</u>												
On-Peak	4.58	3.46	7.959	127.50	7.35	3.46	8.187	127.50	60.5%	0.0%	2.9%	0.0%
Off-Peak			3.965				4.411				11.2%	
<u>Subtransmission</u>												
On-Peak	0.24	3.46	7.729	535.50	1.08	3.46	8.098	661.65	350.0%	0.0%	4.8%	23.6%
Off-Peak			3.891				4.374				12.4%	
<u>Transmission</u>												
On-Peak	0.15	3.46	7.655	535.50	1.07	3.46	8.002	661.65	613.3%	0.0%	4.5%	23.6%
Off-Peak			3.854				4.334				12.5%	
QP												
<u>Secondary</u>												
On-Peak Billing Demand	18.51	0.69		276.00	20.69	0.69		276.00	11.8%	0.0%		0.0%
Off-Peak Excess Billing Demand	8.65				1.13							
Off-Peak Billing Demand					22.06							
Minimum Demand												
All kWh			3.285				3.398				3.4%	
<u>Primary</u>												
On-Peak Billing Demand	15.00	0.69		276.00	17.46	0.69		276.00	16.4%	0.0%		0.0%
Off-Peak Excess Billing Demand	5.56				1.10							
Off-Peak Billing Demand					18.80							
Minimum Demand												
All kWh			3.233				3.279				1.4%	
<u>Subtransmission</u>												
On-Peak Billing Demand	10.13	0.69		662.00	10.74	0.69		794.00	6.0%	0.0%		19.9%
Off-Peak Excess Billing Demand	1.20				1.08							
Off-Peak Billing Demand					12.07							
Minimum Demand												
All kWh			3.201				3.242				1.3%	
<u>Transmission</u>												
On-Peak Billing Demand	9.00	0.69		1,353.00	10.45	0.69		1,353.00	16.1%	0.0%		0.0%
Off-Peak Excess Billing Demand	1.10				1.07							
Off-Peak Billing Demand					11.76							
Minimum Demand												

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<u>TARIFF</u>	<u>CURRENT RATES</u>				<u>PROPOSED RATES</u>			
	Demand	Excess KVA/KVAR	Energy	Customer	Demand	Excess KVAR	Energy	Customer
	(2)	(3)	(5)	(6)	(7)	(9)	(11)	(13)
	\$/kW	\$/KVAR	c/kWh	\$/mo	\$/kW	\$/KVAR	c/kWh	\$/mo
					(8)	(10)	(12)	(14)
					% Change	% Change	% Change	% Change
All kWh			3.176				3.204	0.9%

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Case No.: 2014-00000

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	Demand (2) \$/kW	Excess KVA/KVAR (3) \$/kVAR	Energy (5) c/kWh	Customer (6) \$/mo	Demand (7) \$/kW	Excess KVAR (9) \$/kVAR	Energy (11) c/kWh	Customer (13) \$/mo	% Change (8)	% Change (10)	% Change (12)	% Change (14)
CIP-TOD												
Primary	16.77	0.69	2.962	276.00	17.46	0.69	3.279	276.00	4.1%	0.0%	10.7%	0.0%
On-Peak Billing Demand	5.56				1.10				-80.2%			
Off-Peak Billing Demand												
Subtransmission												
On-Peak Billing Demand	12.06	0.69	2.906	794.00	10.74	0.69	3.242	794.00	-10.9%	0.0%	11.6%	0.0%
Off-Peak Billing Demand	1.20				1.08				-10.0%			
Transmission												
On-Peak Billing Demand	10.98	0.69	2.880	1,353.00	10.45	0.69	3.204	1,353.00	-4.8%	0.0%	11.3%	0.0%
Off-Peak Billing Demand	1.10				1.07				-2.7%			
Minimum Demand Charge												
Primary	16.88				18.80				11.4%			
Subtransmission	12.17				12.07				-0.8%			
Transmission	11.09				11.76				6.0%			
MW												
All kWh			8.300	22.90	8.20		8.601	22.90	100.0%		3.6%	0.0%
Minimum Charge	4.10											

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	Demand (2) \$/kW	Excess KVA/KVAR (3) \$/kVAR	Energy (5) c/kWh	Customer (6) \$/mo	Demand % Change (7) \$/kW	Excess KVAR (9) \$/kVAR	Energy % Change (10) c/kWh	Customer % Change (11) \$/mo	% Change (12)	% Change (14)
OL										
High Pressure Sodium										
100 Watt (094)				8.75	per lamp / mth			9.65		10.3%
150 Watt (113)				9.90	per lamp / mth			10.95		10.6%
200 Watt (097)				12.20	per lamp / mth			13.45		10.2%
250 Watt (103)				13.35	per lamp / mth			18.10		35.6%
400 Watt (098)				19.15	per lamp / mth			21.05		9.9%
100 Watt Shoebox (121)				20.00	per lamp / mth			33.50		67.5%
250 Watt Shoebox (120)				24.00	per lamp / mth			50.05		108.5%
400 Watt Shoebox (126)				27.90	per lamp / mth			44.10		58.1%
Mercury Vapor										
175 Watt (093)				9.75	per lamp / mth			10.75		10.3%
400 Watt (095)				16.85	per lamp / mth			18.60		10.4%
Post Top										
100 Watt HPS (111)				13.10	per lamp / mth			14.45		10.3%
150 Watt HPS (122)				21.45	per lamp / mth			23.70		10.5%
175 Watt MV (099)				11.20	per lamp / mth			12.30		9.8%
Floodlights										
200 Watt HPS (107)				13.60	per lamp / mth			15.00		10.3%
400 Watt HPS (109)				18.85	per lamp / mth			20.80		10.3%
250 Watt MH (110)				18.20	per lamp / mth			20.10		10.4%
400 Watt MH (116)				24.10	per lamp / mth			26.60		10.4%
1000 Watt MH (131)				52.20	per lamp / mth			67.35		29.0%
250 Watt MH - Mongoose (130)				21.80	per lamp / mth			25.30		16.1%
400 Watt MH - Mongoose (136)				25.50	per lamp / mth			30.30		18.8%
Wood Pole										
Overhead Span				2.85	per pole / mth			3.15		10.5%
Underground Lateral				1.60	per span / mth			1.75		9.4%
				6.25	per lateral / mth			6.90		10.4%

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SL											
<u>Overhead Service on Existing Distribution Poles</u>											
100 Watt HPS				7.25						8.05	11.0%
150 Watt HPS				8.30						9.25	11.4%
200 Watt HPS				10.30						11.45	11.2%
400 Watt HPS				16.05						17.80	10.9%
<u>Service on New Wood Distribution Poles</u>											
100 Watt HPS				10.25						11.35	10.7%
150 Watt HPS				11.40						12.60	10.5%
200 Watt HPS				13.15						14.60	11.0%
400 Watt HPS				18.45						20.45	10.8%
<u>Service on New Metal or Concrete Poles</u>											
100 Watt HPS				18.90						20.95	10.8%
150 Watt HPS				19.85						22.00	10.8%
200 Watt HPS				25.25						28.00	10.9%
400 Watt HPS				27.45						30.45	10.9%

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CATV											
Charge for attachments on a two-user pole				7.21						7.21	0.0%
Charge for attachments on a three-user pole				4.47						4.47	0.0%
COGEN / SPP I & II											
Standard Measurement				6.75						8.50	25.9%
				7.75						11.10	43.2%
				7.15						9.05	26.6%
				8.10						11.40	40.7%
Energy Credit											
Standard Meter			2.90					3.79			30.7%
TOD Meter			3.06					4.64			51.6%
On-Peak KWH			2.78					3.18			14.4%
Off-Peak KWH											
Capacity Credit											
Standard Energy Meter	2.84				3.70						
TOD Energy Meter	6.82				8.87						
NUG											
Subtransmission	3.65	0.69			0.00					0.00	-100.0%
Transmission	2.30	0.69			0.00					0.00	-100.0%
AFS											
Primary	4.34				6.25						
Transfer Switch Maintenance				13.57						14.25	

KENTUCKY POWER COMPANY
 RS Rate Design
 Twelve Months Ended September 30, 2014

I. Proposed Revenue

	Billed & Accrued Revenue	Fuel Revenue	Base Revenue	Less: HEAP Revenue	Plus: Employee Discount	Adjusted Base Revenue
Total RS Revenue Requirement						
Demand	145,537,418	\$0	\$145,537,418	\$156,954	\$38,623	\$145,419,087
Energy	77,357,442	4,613,241	72,744,201	\$78,450	19,305	\$72,685,056
Customer	12,648,538	0	12,648,538	\$13,641	3,356	\$12,638,253
Total	\$235,543,398	\$4,613,241	\$230,930,157	\$249,045	\$61,284	\$230,742,396

II. Customer Charge

	Proposed Customer Charge	=	\$16.00 /mo.
Proposed Customer Charge Revenue	1,660,309	x	\$16.00 = \$26,564,944

III. Off-Peak Energy Charge

Energy Revenue Requirement	\$72,685,056
Total Energy (kWh)	2,260,149,745
Total Secondary Energy Charge	\$0.03216 /kWh
Fixed Cost Adder	\$0.02000 /kWh
Proposed Off-Peak Energy Charge	\$0.05216 /kWh
Off-Peak % Usage	55.93%
Off-Peak kWh Energy	1,264,101,752
Off-Peak Revenue	1,264,101,752 x \$0.05216 = \$65,935,547

IV. On-Peak Energy Charge

Total RS Base Revenue	\$230,742,396
Less: Customer Revenue	26,564,944
Less: Off-Peak Energy Revenue	65,935,547
On-Peak Revenue	\$138,241,905
Total RS Energy	2,260,149,745
Less: Off-Peak kWh Energy	1,264,101,752
On-Peak kWh Energy	996,047,993
Proposed On-Peak Energy Charge	\$0.13879 /kWh

V. Revenue Verification

	Units	Rate	Revenue	Difference
On-Peak	996,047,993 kWh	\$0.13879 /kWh	\$138,241,501	
Off-Peak	1,264,101,752 kWh	\$0.05216 /kWh	65,935,547	
Customer	1,660,309 Bills	\$16.00 /Mo.	26,564,944	
Total	2,260,149,745 kWh		\$230,741,992	(404)

KENTUCKY POWER COMPANY
 RS Rate Design
 Twelve Months Ended September 30, 2014

VI. Time-of-Day Customer Charges

Current TOD Charge	\$10.55		
Proposed Standard Charge	\$16.00	Separate Meter Charge	
Actual Differential:			
TOD Meter Cost	\$362.34		\$362.34
Standard Meter Cost	\$106.69		
Cost Differential	\$255.65		\$362.34
Carrying Cost Over 12 Months Differential	12.71% 12 \$2.71	12.71% 12 \$3.84	30 Year Annual Investment CC
Proposed RS-TOD/RS-LM-TOD/ RS TOD 2	\$18.70		\$3.85

Separate Meter Customer Charge:

Current	\$3.00
Use:	\$3.85

VII. RS-TOD / RS-LM-TOD Proposed Revenue

	Units	Rate	Revenue
On-Peak	1,495,474 kWh	\$0.13879 /kWh	\$207,557
Off-Peak	2,776,773 kWh	\$0.05216 /kWh	144,836
Customer - Std TOD	1,993 Bills	\$18.70 /Mo.	37,269
Customer - Sep Meter	107 Bills	\$3.85 /Mo.	412
Total	4,272,247 kWh		\$390,074

VIII. Customer Revenue

Customer Charge Revenue	1,658,209	Bills	x	\$16.00 /mo.	=	\$26,531,344
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IX. Standard Energy Rates

Storage Water Heating Revenue	261,119	kWh	x	\$0.05216 /kWh (Off-Pk)	=	\$13,620
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Adjusted Base Revenue	230,742,396
Less RS-TOD/RS-LM-TOD Revenue	\$390,074
Less: Customer Revenue	26,531,344
Less: Storage Water Htg Revenue	13,620

Energy Charge Revenue - All Blocks All kWh	\$203,807,358 2,255,616,379
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Standard Energy Rate - All kWh \$0.09036 /kWh

X. RS Revenue Verification

	Units	Rate	Revenue	Difference
All Standard kWh	2,255,616,379 kWh	\$0.09035 /kWh*	203,794,940	
Storage Water Heating	261,119 kWh	\$0.05216 /kWh	13,620	
Customer	1,658,209 Bills	\$16.00 /mo.	26,531,344	
Total	2,255,877,498 kWh		\$230,339,904	(12,418)

*Revised after revenue verification

KENTUCKY POWER COMPANY
 RS Rate Design
 Twelve Months Ended September 30, 2014

XI. Employee Customer Charges

Use: Current level of Employee Discount

	Current Employee Discount Amount	Proposed Non-Employee Customer Charge	Proposed Employee Discount Amount	Proposed Employee Customer Charge
Standard Employee - Full Discount	\$8.00	\$16.00	\$8.00	\$8.00
Standard Employee - 1/2 Discount	\$4.00		\$4.00	\$12.00
Time-of-Day Employee	\$10.80	\$18.70	\$10.80	\$7.90

XII. Revenue Verification - Employee

<u>Billed on Employee Rates:</u>	Units	Rate	Revenue	
All Standard kWh	9,237,612 kWh	\$0.09035 /kWh	\$834,618	
Customer - Full	6,791 Bills	\$8.00 /mo.	54,328	
Customer - Half	1,288 Bills	\$12.00 /mo.	15,456	
Storage Water Heating	1,069 kWh	\$0.05216 /kWh	<u>56</u>	
Total	9,238,681 kWh		\$904,458	
Time of Day:				
On-Peak kWh	119,747 kWh	\$0.13879 /kWh	\$16,620	
Off-Peak kWh	222,162 kWh	\$0.05216 /kWh	11,588	
Customer	167 Bills	\$7.90 /mo.	<u>1,319</u>	
Total	341,909 kWh		\$29,527	
Total Employee	\$904,458	+	\$29,527 =	\$933,985

XIII. Revenue Verification - Employee Discount

<u>Billed on Standard Rates:</u>	Units	Rate	Revenue	
All Standard kWh	9,237,612 kWh	\$0.09035 /kWh	834,618	
Customer - Full	6,791 Bills	\$16.00 /mo.	108,656	
Customer - Half	1,288 Bills	\$16.00 /mo.	20,608	
Storage Water Heating	1,069 kWh	\$0.05216 /kWh	<u>56</u>	
Total	9,238,681 kWh		\$963,938	
Time of Day:				
On-Peak kWh	119,747 kWh	\$0.13879 /kWh	\$16,620	
Off-Peak kWh	222,162 kWh	\$0.05216 /kWh	11,588	
Customer	167 Bills	\$18.70 /mo.	<u>3,123</u>	
Total	341,909 kWh		\$31,331	
Total Employee	\$963,938	+	\$31,331 =	\$995,269
Total Employee Discount:	\$995,269	-	\$933,985 =	\$61,284

KENTUCKY POWER COMPANY
RS Rate Design
Twelve Months Ended September 30, 2014

XIV. Residential Summary

Schedule	Bills	kWh	Revenue	Difference
RS	1,658,209	2,255,877,498	\$230,339,904	
RS-TOD / RS LMTOD	2,100	4,272,247	390,074	
HEAP Revenue			249,045	
Employee Discount			(61,284)	
<hr/>				
Total Billed	1,660,309	2,260,149,745	\$230,917,739	(\$12,418)

KENTUCKY POWER COMPANY
 Experimental RS-TOD 2 Rate Design
 Twelve Months Ended, September 30, 2014
 Rate Design

I. Proposed Revenue

	<u>Total</u> (1)	<u>Production</u> (2)	<u>All Other</u> (3) = (1) - (2)
Demand	\$145,537,418	\$76,396,686	\$69,140,732
Energy	\$77,357,442	\$77,357,442	\$0
Customer	\$12,648,538	\$0	\$12,648,538
Total	\$235,543,398	\$153,754,128	\$81,789,270

III. Basic Energy Charge Rate Design

All Other Revenue	\$81,789,270
Less: Customer Charge Revenue - STD	\$26,531,344
Customer Charge Revenue - TOD	\$37,681
HEAP Revenue	\$249,045
Add: Employee Discount Revenue	\$61,284
Basic Energy Revenue	\$55,032,484
Total kWh	2,260,149,747
Basic Energy Charge	\$0.024349

IV. Variable Energy Charge Rate Design

	<u>Market Generation (Excluding Losses)</u>				<u>kWh</u> (5)	<u>Variable Energy Charge</u> (6) = (4) / (5)
	<u>RT LMP</u> (1)	<u>Capacity</u> (2)	<u>Total</u> (3) = (1) + (2)	<u>Production Charge</u> (4) on (3)		
Summer	6,577,274	5,572,850	12,150,124	\$13,781,388	159,242,131	\$0.086544
Winter	17,848,847	10,156,777	28,005,624	\$31,765,634	320,817,153	\$0.099015
Other	91,310,457	4,088,474	95,398,931	\$108,207,106	1,780,090,463	\$0.060787
	115,736,578	19,818,101	135,554,679	\$153,754,128	2,260,149,747	
			Percentage:	113.43%		

V. Energy Base Rate Total

	<u>Basic Energy Charge</u> (1)	<u>Variable Energy Charge</u> (2)	<u>Subtotal</u> (3) = (1) + (2)	<u>Fuel Adjustment</u> (4)	<u>Base Rate</u> (5) = (3) - (4)
Summer	\$0.024349	\$0.086544	\$0.110893	\$0.0020411	\$0.10885
Winter	\$0.024349	\$0.099015	\$0.123364	\$0.0020411	\$0.12132
Other	\$0.024349	\$0.060787	\$0.085136	\$0.0020411	\$0.08309

VI. Revenue Verification

	<u>Units</u> (1)	<u>Rate</u> (2)	<u>Revenue</u> (3) = (1) x (2)		
Customer Charge - STD	1,658,209 Bills	\$16.00	\$26,531,344		
Customer Charge - TOD	1,993 Bills	\$18.70	\$37,269		
Customer Charge - TOD - Sep Meter	107 Bills	\$3.85	\$412		
Summer	159,242,131 kWh	\$0.10885	\$17,333,506		
Winter	320,817,153 kWh	\$0.12132	\$38,921,537		
Other	1,780,090,463 kWh	\$0.08309	\$147,907,717		
Fuel	2,260,149,747 kWh	\$0.0020411	\$4,613,192		
HEAP Revenue			\$249,045		
Employee Discount			(\$61,284)		
			<u>\$235,532,738</u>	\$235,543,398	(\$10,660)

* Revised after revenue verification

KENTUCKY POWER COMPANY
 Experimental RS-TOD 2 Rate Design
 Twelve Months Ended September 30, 2014
 Calculation of Market Capacity

Summer 2014 RTO 5CP		(Load Research RS Expanded kW)
Date	Hour	kW
6/17/2014	1800	380,306
6/18/2014	1700	329,885
7/1/2014	1800	494,352
9/5/2014	1600	344,658
7/22/2014	1800	500,898
		2,050,099
Average MW		410.020
365 Days		365
Average RPM Clearing Price		\$132.42
Total Capacity		\$19,818,101

PJM PY	RPM Reserve Margin Cleared (%)	RPM BRA Clearing (\$/MW-day)	Weighted Avg Clearing Price (\$/MW-day)
(a)	(b)	(c)	(d)
2014/2015	19.60%	\$125.99	\$150.68
2015/2016	20.20%	\$136.00	\$163.47
2016/2017	21.10%	\$59.37	\$71.90
2017/2018	19.70%	\$120.00	\$143.64
Average	20.15%	\$ 110.34	\$ 132.42
Average			\$ 132.42

Allocation of Capacity Charge between Summer Peak and All Other Hours
 (Load Research RS NCP)

	Monthly Peak	Summer	Winter	Other
October	400,735			400,735
November	523,906		523,906	
December	680,304		680,304	
January	696,199		696,199	
February	627,382		627,382	
March	708,599		708,599	
April	493,967			493,967
May	396,254	198,127		198,127 *
June	382,392	382,392		
July	531,875	531,875		
August	453,422	453,422		
September	419,874	209,937		209,937 *
	6,314,909	1,775,753	3,236,390	1,302,766
	100.00%	28.12%	51.25%	20.63%
Capacity	\$19,818,101	5,572,849.86	10,156,776.51	4,088,474.13

* 50% in Summer, 50% in Other

KENTUCKY POWER COMPANY
 SGS Rate Design
 Twelve Months Ended September 30, 2014

I. <u>Proposed Revenue</u>	Billed & Accrued Revenue	Fuel Revenue	Billed & Accrued Revenue Excld Fuel	Less: SGS TOD/LMTOD	Base Revenue
Demand	\$9,846,777	\$0	\$9,846,777	\$27,119	\$9,819,658
Energy	5,219,426	290,984	\$4,928,442	13,573	4,914,869
Customer	3,762,175	0	\$3,762,175	10,361	3,751,814
Total	\$18,828,378	\$290,984	\$18,537,394	\$51,053	\$18,486,341

II. Non-Metered Customer Charge

Meter Plant (370)	\$6,117,105	Customer Base Revenue	\$3,751,814
Net Plant/Gross Plant Percentage	67.91%	Less: Meter Plant Revenue	983,196
Depreciated Meter Plant	4,154,126	Meter O&M Expense (586 & 597)	232,834
Return on Rate Base	14.43%	Meter Reading Expense (902)	74,853
Income	599,440	Adj. Customer Revenue	2,460,931
GRCF	1,640,190	/ Bills	289,172
Meter Plant Revenue	983,196	Proposed Non-Metered Customer Charge	8.51
		Current	\$ 7.50
		Use:	\$15.50 USE: +8.00 RS Adder

III. Standard Customer Charge

Customer Revenue	\$3,751,814				
Less: Non-Metered Customer Rev.	272,707				
Residual Customer Revenue	\$3,479,107 /	271,566 Bills	=	\$12.81 /mo.	
		Current	=	\$11.50 /mo.	
		Use:		\$19.50 /mo. USE: +8.00 RS Adder	
Standard	\$19.50	x	271,566 Bills	=	\$5,295,537
Non-Metered	\$15.50	x	17,594 Bills	=	\$272,707

IV. Energy Charges

	Current Rate
First 500 kWh Charge	0.13160
Over 500 kWh Charge	0.07116
Block Differential	0.0604
Less Customer Charge Increase	0.0160
Proposed Differential	0.0444
First 500 kWh	64,894,206
Block Differential Revenue	2,883,899
Revenue Requirement	\$18,486,341
Less: Standard Customer Revenue	5,295,537
Less: Non-Metered Customer Revenue	272,707
Less: Block Differential Revenue	2,883,899
	\$10,034,198
Over 500 kWh Charge	\$10,034,198 /
Block Differential	142,192,376 =
First 500 kWh Charge	\$0.07057
	\$0.04444
	\$0.11501

V. Revenue Verification

	Units	Rate	Revenue	Difference
Energy - First 500 kWh	64,894,206 kWh	\$0.11500 /kWh*	\$7,462,834	
- Over 500 kWh	77,298,170 kWh	\$0.07057 /kWh	\$5,454,932	
Standard Customer	271,566 Bills	\$19.50 /mo	5,295,537	
Non-Metered Customer	17,594 Bills	\$15.50 /mo	272,707	
Total Base Revenue			\$18,486,010	(\$331)

KENTUCKY POWER COMPANY
 SGS Rate Design
 Twelve Months Ended September 30, 2014

VI. Off-Peak Energy Charge

Energy Revenue Requirement	\$4,914,869 / 142,195,388 kwh	\$0.03456
Fixed Cost Adder		<u>0.02000</u>
Calculated Off-Peak Energy Charge		\$0.05456
Use: Proposed Residential Off-Peak Energy Charge		<u>\$0.05216</u>
Off-Peak % Usage		<u>54.70%</u>
Off-Peak kWh		77,780,877
Off-Peak Revenue		\$4,057,051

VII. On-Peak Energy Charge

Total SGS Base Revenue	\$18,486,341
Less: Standard Customer Revenue	5,295,537
Non-Metered Customer Revenue	272,707
Time-of-Day Customer Revenue	234
Time-of-Day Off-Peak Revenue	<u>4,057,051</u>
On-Peak Revenue	\$8,860,812
On-Peak kWh Energy	<u>64,414,511</u>
Proposed On-Peak Energy Charge	\$0.13756 /kWh

VIII. Revenue Verification

	<u>Units</u>	<u>Rate</u>	<u>Revenue</u>	<u>Difference</u>
On-Peak	64,414,511 kWh	\$0.13755 *	\$8,860,216	
Off-Peak	77,780,877 kWh	\$0.05216	4,057,051	
Standard Customer	271,566 Bills	\$19.50	5,295,537	
Non-Metered Customer	17,594 Bills	\$15.50	272,707	
Time-of-Day Customer Charge	12 Bills	\$19.50	234	
Total Base Revenue			\$18,485,745	(\$596)

*Revised after revenue verification.

IX. Revenue From Existing TOD Customers

	<u>Units</u>	<u>Rate</u>	<u>Proposed Revenue</u>
SGS-LM TOD			
On-Peak Energy	1,456	\$0.13755	200
Off-Peak Energy	1,556	\$0.05216	81
Customer	12	<u>\$19.50</u>	<u>234</u>
Total			\$515

KENTUCKY POWER COMPANY
 Experimental SGS-TOD Rate Design
 Twelve Months Ended, September 30, 2014
 Rate Design

I. Proposed Revenue

	<u>Total</u> (1)	<u>Production</u> (2)	<u>All Other</u> (3) = (1) - (2)
Demand	\$9,846,777	\$4,567,088	\$5,279,689
Energy	5,219,426	\$5,219,426	\$0
Customer	3,762,175	\$0	\$3,762,175
Total	\$18,828,378	\$9,786,514	\$9,041,864

II. Incremental Meter Charge Rate Design

Annual Incremental Meter Charge	Months	Incremental Carrying Charge	Incremental Customer Charge	Plus Standard	Proposed Customer Charge
\$0.00	12	12.71%	\$0.00	\$19.50	\$19.50

III. Basic Energy Charge Rate Design

All Other Revenue	\$9,041,864
Less: Customer Charge Revenue - STD	\$5,295,537
Customer Charge Revenue - TOD	\$234
Customer Charge Revenue - NM	\$272,707
Basic Energy Charge	\$3,473,386
 Total kWh	 142,560,729
Basic Energy Charge	\$0.024364

IV. Variable Energy Charge Rate Design

	<u>Market Generation (Excl. Losses)</u>		<u>Total</u> (3) = (1) + (2)	<u>Production Charge</u> (4) on (3)	<u>kWh</u> (5)	<u>Variable Energy Charge</u> (6) = (4) / (5)
	<u>RT LMP</u> (1)	<u>Capacity</u> (2)				
Summer	395,982	295,545	691,527	\$861,082	9,682,035	\$0.088936
Winter	943,306	450,881	1,394,188	\$1,736,026	17,737,014	\$0.097876
Other	5,574,733	199,016	5,773,749	\$7,189,406	115,141,680	\$0.062440
	6,914,022	945,442	7,859,464	\$9,786,514	142,560,729	
			Percentage:	124.52%		

V. Energy Base Rate Total

	<u>Basic Energy Charge</u> (1)	<u>Variable Energy Charge</u> (2)	<u>Subtotal</u> (3) = (1) + (2)	<u>Fuel Adjustment</u> (4)	<u>Base Rate</u> (5) = (3) - (4)
Summer	\$0.024364	\$0.088936	\$0.113300	\$0.0020411	\$0.11126
Winter	\$0.024364	\$0.097876	\$0.122240	\$0.0020411	\$0.12020
Other	\$0.024364	\$0.062440	\$0.086804	\$0.0020411	\$0.08476

VI. Revenue Verification

	<u>Units</u> (1)	<u>Rate</u> (2)	<u>Billing</u> (3) = (1) x (2)		
Customer Charge - STD	271,566 Bills	\$19.50	\$5,295,537		
Customer Charge - TOD	12 Bills	\$19.50	\$234		
Customer Charge - NM	17,594 Bills	\$15.50	\$272,707		
Summer	9,682,035 kWh	\$0.11126	\$1,077,223		
Winter	17,737,014 kWh	\$0.12020	\$2,131,989		
Other	115,141,680 kWh	\$0.08476	\$9,759,409		
Fuel	142,560,729 kWh	\$0.0020411	\$290,981		
			\$18,828,080	\$18,828,378	(\$298)

* Revised after revenue verification

VII. Revenue From Existing SGS-TOD Customers

	<u>Units</u>	<u>Rate</u>	<u>Billing</u>
SGS-TOD			
Summer	23,647	\$0.11126	\$2,631
Winter	32,745	\$0.12020	\$3,936
Other	308,952	\$0.08476	\$26,187
Customer	912	\$19.50	\$17,784
Total			\$50,538

KENTUCKY POWER COMPANY
 Experimental SGS-TOD Rate Design
 Twelve Months Ended September 30, 2014
 Calculation of Market Capacity

Summer 2012 RTO 5CP		(Load Research SGS Expanded kW)
Date	Hour	kW
6/17/2014	1800	19,209
6/18/2014	1700	19,763
7/1/2014	1800	20,725
9/5/2014	1600	18,138
7/22/2014	1800	19,967
		97,802
Average MW		19.560
365 Days		365
Average RPM Clearing Price		\$132.42
Total Capacity		\$945,442

12.71%

PJM PY	RPM Reserve Margin Cleared (%)	RPM BRA Clearing (\$/MW-day)	Weighted Avg Clearing Price (\$/MW-day)
(a)	(b)	(c)	(d)
2014/2015	19.60%	\$125.99	\$150.68
2015/2016	20.20%	\$136.00	\$163.47
2016/2017	21.10%	\$59.37	\$71.90
2017/2018	19.70%	\$120.00	\$143.64
Average	20.15%	\$ 110.34	\$ 132.42
Average			\$ 132.42

Allocation of Capacity Charge between Summer Peak and All Other Hours
 (Load Research SGS NCP)

	Monthly Peak	Summer	Winter	Other
October	20,296			20,296
November	23,073		23,073	
December	22,940		22,940	
January	34,465		34,465	
February	26,675		26,675	
March	29,578		29,578	
April	18,298			18,298
May	22,506	11,253		11,253 *
June	21,256	21,256		
July	24,384	24,384		
August	22,230	22,230		
September	20,990	10,495		10,495 *
	286,691	89,618	136,731	60,342
	100.00%	31.26%	47.69%	21.05%
Capacity	\$945,442	295,545.19	450,881.33	199,015.56

* 50% in Summer, 50% in Other

KENTUCKY POWER COMPANY
MGS Rate Design
Twelve Months Ended March 31, 2013

I. Proposed Revenue

	<u>Billed & Accrued Revenue</u>	<u>Fuel Revenue</u>	<u>Base Revenue</u>
<u>Secondary</u>			
Demand	\$35,423,533	\$0	\$35,423,533
Energy	18,595,169	1,027,253	17,567,916
Customer	1,207,832	0	1,207,832
Total	\$55,226,534	\$1,027,253	\$54,199,281
Secondary TOD	\$382,901	\$7,892	\$375,009
Secondary LM-TOD	\$105,841	\$2,153	\$103,688
Secondary RL	\$177,523	\$3,191	\$174,332
<u>Secondary - Excl. TOD, LM-TOD, and RL</u>			
Demand	\$34,996,176	\$0	\$34,996,176
Energy	18,370,833	1,014,017	17,356,816
Customer	1,193,260	0	1,193,260
Total	\$54,560,269	\$1,014,017	\$53,546,252
<u>Primary</u>			
Demand	\$453,654	\$0	\$453,654
Energy	322,514	19,099	303,415
Customer	279,319	0	279,319
Total	\$1,055,487	\$19,099	\$1,036,388
<u>Subtransmission</u>			
Demand	\$24,739	\$0	\$24,739
Energy	33,939	2,057	31,882
Customer	66,080	0	66,080
Total	\$124,758	\$2,057	\$122,701
<u>Total MGS - Excl. TOD, LM-TOD, RL</u>			
Demand	\$35,474,569	\$0	\$35,474,569
Energy	18,727,286	1,035,173	17,692,113
Customer	1,538,659	0	1,538,659
Total	\$55,740,514	\$1,035,173	\$54,705,341

II. Billing Determinant Summary

	<u>Secondary</u>	<u>Primary</u>	<u>Subtransmission</u>
Standard Billing Demand	2,076,023	38,082	2,508
Mining Minimum Billing Demand	0	2,671	314
First 200 kWh per kW	333,938,968	5,716,583	385,067
Over 200 kWh per kW	162,854,869	3,592,839	619,468
Bills	84,018	1,009	119

III. Proposed Customer Charges and Revenue

<u>Proposed Customer Charge</u>	<u>Customer Revenue</u>	<u>Bills</u>	<u>Full Cost Rate</u>	<u>Current Rate</u>	<u>Proposed Rate*</u>
Secondary	\$1,193,260	84,018	\$14.20	\$13.50	\$19.50 *
Primary	279,319	1,009	276.83	\$25.00	\$50.00
Subtransmission	66,080	119	555.29	\$182.00	\$364.00
Total	\$1,538,659	85,146			

*Secondary same as SGS Standard. Primary and SubTran two times current.

<u>Proposed Customer Revenue</u>	<u>Proposed Rate</u>	<u>Bills</u>	<u>Customer Revenue</u>
Secondary	\$19.50	84,018	\$1,638,351
Primary	\$50.00	1,009	50,450
Subtransmission	\$364.00	119	43,316
Total		85,146	\$1,732,117

KENTUCKY POWER COMPANY
MGS Rate Design
Twelve Months Ended March 31, 2013

IV. Proposed Demand Charges and Revenue

Proposed Demand Charge

	<u>Current Rate</u>	<u>25.00% Increase</u>	<u>Revised Proposed Rate</u>
Standard Demand	\$1.64	\$0.41	\$2.05
Mining Minimum Demand	\$6.84	\$1.71	\$8.55

	<u>Secondary Rate</u>	<u>Loss Factor</u>	<u>Proposed Rate</u>
Standard Demand			
Secondary	\$2.05	1.000	\$2.05
Primary	\$2.05	0.971	\$1.99
Subtransmission	\$2.05	0.958	\$1.96

Proposed Demand Revenue

	<u>Revised Proposed Rate</u>	<u>Units</u>	<u>Demand Revenue</u>
Secondary			
Standard Demand	\$2.05	2,076,023	\$4,255,847
Mining Minimum Demand	\$8.55	0	\$0
Primary			
Standard Demand	\$1.99	38,082	\$75,783
Mining Minimum Demand	\$8.55	2,671	\$22,837
Subtransmission			
Standard Demand	\$1.96	2,508	\$4,916
Mining Minimum Demand	\$8.55	314	\$2,685
			\$4,362,068

V. Proposed Energy Charges and Revenue

Total Base Revenue	\$54,705,341
Less: Customer Revenue	\$1,732,117
Demand Revenue	\$4,362,068
Proposed Energy Revenue	\$48,611,156

Proposed Energy Charges

	<u>Units</u>	<u>Current Charges</u>	<u>Current Energy Revenue</u>	<u>Proposed Energy Revenue</u>	<u>Proposed Charges</u>
<u>Secondary</u>					
<= 200 x Demand	333,938,968	\$0.09862	\$32,933,061	\$33,632,694	\$0.10072
> 200 x Demand	162,854,869	\$0.08460	\$13,777,522	\$14,070,213	\$0.08640
<u>Primary</u>					
<= 200 x Demand	5,716,583	\$0.09054	\$517,579	\$528,574	\$0.09246
> 200 x Demand	3,592,839	\$0.08098	\$290,948	\$297,129	\$0.08270
<u>Subtransmission</u>					
<= 200 x Demand	385,067	\$0.08361	\$32,195	\$32,879	\$0.08539
> 200 x Demand	619,468	\$0.07851	\$48,634	\$49,667	\$0.08018
Total Energy Revenue			\$47,599,939	\$48,611,156	

KENTUCKY POWER COMPANY
 MGS Rate Design
 Twelve Months Ended March 31, 2013

VI. Revenue Verification

	<u>Units</u>	<u>Rate</u>	<u>Revenue</u>	<u>Target Revenue</u>	<u>Difference</u>
<u>Secondary</u>					
Demand - Standard	2,076,023 kW	\$2.05 /kW	\$4,255,847		
- Minimum	0 kW	\$8.55 /kW	\$0		
Energy - <= 200 x Demand	333,938,968 kWh	\$0.10072 /kWh	\$33,634,333		
- > 200 x Demand	162,854,869 kWh	\$0.08639 /kWh*	\$14,069,032		
Customer	84,018 bills	\$19.50 /bill	\$1,638,351		
<u>Primary</u>					
Demand - Standard	38,082 kW	\$1.98 /kW*	\$75,402		
- Minimum	2,671 kW	\$8.55 /kW	\$22,837		
Energy - <= 200 x Demand	5,716,583 kWh	\$0.09245 /kWh *	\$528,498		
- > 200 x Demand	3,592,839 kWh	\$0.08270 /kWh	\$297,128		
Customer	1,009 bills	\$50.00 /bill	\$50,450		
<u>Subtransmission</u>					
Demand - Standard	2,508 kW	\$1.96 /kW	\$4,916		
- Minimum	314 kW	\$8.55 /kW	\$2,685		
Energy - <= 200 x Demand	385,067 kWh	\$0.08538 /kWh *	\$32,877		
- > 200 x Demand	619,468 kWh	\$0.08018 /kWh	\$49,669		
Customer	119 bills	\$364.00 /bill	\$43,316		
Total Standard MGS Revenue			\$54,705,341	\$54,705,341	0

VII. Off-Peak Energy Charge

Energy Revenue Requirement	\$17,567,916 /	503,278,554 kwh =	\$0.03491
Fixed Cost Adder			0.02000
Calculated Off-Peak Energy Charge			\$0.05491
Use:			\$0.05491
Off-Peak % Usage - secondary			51.80%
Off-Peak kWh			260,675,583
Off-Peak Revenue			\$14,313,696

VIII. On-Peak Energy Charge

Total MGS Secondary Base Revenue	\$54,199,281
Less: Standard Customer Revenue	1,638,351
TOD Customer Revenue	17,784
LM-TOD Customer Revenue	2,125
Off-Peak Energy Revenue	14,313,696
On-Peak Revenue	\$38,227,325
On-Peak kWh Energy	242,602,971
Proposed On-Peak Energy Charge	\$0.15757 /kWh

KENTUCKY POWER COMPANY
 MGS Rate Design
 Twelve Months Ended March 31, 2013

IX. Revenue Verification

	<u>Units</u>	<u>Rate</u>	<u>Revenue</u>	<u>Difference</u>
On-Peak	242,602,971 kWh	\$0.15757	\$38,226,950	
Off-Peak	260,675,583 kWh	\$0.05491	14,313,696	
Standard Customer	84,018 Bills	\$19.50	1,638,351	
TOD	912 Bills	\$19.50	17,784	
LM-TOD	552 Bills	\$3.85	2,125	
Total Base Revenue			\$54,198,906	(\$375)

*Revised after revenue verification

X. Time-of-Day Customer Charges

	<u>Units</u>	<u>Charge</u>	<u>Revenue</u>
MGS-TOD	912 Bills	\$19.50 *	\$17,784
MGS-LM-TOD	552 Bills	\$3.85 **	2,125

* Use Proposed Standard Charge. ** Use Proposed RES

XI. Revenue From Existing TOD Customers

	<u>Units</u>	<u>Rate</u>	<u>Proposed Revenue</u>
MGS-TOD			
On-Peak Energy	1,411,570 kWh	\$0.15757	\$222,421
Off-Peak Energy	2,454,995 kWh	\$0.05491	134,804
Customer	912 Bills	\$19.50	17,784
Total			\$375,009
MGS-LM-TOD			
On-Peak Energy	425,019 kWh	\$0.15757	\$66,970
Off-Peak Energy	629,992 kWh	\$0.05491	34,593
Customer	552 Bills	\$3.85	2,125
Total			\$103,688

XII. Recreational Lighting

Customer Charge	Use: Proposed MGS Secondary	\$19.50
Secondary Demand and Energy Rev Requirement	52,991,449	
Secondary Energy	503,278,554	
Proposed Energy Charge	\$0.10529	

<u>Revenue from Recreational Lighting</u>	<u>Units</u>	<u>Rate</u>	<u>Revenue</u>
Energy	1,563,141 kWh	\$0.10000 /kWh *	\$156,314
Customer	924 Bills	\$19.50 /mo	18,018
Total Base Revenue			\$174,332

* Limited after revenue verification

KENTUCKY POWER COMPANY
 LGS Rate Design
 Twelve Months Ended March 31, 2013

I. Proposed Revenue	Billed and Accrued Revenue	Fuel Revenue	Base Revenue
Secondary			
Demand	\$34,094,707	\$0	\$34,094,707
Energy	20,607,036	1,144,624	19,462,412
Customer	308,881	0	308,881
Total	\$55,010,624	\$1,144,624	\$53,866,000
Secondary LM-TOD	\$189,047	\$4,000	\$185,047
Secondary Excl. LM-TOD			
Demand	\$33,977,538	\$0	\$33,977,538
Energy	20,536,219	1,140,624	19,395,595
Customer	307,820	0	307,820
Total	\$54,821,577	\$1,140,624	\$53,680,953
Primary			
Demand	\$6,378,140	\$0	\$6,378,140
Energy	4,517,488	228,985	4,288,503
Customer	90,242	0	90,242
Total	\$10,985,870	\$228,985	\$10,756,885
Subtransmission			
Demand	\$932,601	\$0	\$932,601
Energy	1,096,841	68,837	1,028,004
Customer	158,790	0	158,790
Total	\$2,188,232	\$68,837	\$2,119,395
Transmission			
Demand	\$16,478	\$0	\$16,478
Energy	22,831	1,373	21,458
Customer	10,656	0	10,656
Total	\$49,965	\$1,373	\$48,592
Total LGS Excl LMTOD			
Demand	\$41,304,757	\$0	\$41,304,757
Energy	26,173,379	1,439,819	24,733,560
Customer	567,508	0	567,508
Total	\$68,045,644	\$1,439,819	\$66,605,825

II. Billing Determinant Summary	Secondary	Primary	Subtransmission	Transmission
Billing Demand	1,666,281	386,863	110,848	5,277
Billing Reactive	49,112	62,872	6,203	2,541
Billing kWh	558,760,756	112,193,710	33,745,670	671,609
Bills	8,973	936	240	12

KENTUCKY POWER COMPANY
 LGS Rate Design
 Twelve Months Ended March 31, 2013

III. Proposed Customer Charges & Revenue

Proposed Customer Charge	Customer Revenue	Bills	Full Cost Rate	Proposed Rate
Secondary	\$307,820	8,973	\$34.31	\$85.00 *
Primary	90,242	936	\$96.41	\$127.50 *
Subtransmission	158,790	240	\$661.63	\$661.65 **
Transmission	<u>10,656</u>	<u>12</u>	\$888.00	\$661.65 ***
Total	\$567,508	10,161		

* Use Current.
 ** Full cost.
 *** Equal to Subtrans

Proposed Customer Revenue	Proposed Rate	Bills	Customer Revenue
Secondary	\$85.00	8,973	\$762,705
Primary	\$127.50	936	119,340
Subtransmission	\$661.65	240	158,796
Transmission	\$661.65	<u>12</u>	<u>7,940</u>
Total		10,161	\$1,048,781

IV. Proposed Excess KVA Charges & Revenue

Proposed KVA Revenue	Proposed/Current Rate	Excess KVA	Revenue
Secondary	\$3.46	49,112	\$169,928
Primary	\$3.46	62,872	217,537
Subtransmission	\$3.46	6,203	21,462
Transmission	\$3.46	<u>2,541</u>	<u>8,792</u>
Total		120,728	\$417,719

V. Proposed Demand Charges and Revenue

Current Secondary Charge: \$4.02 x proposed increase 25.00% = \$5.03

Demand Charges	Secondary Rate	Loss Factor	Proposed Demand Rate
Secondary	\$5.03	1.000	\$5.03
Primary	\$5.03	0.971	\$4.89
Subtransmission	\$5.03	0.958	\$4.82
Transmission	\$5.03	0.944	\$4.75

Proposed Demand Revenue	Billing Demand	Proposed Rate	Demand Revenue
Secondary	1,666,281	\$5.03	\$8,381,393
Primary	386,863	\$4.89	1,891,760
Subtransmission	110,848	\$4.82	534,287
Transmission	<u>5,277</u>	\$4.75	<u>25,066</u>
Total	2,169,269		\$10,832,506

KENTUCKY POWER COMPANY
LGS Rate Design
Twelve Months Ended March 31, 2013

VI. Proposed Energy Charges and Revenue

Loss Adjusted Energy	<u>Billing Energy</u>	<u>Loss Factor</u>	<u>Loss Adj Energy</u>
Secondary	558,760,756	1.000	558,760,756
Primary	112,193,710	0.965	108,296,101
Subtransmission	33,745,670	0.955	32,219,353
Transmission	<u>671,609</u>	<u>0.944</u>	<u>633,663</u>
Total	705,371,745		699,909,873

Equipment Credit Revenue	<u>Billing Energy</u>	<u>Equipment Credit</u>	<u>Credit Revenue</u>
Secondary	558,760,756	--	0
Primary	112,193,710	(0.00924)	(1,036,670)
Subtransmission	33,745,670	(0.03022)	(1,019,794)
Transmission	<u>671,609</u>	<u>(0.03022)</u>	<u>(20,296)</u>
Total	705,371,745		(\$2,076,760)

Total Revenue	\$66,605,825
Less: Customer Revenue	1,048,781
Excess KVA Revenue	417,719
Demand Revenue	10,832,506
Equipment Credit Revenue	<u>(2,076,760)</u>

Energy Revenue	\$56,383,579
Loss Adjusted Billing Energy	<u>699,909,873</u>

Secondary Energy Charge \$0.08056

	<u>Secondary Rate</u>	<u>Loss Factor</u>	<u>Energy Rate</u>	<u>Equipment Credit</u>	<u>Proposed Rate</u>
Secondary	\$0.08056	1.000	\$0.08056	0.00000	\$0.08056
Primary	0.08056	0.965	\$0.07776	(0.00924)	\$0.06852
Subtransmission	0.08056	0.955	\$0.07692	(0.03022)	\$0.04670
Transmission	0.08056	0.944	\$0.07601	(0.03022)	\$0.04579

KENTUCKY POWER COMPANY
 LGS Rate Design
 Twelve Months Ended March 31, 2013

VII. Revenue Verification		<u>Units</u>	<u>Rate</u>	<u>Revenue</u>
Secondary	Demand	1,666,281 kW	\$5.03 /kW	\$8,381,393
	Excess KVA	49,112 KVA	3.46 /KVA	169,928
	Energy	558,760,756 kWh	0.08056 /kWh	45,013,767
	Customer	8,973 Bills	85.00 /Mo	<u>762,705</u>
	Total Billed			\$54,327,793
Primary	Demand	386,863 kW	\$4.89 /kW	\$1,891,760
	Excess KVA	62,872 KVA	3.46 /KVA	217,537
	Energy	112,193,710 kWh	0.06851 /kWh *	7,686,391
	Customer	936 Bills	127.50 /Mo	<u>119,340</u>
	Total Billed			\$9,915,028
Subtran	Demand	110,848 kW	\$4.82 /kW	\$534,287
	Excess KVA	6,203 KVA	3.46 /KVA	21,462
	Energy	33,745,670 kWh	0.04670 /kWh	1,575,923
	Customer	240 Bills	661.65 /Mo	<u>158,796</u>
	Total Billed			\$2,290,468
Tran	Demand	5,277 kW	\$4.75 /kW	\$25,066
	Excess KVA	2,541 KVA	3.46 /KVA	8,792
	Energy	671,609 kWh	0.04579 /kWh	30,753
	Customer	12 Bills	661.65 /Mo	<u>7,940</u>
	Total Billed			\$72,551
Total Tariff LGS				\$66,605,840
Target				\$66,605,825
Difference				\$15

* Revised after revenue verification

VIII. Off-Peak Energy Charge For LM-TOD

Secondary Energy Revenue Req't	\$19,462,412 / 560,720,695 kwh =	\$0.03471
Fixed Cost Adder		<u>0.02000</u>
Calculated Off-Peak Energy Charge		\$0.05471
Use:		\$0.05471
Off-Peak % Usage - secondary		<u>49.71%</u>
Off-Peak kWh		<u>278,740,431</u>
Off-Peak Revenue		\$15,249,889

KENTUCKY POWER COMPANY
 LGS Rate Design
 Twelve Months Ended March 31, 2013

IX. On-Peak Energy Charge

Total LGS Secondary Base Revenue	\$53,866,000
Less: Customer Revenue	762,705
Time-of-Day Customer Revenue	9,265
Off-Peak Energy Revenue	<u>15,249,889</u>
On-Peak Revenue	\$37,844,141
On-Peak kWh Energy	<u>281,980,264</u>
Proposed On-Peak Energy Charge	\$0.13421 /kWh

X. Revenue Verification

	<u>Units</u>	<u>Rate</u>	<u>Revenue</u>	<u>Difference</u>
On-Peak	281,980,264 kWh	\$0.13421 /kWh	\$37,844,571	
Off-Peak	278,740,431 kWh	\$0.05470 /kWh *	15,247,102	
Customer - Standard	8,973 Bills	\$85.00 /Mo	762,705	
- Time-of-Day	109 Bills	\$85.00 /Mo	9,265	
Total Base Revenue			\$53,863,643	(\$2,357)

*Revised after revenue verification

XI. Revenue From Existing TOD Customers

	<u>Units</u>	<u>Rate</u>	<u>Proposed Revenue</u>
LGS-LM-TOD			
On-Peak Energy	862,445 kWh	\$0.13421 /kWh	\$115,749
Off-Peak Energy	1,097,494 kWh	\$0.05470 /kWh	60,033
Customer	109 Bills	\$85.00 /Mo *	<u>9,265</u>
Total			\$185,047

*Use same as standard

KENTUCKY POWER COMPANY
 LGS Time-of-Day Rate Design
 Twelve Months Ended March 31, 2013

I. Proposed Revenue

	<u>Secondary</u>	<u>Primary</u>	<u>Subtran</u>	<u>Trans</u>	
<u>Proposed Base Revenue</u>					
Demand	\$34,094,707	\$6,378,140	\$932,601	\$16,478	
Energy	19,462,412	4,288,503	1,028,004	21,458	
Customer	308,881	90,242	158,790	10,656	
Total Base Revenue	\$53,866,000	\$10,756,885	\$2,119,395	\$48,592	

II. Customer Revenue

Full Cost Customer Revenue	\$308,881	\$90,242	\$158,790	\$10,656	
All Bills	9,082	936	240	12	
Calculated Customer Charge	\$34.01	\$96.41	\$661.63	\$888.00	
Proposed Customer Charge	\$85.00	\$127.50	\$661.65	\$661.65	
All Bills	9,082	936	240	12	
Proposed Customer Revenue	\$ 771,970	\$ 119,340	\$ 158,796	\$ 7,940	

III. Off-Peak Energy Charge

	<u>Secondary</u>	<u>Primary</u>	<u>Subtran</u>	<u>Trans</u>	<u>Total</u>	
Energy Revenue Requirement	\$19,462,412	\$4,288,503	\$1,028,004	\$21,458	\$24,800,377	
Total Billing kWh	560,720,695	112,193,710	33,745,670	671,609		
Loss Factor	1.000	0.965	0.955	0.944		
Loss Adjusted Energy	560,720,695	108,296,101	32,219,353	633,663	701,869,812	
Total Energy Charge	\$0.03533	\$0.03411	\$0.03374	\$0.03334	\$0.03533	
Fixed Cost Adder	\$0.01000	\$0.01000	\$0.01000	\$0.01000		
Calculated Off-Peak Energy Charge	\$0.04533	\$0.04411	\$0.04374	\$0.04334		
Proposed Off-Peak Energy Charge	\$0.04533	\$0.04411	\$0.04374	\$0.04334		
Off-Peak % Usage	49.71%	49.78%	49.89%	49.83%		From Load Research
Off-Peak kWh	278,740,431	55,853,292	16,837,024	334,640		
Proposed Off-Peak Charge	\$0.04533	\$0.04411	\$0.04374	\$0.04334		
Off-Peak Revenue	\$12,635,304	\$2,463,689	\$736,451	\$14,503		

KENTUCKY POWER COMPANY
 LGS Time-of-Day Rate Design
 Twelve Months Ended March 31, 2013

IV. Demand Charge

	<u>Billing Demand</u>	<u>Proposed Rate *</u>	<u>Demand Revenue</u>
LGS - Secondary	1,666,281	10.20	\$16,996,066
- Primary	386,863	7.35	2,843,443
- Subtransmission	110,848	1.08	119,716
- Transmission	5,277	1.07	5,646
Total			\$19,964,871

* Full cost off-peak rates

V. On-Peak Energy Charge

	<u>Secondary</u>	<u>Primary</u>	<u>Subtran</u>	<u>Trans</u>	<u>Total</u>
Total Revenue	\$53,866,000	\$10,756,885	\$2,119,395	\$48,592	
Less: Customer Revenue	771,970	119,340	158,796	7,940	
Demand Revenue	16,996,066	2,843,443	119,716	0	
Off-Peak Energy Revenue	12,635,304	2,463,689	736,451	14,503	
On-Peak Revenue	\$23,462,660	\$5,330,413	\$1,104,432	\$26,149	\$29,923,654
On-Peak kWh	281,980,264	56,340,418	16,908,646	336,969	
Loss Factor	1.000	0.965	0.955	0.944	
Loss Adjusted Energy	281,980,264	54,383,152	16,143,868	317,930	352,825,214
Calculated On-Peak Energy Charge	\$0.08481	\$0.08187	\$0.08098	\$0.08002	\$0.08481
Proposed On-Peak Energy Charge	\$0.08481	\$0.08187	\$0.08098	\$0.08002	
On-Peak kWh	281,980,264	56,340,418	16,908,646	336,969	
On-Peak Revenue	\$23,914,746	\$4,612,590	\$1,369,262	\$26,964	

KENTUCKY POWER COMPANY
 OP Rate Design
 Twelve Months Ended March 31, 2013

Proposed Revenue		Base Revenue			
Demand		\$70,083,904			
Energy		91,425,407			
Customer		424,786			
Total		\$161,934,097			

II. Billing Determinant Summary	Secondary	Primary	Subtransmission	Transmission	sec	pri	sub	tran
QP Billing Data								
On-Peak Billing Demand	52,430	747,347	927,247	145,830				
Off-Peak Billing Demand	41,767	649,744	816,264	142,365				
Off-Peak Excess Demand	463	4,273	12,051	2,250				
Minimum Billing Demand (CIP) (applied)								
Maximum Monthly Demand kW	52,893	751,620	939,298	148,080	0.9976	0.9837	1.0002	1.3634 Min kW adjust
Billing Reactive	4,387	114,172	265,869	76,675	52,764	739,332	939,455	201,894 adjusted min k
Billing kWh	22,421,138	331,215,696	342,877,689	66,309,341				
Block 1 kWh (500)	21,605,993	306,376,814	326,136,247	66,046,679				
Block 2 kWh (500)	815,145	24,838,882	16,741,443	262,663				
Bills	71	479	307	60				
CIP-TOD Billing Data								
On-Peak Billing Demand			2,915,472	428,879				
Off-Peak Billing Demand			3,028,911	414,632				
Off-Peak Excess Demand			121,448	279				
Minimum Billing Demand (CIP) (applied)			87,948	124,559			121,187	316 UI off pk xcs
Maximum Monthly Demand kW			3,036,920	429,158			1,0022	0.8823 adjustment fac
Billing Reactive			202,954	20,478			121,448	279 adjusted off pk
Billing kWh			1,764,053,671	292,348,940				
Block 1 kWh (500)			1,402,048,411	226,494,416				
Block 2 kWh (500)			362,005,260	65,853,924				
Bills			107	24				
Total Billing Data								
On-Peak Billing Demand	52,430	747,347	3,842,719	574,709				
Off-Peak Billing Demand	41,767	649,744	3,845,175	556,997				
Off-Peak Excess Demand	463	4,273	133,499	2,529				
Minimum Billing Demand (CIP) (applied)	0	0	87,948	124,559				
Maximum Monthly Demand kW	52,893	751,620	3,976,218	577,238				
Billing Reactive	4,387	114,172	468,823	97,153				
Billing kWh	22,421,138	331,215,696	2,106,931,360	358,657,681	101%	101%	103%	100% Adjusted Min k
Block 1 kWh	21,605,993	306,376,814	1,728,194,658	292,541,095				
Block 2 kWh	815,145	24,838,882	378,746,703	66,116,587				
Bills	71	479	414	84				

III. Proposed Customer Charges & Revenue	Customer Revenue	Bills	Full Cost Rate	Use: Current Rate
Proposed Customer Charge				
Secondary	2,349	71	\$33.08	\$276 OP
Primary	43,721	479	\$91.28	\$276 CIP-TOD
Subtransmission	301,808	414	\$729.00	\$794 CIP-TOD
Transmission	80,402	84	\$957.17	\$1,353 CIP-TOD
Total	\$428,280	1,048		
Proposed Customer Revenue		Proposed Rate	Bills	Customer Revenue
Secondary		\$276.00	71	19,596
Primary		\$276.00	479	132,204
Subtransmission		\$794.00	414	328,716
Transmission		\$1,353.00	84	113,652
Total			1,048	\$594,168

IV. Proposed Excess KVAR Charges & Revenue	Use: Current Excess KVAR Rate	Excess KVAR	Revenue
Proposed KVAR Revenue			
Secondary	\$0.69	4,387	3,027
Primary	\$0.69	114,172	78,779
Subtransmission	\$0.69	468,823	323,488
Transmission	\$0.69	97,153	67,036
Total		684,535	\$472,330

V. Proposed Off-Peak Demand Charges and Revenue	Off-peak Demand	Proposed Rate	Revenue
Secondary	41,767	\$1.13	47,197
Primary	649,744	\$1.10	714,718
Subtransmission	3,845,175	\$1.08	4,152,789
Transmission	556,997	\$1.07	595,987
Total	5,093,683		\$5,510,691

VI. Proposed Energy Charges and Revenue	Billing Energy	Loss Factor	Loss Adj Energy
Loss Adjusted Energy			
Secondary	22,421,138	1.000	22,421,138
Primary	331,215,696	0.965	319,709,263
Subtransmission	2,106,931,360	0.955	2,011,634,855
Transmission	358,657,681	0.944	338,993,522
Total	2,819,225,875		2,692,158,778
Energy Revenue	\$91,425,407		
Loss Adjusted Billing Energy	2,692,158,778		
Secondary Energy Charge	\$0.03396		
Secondary	Loss	Proposed Energy	

From Equipment Credit Workpaper: Off Peak Excess Demand Charge

Loss Factors from Load Research Study

KENTUCKY POWER COMPANY
 QP Rate Design
 Twelve Months Ended March 31, 2013

	Rate	Factor	Rate
Secondary	\$0.03396	1.000	\$0.03396
Primary	0.03396	0.965	\$0.03278
Subtransmission	0.03396	0.955	\$0.03242
Transmission	0.03396	0.944	\$0.03204

Proposed Energy Revenue	Billing Energy	Proposed Rate	Revenue
Secondary	22,421,138	\$0.03396	761,422
Primary	331,215,696	\$0.03278	10,857,251
Subtransmission	2,106,931,360	\$0.03242	68,306,715
Transmission	<u>358,657,681</u>	\$0.03204	<u>11,491,392</u>
Total	2,819,225,875		\$91,416,780

VII. Proposed Minimum Demand Charges and Revenue

Calculation of Loss Adj Demand	Maximum Demand	Loss Factor	Loss Adj Demand
Secondary	52,893	1.000	52,893
Primary	751,620	0.971	729,988
Subtransmission	3,976,218	0.958	3,810,886
Transmission	<u>577,238</u>	<u>0.944</u>	<u>544,999</u>
Total	5,357,968		5,138,766

Equipment Credit Revenue	Maximum Demand	Equipment Credit	Credit Revenue
Secondary	52,893	0.00	\$0
Primary	751,620	(2.63)	(\$1,976,761)
Subtransmission	3,976,218	(9.07)	(\$36,064,293)
Transmission	<u>577,238</u>	<u>(9.07)</u>	<u>(\$5,235,547)</u>
Total	5,357,968		(\$43,276,601)

Total Required Demand Revenue	\$70,083,904
Less: Equipment Credit Revenue	<u>(43,276,601)</u>
Demand Revenue	\$113,360,505
Loss Adjusted Maximum Demand	<u>5,138,766</u>
Full Cost Demand Charge	\$22.06

Demand Charges	Secondary Rate	Loss Factor	Demand Rate	Equipment Credit	Proposed Rate
Secondary	\$22.06	1.000	\$22.06	0.00	\$22.06
Primary	\$22.06	0.971	\$21.43	(2.63)	\$18.80
Subtransmission	\$22.06	0.958	\$21.14	(9.07)	\$12.07
Transmission	\$22.06	0.944	\$20.83	(9.07)	\$11.76

Proposed Minimum Demand Revenue	Minimum Demand	Proposed Rate	Revenue
Secondary	0	\$22.06	0
Primary	0	\$18.80	0
Subtransmission	87,948	\$12.07	1,061,532
Transmission	<u>124,559</u>	<u>\$11.76</u>	<u>1,464,814</u>
Total	212,507		\$2,526,346

VII. Proposed On-Peak Demand Charges and Revenue

Calculation of Loss Adj Demand	Billing Demand	Loss Factor	Loss Adj Demand
Secondary	52,430	1.000	52,430
Primary	747,347	0.971	725,838
Subtransmission	3,842,719	0.958	3,682,939
Transmission	<u>574,709</u>	<u>0.944</u>	<u>542,612</u>
Total	5,217,205		5,003,819

Equipment Credit Revenue	Billing Demand	Equipment Credit	Credit Revenue
Secondary	52,430	0.00	\$0
Primary	747,347	(2.63)	(\$1,965,523)
Subtransmission	3,842,719	(9.07)	(\$34,853,461)
Transmission	<u>574,709</u>	<u>(9.07)</u>	<u>(\$5,212,611)</u>
Total	5,217,205		(\$42,031,595)

From Equipment Credit Workpaper: Off Peak Excess Demand Charge Full Cost Demand Charge

Total Required Base Revenue	\$161,934,097
Less: Customer Revenue	\$594,168
Excess KVAR Revenue	472,330
Off-peak Revenue	5,510,691
Energy Revenue	91,416,780
Minimum Demand Revenue	2,526,346
Equipment Credit Revenue	<u>(42,031,595)</u>
Demand Revenue	\$103,445,377
Loss Adjusted Billing Demand	<u>5,003,819</u>
Full Cost Demand Charge	\$20.67
% of Full Cost	100% \$20.67

Demand Charges	Secondary Rate	Loss Factor	Demand Rate	Equipment Credit	Proposed Rate
Secondary	\$20.67	1.000	\$20.67	0.00	\$20.67
Primary	\$20.67	0.971	\$20.08	(2.63)	\$17.45
Subtransmission	\$20.67	0.958	\$19.81	(9.07)	\$10.74
Transmission	\$20.67	0.944	\$19.52	(9.07)	\$10.45

Proposed On-Peak Demand Revenue	On-Peak Demand	Proposed Rate	Revenue
Secondary	0	\$20.67	0
Primary	0	\$17.45	0
Subtransmission	87,948	\$10.74	943,751
Transmission	<u>124,559</u>	<u>\$10.45</u>	<u>1,301,251</u>
Total	212,507		\$2,245,002

KENTUCKY POWER COMPANY
QP Rate Design
Twelve Months Ended March 31, 2013

Secondary	52,430	\$20.67	1,083,728
Primary	747,347	\$17.45	13,041,205
Subtransmission	3,842,719	\$10.74	41,270,802
Transmission	<u>574,709</u>	\$10.45	<u>6,005,709</u>
Total	5,217,205		\$61,401,444

KENTUCKY POWER COMPANY
 QP Rate Design
 Twelve Months Ended March 31, 2013

VIII. Revenue Verification		Units	Rate	Revenue	Target	Difference
Secondary	On-Peak Demand	52,430 kW	\$20.69 /kW *	\$1,084,777		
	Off-peak Demand	41,767 kW	1.13 /kW	47,197		
	Minimum Demand	0 kW	22.06 /kW	0		
	Excess KVAR	4,387 KVAR	0.69 /KVAR	3,027		
	Energy	22,421,138 kWh	0.03398 /kWh *	761,870		
	Customer	71 Bills	276.00 /Mo	<u>19,596</u>		
	Total Billed			\$1,916,467		
Primary	On-Peak Demand	747,347 kW	\$17.46 /kW *	\$13,048,679		
	Off-peak Demand	649,744 kW	1.10 /kW	714,718		
	Minimum Demand	0 kW	18.80 /kW	0		
	Excess KVAR	114,172 KVAR	0.69 /KVAR	78,779		
	Energy	331,215,696 kWh	0.03279 /kWh *	10,860,563		
	Customer	479 Bills	276.00 /Mo	<u>132,204</u>		
	Total Billed			\$24,834,943		
Subtran	On-Peak Demand	3,842,719 kW	\$10.74 /kW	\$41,270,802		
	Off-peak Demand	3,845,175 kW	1.08 /kW	4,152,789		
	Minimum Demand	87,948 kW	12.07 /kW	1,061,532		
	Excess KVAR	468,823 KVAR	0.69 /KVAR	323,488		
	Energy	2,106,931,360 kWh	0.03242 /kWh	68,306,715		
	Customer	414 Bills	794.00 /Mo	<u>328,716</u>		
	Total Billed			\$115,444,042		
Tran	On-Peak Demand	574,709 kW	\$10.45 /kW	\$6,005,709		
	Off-peak Demand	556,997 kW	1.07 /kW	595,987		
	Minimum Demand	124,559 kW	11.76 /kW	1,464,814		
	Excess KVAR	97,153 KVAR	0.69 /KVAR	67,036		
	Energy	358,657,681 kWh	0.03204 /kWh	11,491,392		
	Customer	84 Bills	1,353.00 /Mo	<u>113,652</u>		
	Total Billed			\$19,738,590		
Total Tariff IGS			\$161,934,042	\$161,934,097	(\$55)	

* Revised after revenue verification

KENTUCKY POWER COMPANY
 Equipment Credits Relative to Secondary
 Twelve Months Ended September 30, 2014

Current Billing Demand Summary

	Secondary	Primary	Subtran	Bulk Tran	Production
MGS	2,103,122	40,753	2,822		
LGS	1,698,961	386,863	110,848		
QP	52,430	747,348	927,247	145,830	
CIP	0	0	2,915,472	428,879	
Total	3,854,513	1,174,964	3,956,389	574,709	
Relative Loss Factor	1.000	0.971	0.958	0.944	
Loss Adj Demand	3,854,513	1,141,149	3,791,882	542,612	
Demand Served by Subtran	2,906,303	860,426	3,791,882		
Functional Demand Rev	10,120,808	32,150,397	0	0	105,286,552
Functional Demand	3,854,513	4,995,662	7,558,611	9,330,156	9,330,156
Functional Cost	2.63	6.44	0.00	0.00	11.28

Full Cost Equipment Credits (Relative to Secondary)

	Secondary	Primary	Subtran	Total
Primary	2.63			2.63
Subtransmission	2.63	6.44		9.07
Transmission	2.63	6.44	0.00	9.07

TOD and AF Demands

	Standard		Other	
	Metered kWh	Billing Demand	Metered kWh	Billing Demand
MGS-Sec	496,793,837	2,076,023		
MGS-TOD			3,866,566	16,158
MGS-LM-TOD			1,055,011	4,409
MGS-AF			1,563,141	6,532
LGS-Sec	558,821,755	1,666,281		
LGS-LM-TOD			10,959,939	32,680

KENTUCKY POWER COMPANY
 Equipment Credits Relative to Secondary
 Twelve Months Ended September 30, 2014

Current Metered Energy Summary

	Secondary	Primary	Subtran	Bulk Tran	Production
MGS	503,278,555	9,357,099	1,007,768		
LGS	569,781,694	112,185,685	33,725,194		
QP	22,421,138	331,170,851	342,410,874	66,272,717	
CIP	0	0	1,764,053,671	292,348,340	
Total	1,095,481,387	452,713,635	2,141,197,507	358,621,057	
Relative Loss Factor	1.000	0.965	0.955	0.944	
Loss Adj Energy	1,095,481,387	436,986,363	2,044,351,144	338,358,967	
	75%	75%			
Energy Served by Subtran	825,992,966	329,487,718	2,044,351,144		
Functional Demand Rev	10,120,808	32,150,397	0	0	105,286,552
Functional Energy	1,095,481,387	1,532,467,750	3,199,831,828	3,915,177,861	3,915,177,861
Functional Cost	0.00924	0.02098	0.00000	0.00000	0.02689

Full Cost Equipment Credits

	Secondary	Primary	Subtran	Total
Primary	0.00924			0.00924
Subtransmission	0.00924	0.02098		0.03022
Transmission	0.00924	0.02098	0.00000	0.03022

TOD and AF Energy

	Metered kWh
MGS-Sec	496,793,837
MGS-TOD	3,866,566
MGS-LM-TOD	1,055,011
MGS-AF	<u>1,563,141</u>
Total MGS-Sec	503,278,555
LGS-Sec	558,821,755
LGS-LM-TOD	<u>10,959,939</u>
Total LGS-Sec	569,781,694

KENTUCKY POWER COMPANY
 Full Cost Off-Peak Demand Charges
 Twelve Months Ended September 30, 2014

	Demand Loss <u>Factors</u>	<u>Production</u>	Full Cost <u>Charges</u>
Functional Demand Cost		11.28	
Off-Peak Recovery %		10%	
Off Peak Demand Cost		1.13	
Secondary Charge	1.000	1.13	\$1.13
Primary Charge	0.971	1.10	\$1.10
Subtran Charge	0.958	1.08	\$1.08
Transmission Charge	0.944	1.07	\$1.07

KENTUCKY POWER COMPANY
 Full Cost Off-Peak Excess
 Twelve Months Ended September 30, 2014

	<u>Demand Loss Factors</u>	<u>Distribution</u>		<u>Subtran</u>	<u>Bulk Tran</u>	<u>Production</u>	<u>Full Cost Charges</u>
		<u>Secondary</u>	<u>Primary</u>				
Functional Demand Cost		2.63	6.44	0.00	0.00	11.28	
Off-Peak Recovery %		100%	100%	10%	10%	10%	
Off Peak Demand Cost		2.63	6.44	0.00	0.00	1.13	
Secondary Charge	1.000	2.63	6.44	0.00	0.00	1.13	\$10.20
Primary Charge	0.971		6.25	0.00	0.00	1.10	\$7.35
Subtran Charge	0.958			0.00	0.00	1.08	\$1.08
Transmission Charge	0.944				0.00	1.07	\$1.07

KENTUCKY POWER COMPANY
Alternate Feed Service (AFS) Rate Design
Twelve Months Ended September 30, 2014

AFS Monthly Cost / Reservation Demand Charge

Primary Demand Revenue Requirement			\$32,150,397
Functional Demand kW @ Secondary	/		4,995,662
<hr/>			
Monthly Cost @ Secondary	=		\$6.44
Loss Factor Secondary to Primary	x		0.97122
<hr/>			
AFS Monthly Cost @ Primary	=		\$6.25

AFS Transfer Switch Monthly Testing Rate

Total Annual AFS Transfer Switch Testing Cost			\$171.00
Divided by 12	/		12
<hr/>			
Total Monthly AFS Transfer Switch Testing Rate	=		\$14.25

Kentucky Power Company
 MW Rate Design
 Twelve Months Ended September 30, 2014

I. Revenue	Billed & Accrued Revenue	Fuel	Base Revenue
Demand	202,592	0	202,592
Energy	142,805	7,887	134,918
Customer	1,760	0	1,760
Total	347,157	7,887	339,270

II. Customer Charge						
Full Cost Customer Charge	\$1,760	/	132	bills	\$	13.33 /mo.
				Use current:	\$	22.90 /mo.
Customer Revenue	132 Bills	X	\$22.90	/mo.	\$	3,023

III. Demand Charge	
Demand Revenue Requirement	\$202,592
Monthly Demand (SNCP)	7,671
Full Cost Demand Charge	26.41
Current Minimum Demand Charges	4.10
Use 2x current	8.20
Minimum kW	714
Minimum Demand Charge Revenue	\$ 5,855

IV. Energy Charge	
Energy Revenue Requirement	
Total MW Revenue Requirement	\$339,270
Less: Customer Revenue	3,023
Less: Minimum Demand Revenue	5,855
Energy Charge Revenue	\$330,392
Billing kWh	3,841,169
Proposed Energy Charge	0.08601

V. Revenue Verification	Units	Proposed Charges	Revenue	Target Revenue	Difference
Energy	3,841,169	\$0.08601	330,379		
Demand	714	\$ 8.20	5,855		
Customer	132	\$22.90	3,023		
Total MW Verified Revenues			339,257	339,270	(13)

*Revised after revenue verification

Kentucky Power Company
 OL Rate Design
 Twelve Months Ended March 31, 2013

Tariff #	Lamp Type & Size (1)	Annual Number of Lamps (2)	Present		Cost Based Rate (5)	Proposed		Annual Increase (8)	Percent Increase (9)=(8/4)
			Rate (3)	Revenue (4)=(2*3)		Rate (6)	Revenue (7)=(2*6)		
High Pressure Sodium									
94	100 Watt	235,073	\$8.75	\$2,056,889	\$10.65	\$9.65	\$2,268,454	\$211,565	10.29%
113	150 Watt	221,760	\$9.90	\$2,195,424	\$12.15	\$10.95	\$2,428,272	\$232,848	10.61%
97	200 Watt	21,655	\$12.20	\$264,191	\$14.15	\$13.45	\$291,260	\$27,069	10.25%
103	250 Watt	-	\$13.35		\$18.12	\$18.10	\$0	\$0	35.58%
98	400 Watt	2,062	\$19.15	\$39,487	\$21.46	\$21.05 **	\$43,405	\$3,918	9.92%
111	100 Watt Post Top	8,322	\$13.10	\$109,018	\$30.41	\$14.45	\$120,253	\$11,235	10.31%
122	150 Watt Post Top	735	\$21.45	\$15,766	\$31.63	\$23.70	\$17,420	\$1,654	10.49%
107	200 Watt Floodlight	18,371	\$13.60	\$249,846	\$16.47	\$15.00	\$275,565	\$25,719	10.29%
109	400 Watt Floodlight	45,422	\$18.85	\$856,205	\$23.27	\$20.80	\$944,778	\$88,573	10.34%
121	100 Watt Shoebox	-	\$20.00	\$0	\$33.52	\$33.50	\$0	\$0	67.50%
120	250 Watt Shoebox	10	\$24.00	\$240	\$38.78	\$50.05	\$501	\$261	108.54%
126	400 Watt Shoebox	-	\$27.90	\$0	\$44.09	\$44.10	\$0	\$0	58.06%
Metal Halide									
110	250 Watt Floodlight	1,383	\$18.20	\$25,171	\$18.37	\$20.10	\$27,798	\$2,627	10.44%
116	400 Watt Floodlight	9,594	\$24.10	\$231,215	\$23.27	\$26.60	\$255,200	\$23,985	10.37%
131	1000 Watt Floodlight	694	\$52.20	\$36,227	\$42.61	\$67.35	\$46,741	\$10,514	29.02%
130	250 Watt Mongoose	-	\$21.80	\$0	\$25.28	\$25.30	\$0	\$0	16.06%
136	400 Watt Mongoose	-	\$25.50	\$0	\$30.28	\$30.30	\$0	\$0	18.82%
Mercury Vapor *									
93	175 Watt	10,578	\$9.75	\$103,136		\$10.75	\$113,714	\$10,578	10.26%
95	400 Watt	1,023	\$16.85	\$17,238		\$18.60	\$19,028	\$1,790	10.39%
99	175 Post Top	93	\$11.20	\$1,042		\$12.30 **	\$1,144	\$102	9.82%
Facilities Charge									
	Pole	45,138	\$2.85	\$128,643	\$11.18	\$3.15	\$142,185	\$13,542	10.53%
	Span	48,868	\$1.60	\$78,189	\$2.43	\$1.75	\$85,519	\$7,330	9.38%
	Lateral	642	\$6.25	\$4,013	\$8.51	\$6.90	\$4,430	\$418	10.40%
							\$7,085,667	\$673,727	
Base Revenue							\$7,085,667	\$673,727	
Fuel Clause							\$76,829		
Total							\$7,162,496		
Revenue Target							\$7,162,499		
Difference								-\$3	
Overall Class Increase		10.38%							
Scale Factor		1.2900							

* In process of elimination (Overall Increase)

** Revised after revenue verification

Kentucky Power Company
 OL Rate Design
 Twelve Months Ended March 31, 2013

Lamp Type & Size (1)	Estimated Installed Cost (2)	Monthly Facility Cost (3)=(2)*FCCR	Annual Maintenance Cost (4)	Consumption in kWh		Energy Cost @ \$0.08048 per kWh (7)=(6)*EC	Estimated Monthly Maintenance (8)	Lighting Cost Estimate (9)=(3+7+8)
				Annual (5)	Monthly (6)			
High Pressure Sodium (HPS)								
100 Watt	\$282.39	\$4.43	\$35.70	484	40.3	\$3.24	\$2.98	\$10.65
150 Watt	\$281.26	\$4.42	\$36.10	704	58.7	\$4.72	\$3.01	\$12.15
200 Watt	\$287.99	\$4.52	\$34.21	1,012	84.3	\$6.78	\$2.85	\$14.15
250 Watt	\$444.91	\$6.99	\$34.09	1,236	103.0	\$8.29	\$2.84	\$18.12
400 Watt	\$329.03	\$5.17	\$34.49	2,000	166.7	\$13.42	\$2.87	\$21.46
100 Watt Post Top	\$1,540.84	\$24.19	\$35.70	484	40.3	\$3.24	\$2.98	\$30.41
150 Watt Post Top	\$1,522.40	\$23.90	\$36.10	704	58.7	\$4.72	\$3.01	\$31.63
200 Watt Floodlight	\$435.50	\$6.84	\$34.21	1,012	84.3	\$6.78	\$2.85	\$16.47
400 Watt Floodlight	\$444.76	\$6.98	\$34.49	2,000	166.7	\$13.42	\$2.87	\$23.27
100 Watt Shoebox	\$1,738.61	\$27.30	\$35.70	484	40.3	\$3.24	\$2.98	\$33.52
250 Watt Shoebox	\$1,760.85	\$27.65	\$34.09	1,236	103.0	\$8.29	\$2.84	\$38.78
400 Watt Shoebox	\$1,770.83	\$27.80	\$34.49	2,000	166.7	\$13.42	\$2.87	\$44.09
Metal Halide								
250 Watt Floodlight	\$463.85	\$7.28	\$36.25	1,204	100.3	\$8.07	\$3.02	\$18.37
400 Watt Floodlight	\$476.56	\$7.48	\$36.79	1,896	158.0	\$12.72	\$3.07	\$23.27
1000 Watt Floodlight	\$582.51	\$9.15	\$36.13	4,540	378.3	\$30.45	\$3.01	\$42.61
250 Watt Mongoose	\$903.89	\$14.19	\$36.25	1,204	100.3	\$8.07	\$3.02	\$25.28
400 Watt Mongoose	\$922.89	\$14.49	\$36.79	1,896	158.0	\$12.72	\$3.07	\$30.28

Fixed Cost CC Rate
 Using 10-Yr Inv Life

Return	7.71%
Depreciation	7.82%
F.I.T.	1.65%
Prop Taxes, Adm & Gen'l	1.62%
Annual Total	18.80%
Monthly Total FCCRR	1.57%

Outdoor Lighting (OL) Cost of Service

Demand Revenue Requirement	\$445,738
Energy Revenue Requirement	\$1,118,464
Cust. Related Revenue Req.	
O&M Expenses (Excl. A&G)	\$1,281,340
Taxes Other	\$213,164
State Income Tax	\$160,290
Less: Acct. 598	\$189,656
B&A Rev Excl Direct Ltg Costs	\$3,029,340
Class Metered Energy	37,640,598
Energy Rate (\$/kWh)	\$0.08048

Kentucky Power Company
 OL Rate Design
 Twelve Months Ended March 31, 2013

Facilities Charges

	Installed Cost	Carrying Charge	
30ft Wood Pole	547.56	1.57%	8.60
35ft Wood Pole	875.83	1.57%	<u>13.75</u>
Average			11.175
OH Span - Total - < = 150 ft.	154.77	1.57%	2.43
UG Lateral - 50 Feet	541.75	1.57%	8.51

Kentucky Power Company
 SL Rate Design
 Twelve Months Ended March 31, 2013

Lamp Type & Size (1)	Annual Number of Lamps (2)	Present		Cost Based		Proposed		Annual Increase (9)	Percent Increase (10)=(8/4)
		Rate (3)	Revenue (4)=(2*3)	Lamp (5)	Lamp w/pole (6)	Rate (7)	Revenue (8)=(2*5 or 6)		
Service on Existing Wood Poles									
9,500 Lumen HPS	95,940	\$7.25	695,565	9.20	n.a.	\$8.05	772,317	76,752	11.03%
16,000 Lumen HPS	1,038	\$8.30	8,615	10.43	n.a.	\$9.25 *	9,602	987	11.45%
22,000 Lumen HPS	28,868	\$10.30	297,340	12.20	n.a.	\$11.45 *	330,539	33,199	11.17%
50,000 Lumen HPS	5,702	\$16.05	91,517	17.72	n.a.	\$17.80	101,496	9,979	10.90%
Service on New Wood Poles									
9,500 Lumen HPS	4,619	\$10.25	47,345	9.20	16.22	\$11.35	52,426	5,081	10.73%
16,000 Lumen HPS	242	\$11.40	2,759	10.43	17.45	\$12.60 *	3,049	290	10.53%
22,000 Lumen HPS	5,046	\$13.15	66,355	12.20	19.22	\$14.60	73,672	7,317	11.03%
50,000 Lumen HPS	955	\$18.45	17,620	17.72	24.73	\$20.45	19,530	1,910	10.84%
Service on New Metal or Concrete Poles									
9,500 Lumen HPS	-	\$18.90	0	9.20	30.74	\$20.95	0	0	10.85%
16,000 Lumen HPS	-	\$19.85	0	10.43	31.97	\$22.00	0	0	10.83%
22,000 Lumen HPS	1,080	\$25.25	27,270	12.20	33.74	\$28.00	30,240	2,970	10.89%
50,000 Lumen HPS	-	\$27.45	0	17.72	39.26	\$30.45	0	0	10.93%
Subtotal							\$1,392,871	\$138,485	
Fuel							\$16,717		
Total							\$1,409,588		
Revenue Target							\$1,409,592		
Difference								-\$4	
Overall Class Increase		10.89%							
Scale Factor		1.1000							

* Revised after revenue verification

Kentucky Power Company
 SL Rate Design
 Twelve Months Ended March 31, 2013

Lamp Type & Size (1)	Estimated Installed Cost (2)	Monthly Facility Cost (3)=(2)*FCCRR	Annual Maintenance Cost (4)	Consumption in kWh		Energy Cost @ \$0.06007 per kWh (7)=(6)*EC	Estimated Monthly Maintenance (8)	Lighting Cost Estimate (9)=(3+7+8)
				Annual (5)	Monthly (6)			
High Pressure Sodium (HPS)								
9,500 Lumen	\$316.28	\$3.81	\$35.70	484	40.3	\$2.42	\$2.98	\$9.20
16,000 Lumen	\$323.32	\$3.89	\$36.10	704	58.7	\$3.53	\$3.01	\$10.43
22,000 Lumen	\$356.33	\$4.29	\$34.21	1,012	84.3	\$5.06	\$2.85	\$12.20
50,000 Lumen	\$401.64	\$4.83	\$34.49	2,000	166.7	\$10.01	\$2.87	\$17.72

Lamp Type & Size (1)	Lamp Cost (2)	Pole Type (3)	Pole Cost (4)	Estimated Installed Cost (5)	Monthly Facility Cost (6)=(5)*FCCRR	Annual Maintenance Cost (7)	Consumption in kWh		Energy Cost @ \$0.06007 per kWh (10)=(6)*EC	Estimated Monthly Maintenance (11)	Lighting Cost Estimate (12)=(5+10+11)
							Annual (8)	Monthly (9)			
High Pressure Sodium (HPS)											
9,500 Lumen	\$316.28		583.17	\$899.45	\$10.82	\$35.70	484	40.3	\$2.42	\$2.98	\$16.22
16,000 Lumen	\$323.32		583.17	\$906.49	\$10.91	\$36.10	704	58.7	\$3.53	\$3.01	\$17.45
22,000 Lumen	\$356.33		583.17	\$939.50	\$11.31	\$34.21	1,012	84.3	\$5.06	\$2.85	\$19.22
50,000 Lumen	\$401.64		583.17	\$984.81	\$11.85	\$34.49	2,000	166.7	\$10.01	\$2.87	\$24.73
High Pressure Sodium (HPS)											
9,500 Lumen	\$316.28		1,790.13	\$2,106.41	\$25.35	\$35.70	484	40.3	\$2.42	\$2.98	\$30.74
16,000 Lumen	\$323.32		1,790.13	\$2,113.45	\$25.43	\$36.10	704	58.7	\$3.53	\$3.01	\$31.97
22,000 Lumen	\$356.33		1,790.13	\$2,146.46	\$25.83	\$34.21	1,012	84.3	\$5.06	\$2.85	\$33.74
50,000 Lumen	\$401.64		1,790.13	\$2,191.77	\$26.37	\$34.49	2,000	166.7	\$10.01	\$2.87	\$39.26

	FCCRR 20-Yr Inv Life
Return	7.71%
Depreciation	3.08%
F.I.T.	2.03%
Prop Taxes, Adm & Gen'l	1.62%
Annual Total	14.44%
Monthly Total FCCRR	1.20%

Street Lighting (SL) Cost of Service
 Test Year Ended 3/31/2013

Demand-Related Revenue Reqmt	\$129,743
Energy-Related Revenue Reqmt	293,154
Customer-Related Revenue Requirement	
O&M Expenses (Excl. A&G)	207,890
Taxes Other	29,206
State Income Tax	28,804
Less: Account 585	144,034
Account 596	52,768
B&A Rev Excl Direct Ltg Cost	\$491,995
Class Metered Energy	8,190,082
Energy Rate (\$/kWh)	\$0.06007

Kentucky Power Company
 Cogen Rate Design
 Twelve Months Ended September 30, 2014

I. **Assumptions**

	Variable	Value
A) Capital Cost per kW of Capacity	V	\$828 /kW
B) Weighted Cost of Capital (Workpaper S-2)	R	7.71%
C) Carrying Charge Rate	CCR	12.32%
D) Operation & Maintenance Cost per Year (Fixed & Variable)	O	\$20.05 /kW
E) Line Losses	L	7.90%
F) Estimated Unit Life	N	30 years
G) Present Value of Carrying Charge for \$1 Investment for N years	D	1.4258
H) Fixed Operation and Maintenance Cost Escalation Rate	IO	1.50%
I) Construction Cost Escalation Rate	IP	1.50%

II. **Calculation of Present Value of Carrying Charge**

$$D = CCR \times \frac{(1 + R)^N - 1}{R \times (1 + R)^N}$$

$$D = 12.32\% \times \frac{8.2828}{0.7157} = 1.4258$$

Kentucky Power Company
 Cogen Rate Design
 Twelve Months Ended September 30, 2014

III. **Calculation of Unadjusted Monthly Avoided Cost of Capacity**

$$C = \left(\frac{1}{12}\right) \times \left[\frac{\left(D \times V \times \frac{S1}{S2} \times S3 \right) + (S4 \times S5)}{S6} \right]$$

$$S1 = 1 - \frac{1 + IP}{1 + R}$$

$$S2 = 1 - \left(\frac{1 + IP}{1 + R} \right)^N$$

$$S3 = (1 + IP)^{(T-1)}$$

$$S4 = O \times \left(\frac{1 + IO}{1 + R} \right)$$

$$S5 = (1 + IO)^{(T-1)}$$

$$S6 = 1 - \frac{L}{2}$$

Calculation for First Year

T =	1		
S1 =	0.0577	S4 =	18.8940
S2 =	0.8316	S5 =	1.0000
S3 =	1.0000	S6 =	0.9605

$$C = \left(\frac{1}{12}\right) \times \left[\frac{\left(1.4258 \times 828 \times \frac{0.0577}{0.8316} \times 1 \right) + (5.6729 \times 1)}{0.9605} \right]$$

C = \$8.74

Calculation for Second Year

T =	2		
S1 =	0.0577	S4 =	18.8940
S2 =	0.8316	S5 =	1.0150
S3 =	1.0150	S6 =	0.9605

C = \$8.87

Calculation for Third Year

T =	3		
S1 =	0.0577	S4 =	18.8940
S2 =	0.8316	S5 =	1.0302
S3 =	1.0302	S6 =	0.9605

C = \$9.00

Three Year Average Avoided Cost of Capacity = \$8.87
 TOD Measurement

Three Year Average Avoided Cost of Capacity = \$3.70
 Standard Measurement

Kentucky Power Company
 Cogen Rate Design
 Twelve Months Ended September 30, 2014

Cost Calculations (Support Page 1, Assumptions A & D)

I. Fixed Operations & Maintenance Cost per kW (2014 Dollars)

Fixed Operations & Maintenance Cost		13.89 mills/kWh
Hours per Year	x	8,760 hours
Unit Size	x	171,000 kW
Planned Outage Rate	x	10.00%
Total Fixed O&M Cost		\$2,080,666 /year
Unit Size	/	171,000 kW
Per Unit Fixed O&M Cost		\$12.17 /kW

II. Variable Operations & Maintenance Cost per kW (2014 Dollars)

Variable Operations & Maintenance Cost		9.00 mills/kWh
Hours per Year	x	8,760 hours
Unit Size	x	171,000 kW
Planned Outage Rate	x	10.00%
Total Variable O&M Cost		\$1,348,164 /year
Unit Size	/	171,000 kW
Per Unit Variable O&M Cost		\$7.88 /kW

III. Total Operations & Maintenance Cost per kW (2014 Dollars)

Fixed O&M Cost		\$12.17 /kW
Variable O&M Cost	+	7.88 /kW
Total O&M Cost (Page 1, Assumption D)		\$20.05 /kW

Kentucky Power Company
 Cogen Rate Design
 Twelve Months Ended September 30, 2014

I. Calculation of Annual Carrying Charge Rate (Page 1, Assumption C)

	<u>Variable</u>	<u>Value</u>
Weighted Cost of Capital	R	7.71%
Property Tax Rate:		
Account 4081005		13,307,719
Electric Plant in Service	/	2,015,831,095
Property Tax Rate	a	0.66%
Insurance Rate:		
Account 9240000		513,894
Electric Plant in Service	/	2,015,831,095
Insurance Rate	p	0.03%
Depreciation Rate	d	1.71%
Composite Tax Rate	ct	39.03%
Book Depreciation	bd	3.33%
Rate on Debt Capital	b	5.53%
Debt Ratio	dr	60.46%

$$CCR = R + a + p + d + \left[\left(\frac{ct}{1-ct} \right) \times (R + d - bd) \times \left(\frac{R - (b \times dr)}{R} \right) \right]$$

CCR = **12.32%**

Kentucky Power Company
 Cogen Rate Design
 Twelve Months Ended September 30, 2014

I. <u>Energy Payment Calculation *</u>	<u>On-Peak</u>	<u>Off-Peak</u>	<u>Non-TOD</u>
A. <u>Potential Loss Savings</u>			
Primary Losses			5.80%
Divided by 2	/		2
Loss Adjustment (Potential Loss Savings)			2.90%
B. <u>Time-of-Day Energy Payments</u>			
Avoided Energy Costs (2014-2016 Average)	4.51	3.09	c/kWh
Divided by (1 - Loss Savings)	/	/	
Time-of-Day Energy Payments	4.64	3.18	c/kWh
C. <u>Non-Time-of-Day Energy Payment</u>			
Time-of-Day Energy Payments	4.64	3.18	c/kWh
Hours per Year	x	x	hours
	3,654	5,106	
Weighted Average of Hourly TOD Payments	16,955	16,237	33,192
Hours Per Year			8,760
Non-Time-of-Day Energy Payment			3.79 c/kWh

* On-Peak Period is 7am - 9pm, Monday through Friday
 Off-Peak Period is all other hours

II. Demand and Energy Loss Calculations **

<u>System</u>	<u>Demand</u>	<u>Energy</u>
Transmission	4.2%	3.5%
Subtransmission	1.4%	0.9%
Primary	2.1%	1.4%
Compound Loss Factor	7.9%	5.8%

** Assuming COGEN/SPP Service at Primary

Kentucky Power Company
 Cogen Rate Design
 Twelve Months Ended September 30, 2014

I. <u>Annual Carrying Charge Rates</u>	<u>Variable</u>	<u>Value</u>
Fixed Costs		12.3%
O&M		3.8%
Carrying Costs	CC	16.1%

II. <u>Charges</u>		
Contingencies		5%
Stores Expense		21%
Total Charges on Material	MC	26%
Labor		52%
Transportation Expense		29%
Total Charges on Labor	LC	81%

III. <u>Overheads</u>		
Company Construction Overheads	OC	17%

IV. Monthly Charge on Incremental Material

IM = Incremental Material Cost
 IL = Incremental Labor Cost (50% of Material) = 0.5 x IM

$$\text{Monthly Charge on IM} = (1 + OC) \times [(1 + MC) \times IM + (1 + LC) \times IL] \times \frac{CC}{12}$$

Monthly Charge on IM = **3.40%** of Incremental Material Cost

Kentucky Power Company
 Cogen Rate Design
 Twelve Months Ended September 30, 2014

V. Monthly Meter Charges

	<u>Incremental Material (IM)</u>	<u>Monthly Charge</u> 3.40%	<u>Average Charge</u>
Standard Measurement			
<u>Single Phase</u>			
Option 2 - Primary - Transformer Rated	391	\$13.29	
Option 2 - Secondary - Self-Contained	38	1.29	
Option 3 - Primary - Transformer Rated	391	13.29	
Option 3 - Secondary - Transformer Rated	391	13.29	
Option 3 - Secondary - Self Contained	38	1.29	
Total		\$ 42.45 / 5 =	\$8.49
		Use:	\$8.50
<u>Polyphase</u>			
Option 2 - Primary - Transformer Rated	391	\$13.29	
Option 2 - Secondary - Self-Contained	230	7.82	
Option 3 - Primary - Transformer Rated (or Sec. >200 Amps)	391	13.29	
Option 3 - Secondary - Transformer Rated (Below 200 Amps)	391	13.29	
Option 3 - Secondary - Self Contained (Below 200 Amps)	230	7.82	
Total		\$ 55.51 / 5 =	\$11.10
		Use:	\$11.10
Time-of-Day Measurement			
<u>Single Phase</u>			
Option 2 - Primary - Transformer Rated	400	\$13.60	
Option 2 - Secondary - Self-Contained	96	3.26	
Option 3 - Primary - Transformer Rated	400	13.6	
Option 3 - Secondary - Transformer Rated	400	13.6	
Option 3 - Secondary - Self Contained	38	1.29	
Total		\$ 45.35 / 5 =	\$9.07
		Use:	\$9.05
<u>Polyphase</u>			
Option 2 - Primary - Transformer Rated	400	\$13.60	
Option 2 - Secondary - Self-Contained	239	8.13	
Option 3 - Primary - Transformer Rated	400	13.6	
Option 3 - Secondary - Transformer Rated	400	13.6	
Option 3 - Secondary - Self Contained	239	8.13	
Total		\$ 57.06 / 5 =	\$11.41
		Use:	\$11.40

Kentucky Power Company
 Cogen Rate Design
 Twelve Months Ended September 30, 2014

Section 292.302(b)(1)

KENTUCKY POWER COMPANY
 ESTIMATED "AVOIDED COSTS" OF ENERGY
FOR ASSUMED LEVELS OF COGENERATION PURCHASES
 2014 (Aug Dec) - 2019
 (Cents Per Kilowatt-Hour)

	<u>ASSUMED COGENERATION PURCHASE LEVEL</u>			
	<u>First</u>		<u>Second</u>	
	<u>100-MW</u>	<u>Block</u>	<u>100-MW</u>	<u>Block</u>
	<u>Peak</u>	<u>Off-Peak</u>	<u>Peak</u>	<u>Off-Peak</u>
2014 (Aug-Dec)	3.87	2.91	3.87	2.91
2015	3.99	2.80	3.99	2.80
2016	5.67	3.55	5.67	3.55
2017	5.91	3.87	5.91	3.87
2018	5.98	3.97	5.98	3.97
2019	6.05	4.06	6.05	4.06

Note: The peak costing period is 0700 to 2100 local time Monday through Friday. All other hours comprise the off-peak costing period. Energy costs are expressed in current-year dollars.

Kentucky Power Company
 Cogen Rate Design
 Twelve Months Ended September 30, 2014

I. Calculation of Cost Escalation Rates *

<u>Year</u>	<u>Rate</u>	<u>Cumulative Escalation Rates</u>
2014	2.1%	1.02068
2015	2.6%	1.04692
2016	2.2%	1.07047
2017	2.0%	1.09156
2018	1.8%	1.11070
2019	1.6%	1.12793
2020	1.3%	1.14250
2021	1.3%	1.15696
2022	1.3%	1.17230
2023	1.3%	1.18793
2024	1.3%	1.20330
2025	1.3%	1.21866
2026	1.3%	1.23422
2027	1.3%	1.24998
2028	1.3%	1.26595
2029	1.3%	1.28211
2030	1.3%	1.29849
2031	1.3%	1.31507
2032	1.3%	1.33186
2033	1.3%	1.34887
2034	1.3%	1.36609
2035	1.3%	1.38354
2036	1.3%	1.40121
2037	1.3%	1.41910
2038	1.3%	1.43722
Compound Escalation Rate:	2014 to 2038 =	1.43722
Number of Years		25
Average Rate (25th Root)		1.5%

* Based upon Moody's Economy.com, GDP Chain Price Deflator

II. Calculation of Meter O&M Expense as a % of Original Cost

Account 586 - Operation	853,621
Account 597 - Maintenance	79,342
Total O&M	932,963
Account 370 - Meter Plant	24,511,141
O&M Percentage	3.8%