KENTUCKY POWER COMPANY DEPRECIATION STUDY AS OF DECEMBER 31, 2004 CALCULATION OF AVERAGE REMAINING LIFE BIG SANDY PLANT ACCOUNT 316 RETIREMENT YEARS - UNIT 1 2015; UNIT 2 2034

ANNUAL INTERIM RETIREMENT RATE

YEAR	AMOUNT <u>RETIRED</u>	REM. LIFE (YEARS)	DOLLAR <u>YEARS</u>	AVERAGE <u>REM. LIFE</u>
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032	29,987 26,348 26,348	$\begin{array}{r} 9.5\\ 10.5\\ 11.5\\ 12.5\\ 13.5\\ 14.5\\ 15.5\\ 16.5\\ 17.5\\ 18.5\\ 19.5\\ 20.5\\ 21.5\\ 22.5\\ 23.5\\ 24.5\\ 25.5\\ 26.5\\ 26.5\\ 27.5\end{array}$	$\begin{array}{c} 14,994\\ 44,981\\ 74,968\\ 104,955\\ 134,942\\ 164,930\\ 194,917\\ 224,904\\ 254,891\\ 284,878\\ 8,622,161\\ 303,000\\ 329,348\\ 355,695\\ 382,043\\ 408,391\\ 434,739\\ 461,087\\ 487,434\\ 513,782\\ 540,130\\ 566,478\\ 592,826\\ 619,173\\ 645,521\\ 671,869\\ 698,217\\ 724,565\end{array}$	
2033 2034	26,348 4,923,663		750,912 145,248,073	
TOTALS	6,518,954		164,854,802	25.29
	12/31/04 nt of Unit 1 in 20 irement in year 2		6,518,954 -791,171 <u>-4,923,663</u> <u>804,120</u>	

KENTUCKY POWER COMPANY DEPRECIATION STUDY AS OF DECEMBER 31, 2004 CALCULATED DEPRECIATION RESERVE STEAM PRODUCTION PLANT

ACCOUNT	PLANT BALANCE AT 12-31-04	AVERAGE AGE	AVERAGE REM. LIFE	AVERAGE LIFE	NET SALVAGE	% REM. LIFE TO AVG. LIFE	CALCULATED RESERVE %	CALCULATED RESERVE W/O NET SALVAGE	CALCULATED RESERVE WITH NET SALVAGE
BIG SANDY									
311	36,149,758	26.08	25.98	52.06	-1%	49.90%	50.10%	18,109,598	18,290,694
312	324,538,694	9.97	24.27	34.24	-12%	70.88%	29.12%	94,499,147	105,839,044
314	73,038,983	20.85	24.19	45.04	-9%	53.71%	46.29%	33,811,341	36,854,362
315	13,742,601	32.06	26.27	58.33	-3%	45.04%	54.96%	7,553,365	7,779,966
316	<u>6,518,954</u>	22.08	25.29	47.37	-4%	53.39%	46.61%	<u>3,038,600</u>	<u>3,160,144</u>
Total	<u>453,988,990</u>							157,012,051	171,924,211

KENTUCKY POWER COMPANY Transmission Plant Net Salvage Test

7,138,748

96,266

<u>352</u> <u>357</u> Year <u>353</u> <u>354.0</u> <u>355.0</u> <u>356.0</u> <u>358</u> Total Removal Weighted % (000) -51% 1990 1,248 143,432 68,846 12,894 0 0 0 226,420 -115 1991 4,839 703,871 1,436 64,021 54,844 0 0 829,011 -31% -258 1992 982 1,446,425 2,344 72,454 0 0 1,683,236 40% 666 161,031 1993 540,897 286,574 134,392 0 0 976,421 -619 8,738 5,820 -63% 522 51,836 12,669 0 0 872,511 97 1994 807,484 0 11% 1995 2,589 143,408 50,733 0 0 0 196,730 -49% -97 0 58,862 0 0 143,679 -2% -3 1996 11,283 32,475 894 40,165 1997 85,900 0 0 1,364,345 1% 17 6,190 1,056,611 9,923 205,721 170,083 462,151 1998 373 165,269 0 126,426 0 0 26% 119 1999 852 357,124 459,086 315,114 0 0 1,132,176 198 0 18% 2000 0 0 307,215 0 0 727,892 -4% -30 308,529 112,148 -297% 2001 0 406 129,175 0 0 242,374 -720 104,157 8,636 0 0 24 2002 352 167,185 4,473 169,000 107,845 448,855 5% 102,595 590,515 2003 0 23,422 0 0 -769 462,374 2,124 -130% <u>162</u> 2004 0 699,507 0 358,451 55,179 <u>0</u> 0 1,113,137 15% <u>37,968</u> <u>2,464,447</u>

1,272,024

0

<u>0</u>

EVALUATION BASED ON 1990-2004 ACTUAL

TOTAL

	352	353	354.1	355.1	356.1	357	358	Total
Total Retmts	37,968	7,138,748	96,266	2,464,447	1,272,024	0	0	11,009,453
Gross Removal %	0	0	-35	-50	-5	0	0	-12
Gross Removal \$	0	0	-33,693	-1,232,224	-63,601	0	0	-1,329,518

Retirements

25-Jan-06

11,009,453

-12%

<u>-1,328</u>

KENTUCKY POWER COMPANY Distribution Plant Net Salvage Test

					R	etirements									
Year		<u>361</u>	<u>362</u>	<u>364</u>	<u>365</u>	<u>366</u>	<u>367</u>	<u>368</u>	<u>369</u>	370	<u>371</u>	<u>373</u>	<u>Total</u>	Removal %	Weighted (000)
	1990	2,108	289,306	2,752,129	1,114,551	7,201	11,675	959,910	396,795	363,340	261,542	73,803	6,232,360	2%	128
	1991	4,188	308,865	1,480,558	1,060,633	1,608	19,317	1,219,271	456,573	293,127	317,371	48,604	5,210,115	-18%	-940
	1992	0	107,270	1,465,072	909,965	0	69,723	1,618,101	415,580	381,788	292,580	21,277	5,281,356	-20%	-1,064
	1993	972	176,465	1,304,149	758,447	0	9,042	1,105,636	696,650	502,234	349,338	27,095	4,930,028	-8%	-374
	1994	19,675	267,934	144,412	1,379,552	199	18,365	1,164,053	562,102	576,545	354,006	37,451	4,524,294	3%	155
	1995	2,757	287,579	1,671,011	2,549,129	5,842	19,071	1,313,309	497,449	631,063	350,093	30,017	7,357,320	1%	39
	1996	5,030	454,597	1,128,837	1,662,236	1,248	37,421	1,578,917	475,561	517,207	246,115	18,665	6,125,834	2%	95
	1997	6,522	734,060	1,542,829	1,666,505	4,035	46,345	2,186,374	522,610	836,156	529,850	26,937	8,102,223	6%	446
	1998	57,059	430,669	1,082,705	867,054	1,777	16,729	1,560,837	431,172	723,727	553,968	20,374	5,746,071	9%	520
	1999	462	133,384	779,722	767,232	2,608	11,656	1,278,242	344,602	979,544	465,115	15,450	4,778,017	4%	179
	2000	0	430,936	1,459,576	1,553,565	6,479	36,661	1,443,110	569,287	1,709,961	637,697	26,217	7,873,489	16%	1,286
:	2001	0	543,501	1,402,184	1,323,285	9,421	11,194	1,029,459	390,080	639,511	563,686	22,268	5,934,589	-12%	-728
	2002	0	163,287	1,100,199	2,020,300	16,953	71,261	1,055,795	508,684	970,185	370,170	27,698	6,304,532	54%	3,401
	2003	0	448,926	770,546	1,665,159	2,929	23,089	1,073,924	630,850	624,632	155,458	19,163	5,414,676	7%	367
	2004	<u>370</u>	325,880	3,264,700	1,048,651	2,052	37,052	1,076,234	<u>511,999</u>	832,607	<u>115,921</u>	<u>33,892</u>	7,249,358	13%	<u>966</u>
TOTAL		<u>99,143</u>	5,102,659	21,348,629	<u>20,346,264</u>	<u>62,352</u>	<u>438,601</u>	19,663,172	7,409,994	10,581,627	5,562,910	<u>448,911</u>	<u>91,064,262</u>	5%	<u>4,477</u>

EVALUATION BASED ON 1990-2004 ACTUAL

	361	362	364	365	366	367	368	369	370	371	373	Total
Total Retmts	99,143	5,102,659	21,348,629	20,346,264	62,352	438,601	19,663,172	7,409,994	10,581,627	5,562,910	448,911	91,064,262
Gross Removal %	0	0	-40	20	0	15	25	15	25	0	-5	5
Gross Removal \$	0	0	-8,539,452	4,069,253	0	65,790	4,915,793	1,111,499	2,645,407	0	-22,446	4,245,845

25-Jan-06

KENTUCKY POWER COMPANY General Plant Salvage Test

25-Jan-06

					R	Retirements							
Year		<u>390</u>	<u>391</u>	<u>392</u>	<u>393</u>	<u>394</u>	<u>395</u>	<u>396</u>	<u>397</u>	<u>398</u>	<u>Total</u>	<u>Salvage</u> %	Weighted (000)
	1990	102,966	60,961	0	0	13,247	0	0	18,191	50,179	245,544	9%	21
	1991	54,531	24,275	55,930	524	188	0	0	27,394	2,396	165,238	-27%	-44
	1992	87,473	17,127	0	48,111	57,500	0	0	135,867	4,563	350,641	8%	26
	1993	1,500	3,279	0	0	7,269	971	0	69,700	176,925	259,644	-26%	-67
	1994	8,581	1,147	0	3,479	0	0	0	18,899	2,416	34,522	11%	4
	1995	0	6,412	0	0	1,329	0	0	523	0	8,264	-35%	-3
	1996	290,552	4,438	0	0	734	7,565	0	157,954	63,224	524,467	16%	86
	1997	0	1,923	0	0	1,113	0	0	219,173	14,210	236,419	14%	33
	1998	3,693	81,954	11,241	1,690	25,510	29,020	0	982,587	34,504	1,170,199	0%	0
	1999	26,757	0	0	0	0	0	0	0	0	26,757	-36%	-10
	2000	0	15,335	0	0	2,272	5,215	0	0	0	22,822	16%	4
	2001	182,029	0	0	0	0	0	0	47,157	0	229,186	-32%	-74
	2002	160,071	0	0	0	0	0	0	51,409	0	211,480	0%	0
	2003	1,426,227	5,790	38,129	7,347	5,105	2,558	0	244,213	0	1,729,369	-14%	-245
	2004	10,330,436	<u>3,747</u>	<u>0</u>	<u>779</u>	<u>3,477</u>	<u>3,405</u>	<u>0</u>	<u>874,410</u>	<u>0</u>	<u>11,216,254</u>	16%	<u>1,741</u>
TOTAL		<u>12,674,816</u>	226,388	<u>105,300</u>	<u>61,930</u>	<u>117,744</u>	<u>48,734</u>	<u>0</u>	2,847,477	<u>348,417</u>	<u>16,430,806</u>	9%	<u>1,472</u>

EVALUATION BASED ON 1990-2004 ACTUAL

	<u>390</u>	<u>391</u>	<u>392</u>	<u>393</u>	<u>394</u>	<u>395</u>	<u>396</u>	<u>397</u>	<u>398</u>	Total
Total Retmts	12,674,816	226,388	105,300	61,930	117,744	48,734	0	2,847,477	348,417	16,082,389
Gross Salvage, %	10	0	0	0	0	0	0	10	0	10
Gross Salvage \$	1,267,482	0	0	0	0	0	0	284,748	0	1,552,229

KPCO Production Detail

		Original			
Reserve	Activity	Cost			Net
Account	Year	Retired	Salvage	Removal	Salvage
			Ū.		•
10810000	1960	-	450	3,141	#DIV/0!
10810000	1961	-	365	250	#DIV/0!
10810000	1962	-	-	-	#DIV/0!
10810000	1963	-		-	#DIV/0!
10810000	1964	12,972	2,350	559	14%
10810000	1965	8,393	63	1,353	-15%
10810000	1966	28,356	1,639	1,309	1%
10810000	1967	72,923	50,088	207	68%
10810000	1968	128,116	3,717	11,276	-6%
10810000	1969	6,226	-	-	0%
10810000	1970	765,565	38,983	20,261	2%
10810000	1971	126,096	2,831	42,474	-31%
10810000	1972	26,254	8,641	3,092	21%
10810000	1973	40,145	3,905	76,655	-181%
10810000	1974	172,218	661	756	0%
10810000	1975	123,712	8,539	28,002	-16%
10810000	1976	1,145,237	9,669	56,912	-4%
10810000	1977	753,812	78,585	111,093	-4%
10810000	1978	280,923	1,491	20,757	-7%
10810000	1979	1,978,089	83,069	278,953	-10%
10810000	1980	1,539,921	5,630	126,933	-8%
10810000	1981	1,729,730	3,569	573,164	-33%
10810000	1982	1,674,621	55,571	704,047	-39%
10810000	1983		12,461	49,042	-3%
10810000	1984		724	112,419	-19%
10810000			69,625	537,959	-459%
10810000	1986		69,408	10,759	4%
10810000	1987		671,733	386,860	22%
10810000	1988		146,691	1,881,634	-140%
10810000	1989		1,495,274	264,645	33%
10810000	1990	1,974,433	435,816	814,536	-19%
10810000	1991	1,154,968	25,400	311,112	-25%
10810000	1992	2,617,525	866,774	427,952	17%
10810000	1993		(34,358)		-50%
10810000	1994	3,969,598	60,472	2,038,522	-50%
10810000	1995	6,338,609	1,919,772	2,724,820	-13%
10810000	1996	2,883,635	(108,297)	2,268,116	-82%
10810000	1997	8,213,501	1,622,235	1,652,784	0%
10810000	1998	1,885,004	(109,746)		-117%
10810000	1999		3,780	8,267	-1%
10810000	2000	855,616	1,711	203,653	-24%
10810000	2001	543,659	172,103	(80,513)	46%
10810000	2002		30,879	55,395	-3%
10810000	2003		(28,698)		-9%
10810000	2004		39,639	4,362,183	-138%
		, <u>,</u> = , .	-,	· , · · · · · · · · · · · ·	, •
Total		75,404,442	7,723,214	25,342,447	-23%
1990-2004		55,410,983	4,897,482	20,037,935	-27%

Decerve	Activity	Original			Net
Reserve Account	Activity Year	Cost Retired	Salvage	Removal	Salvage
/10004111	rour	Rotinga	Galvage	Kentoval	Odivago
10850000	1954	34,583	15,298	7,180	23%
10850000	1955	47,135	23,025	7,889	32%
10850000	1956	22,861	5,024	5,258	-1%
10850000	1957	134,912	42,741	10,113	24%
10850000	1958	89,413	39,278	23,451	18%
10850000	1959	109,562	56,914	10,968	42%
10850000	1960	120,308	25,114	12,000	11%
10850000	1961	97,570	58,122	19,975	39%
10850000	1962	105,122	48,139	35,762	12%
10850000	1963	81,024	76,939	10,727	82%
10850000	1964	44,999	2,529	8,623	-14%
10850000	1965	456,939	129,041	138,735	-2%
10850000	1966	202,844	54,393	73,574	-9%
10850000	1967	378,070	64,988	112,497	-13%
10850000	1968	241,351	13,413	57,522	-18%
10850000	1969	600,025	103,002	103,107	0%
10850000	1970	52,004	17,779	12,589	10%
10850000	1971	153,003	55,726	28,344	18%
10850000	1972	166,793	56,538	36,030	12%
10850000	1973	238,120	192,316	49,235	60%
10850000	1974	230,313	339,163	45,869	127%
10850000	1975	137,446	129,176	69,379	44%
10850000	1976	789,389	143,997	32,216	14%
10850000	1977	250,212	225,156	1,431	89%
10850000	1978	422,125	(37,889)	(17,686)	-5%
10850000	1979	138,790	60,197	145,231	-61%
10850000	1980	740,426	303,867	118,565	25%
10850000	1981	1,235,156	137,039	72,785	5%
10850000	1982		306,936	146,727	46%
10850000	1983	133,764	137,997	79,939	43%
10850000	1984		51,497	68,152	-7%
10850000	1985		306,076	38,164	66%
10850000	1986		22,842	175,660	-25%
10850000	1987		197,229	69,955	62%
10850000	1988	325,128	276,527	110,394	51%
10850000	1989		370,387	122,039	26%
10850000	1990		64,159	296,114	-51%
10850000	1991	863,065	59,121	327,755	-31%
10850000	1992		1,163,291	422,506	40%
10850000	1993		(228,274)		-63%
10850000	1994		194,052	92,692	11%
10850000	1995		42,611	151,723	-49%
10850000	1996			(6,225)	-2%
10850000	1997		51,684	39,136	1%
10850000	1998	•	284,212	215,982	26%
10850000	1999		231,775	33,535	18%
10850000	2000	727,893	23,740	53,562	-4%
10850000	2001	243,225	101,608	823,970	-297%
10850000	2002		(31,282)	, ,	5%
10850000	2003	•	305,945	1,074,786	-130%
10850000	2004	1,107,137	365,788	204,960	15%
Total		21,087,254	6,673,302	5,964,144	3%
1990-2004		10,526,984	2,622,786	3,921,745	-12%

KPCO Distribution Detail

		Original			
Reserve	Activity	Cost			Net
Account	Year	Retired	Salvage	Removal	Salvage
10860000	1954	345,614	164,293	66,201	28%
10860000	1955		163,818	68,960	20%
10860000	1955		175,639	81,844	28%
10860000	1950	560,530	243,234	141,931	18%
					18%
10860000	1958 1959	505,375 624,939	206,808 259,031	144,792 152,087	12%
10860000 10860000	1960	492,849	271,181	161,636	22%
10860000	1960	819,969	381,111	170,331	26%
10860000	1961		299,388	192,682	19%
10860000	1962		279,116	194,420	12%
10860000	1964		304,668	189,822	15%
10860000	1965		374,123	239,135	13%
10860000	1966		450,349	285,103	15%
10860000	1967	1,463,163	413,889	342,901	5%
10860000	1968		670,448	479,783	14%
10860000	1969		646,533	347,617	19%
10860000	1970		400,222	357,897	4%
10860000	1971	1,315,603	543,957	401,721	11%
10860000	1972		752,589	490,837	18%
10860000	1973		703,812	491,738	12%
10860000	1974		921,165	527,796	31%
10860000	1975		633,350	485,488	10%
10860000	1976		905,056	680,443	13%
10860000	1977		1,032,217	928,730	6%
10860000	1978		1,622,814	952,797	24%
10860000	1979		1,368,931	1,048,294	13%
10860000	1980		1,455,926	1,423,814	1%
10860000	1981	4,492,306	1,883,382	1,737,241	3%
10860000			1,586,478	1,503,023	3%
10860000	1983		1,560,432	1,361,570	5%
10860000			1,275,047	1,464,480	-8%
10860000	1985		1,033,246	1,315,547	-8%
10860000	1986	4,122,421	1,703,914	1,814,294	-3%
10860000	1987	5,062,869	2,341,368	1,686,747	13%
10860000	1988	5,092,695	2,009,198	1,881,879	3%
10860000	1989	7,285,672	5,727,263	1,888,999	53%
10860000	1990		2,563,490	2,433,166	2%
10860000	1991		1,639,592	2,601,095	-18%
10860000	1992		1,220,353	2,236,974	-20%
10860000	1993		1,829,402	2,197,784	-8%
10860000	1994		2,155,099	1,954,453	3%
10860000	1995		2,159,120	2,119,861	1%
10860000	1996		1,342,053	1,245,388	2%
10860000	1997	• •	1,918,643	1,444,506	6%
10860000			1,292,253	804,413	9%
10860000			440,710	262,682	4%
10860000			1,501,740	213,654	16%
10860000			2,190,111	2,918,529	-12%
10860000			5,075,585	1,403,071	54%
10860000			1,560,605	1,192,686	7%
10860000	2004	7,250,554	2,946,107	1,979,653	13%
Total		164,109,276	64,598,859	50,710,495	8%
, otai		10-1,100,270	07,000,000	00,710,400	0.70
1990-2004	•	93,177,968	29,834,863	25,007,915	5%

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		Original			
	Activity	Cost	a .	~ .	Net
	Year	Retired	Salvage	Removal	Salvage
10872000	1954	6,604	1,932	857	16%
10872000	1955	4,156	1,153	296	21%
10872000	1956	11,547	1,175	56	10%
10872000	1957	17,234	741	261	3%
10872000	1958	15,852	631	1,442	-5%
10872000	1959	7,961	315	238	1%
10872000	1960	35,975	3,171	2,193	3%
10872000	1961	32,219	1,414	949	1%
10872000	1962	5,803	3,494	1,607	33%
10872000	1963	29,313	2,469	3,333	-3%
10872000	1964	66,108	570	4,221	-6%
10872000	1965	162,447	888	3,091	-1%
10872000	1966	2,451	342	9,583	-377%
10872000	1967	12,153	3,237	(2,422)	47%
10872000	1968	24,450	1,281	623	3%
10872000	1969	97,196	(3,795)	2,768	-7%
10872000	1970	11,186	2,888	103	25%
10872000	1971	2,926	(2,089)	71	-74%
10872000	1972	11,324	514	348	1%
10872000	1973	16,756	1,921	255	10%
10872000	1974	36,359	5,212	1,097	11%
10872000	1975	16,603	747	162	4%
10872000	1976	43,932	2,256	63	5%
10872000	1977	20,375	848	206	3%
10872000	1978	29,848	449	947	-2%
10872000	1979	110,455	38,474	1,771	33%
10872000	1980	(26,283)		(193)	-1446%
10872000 10872000	1981 1982	62,146 114,845	2,204 37	- (300)	4% 0%
10872000	1982	56,853	69	(624)	1%
10872000	1984	28,929	1,152	624	2%
10872000	1985	180,319	1,726	(635)	1%
10872000	1986	61,942	603	3,785	-5%
10872000	1987	65,632	4,797	2,604	3%
10872000	1988	66,486	1,612	-,	2%
10872000	1989	80,142	51	11,628	-14%
10872000	1990	1,063,124	141,149	50,399	9%
10872000	1991	289,538	21,722	99,427	-27%
10872000	1992	704,613	49,167	(3,992)	8%
10872000	1993	437,544	2,090	114,740	-26%
10872000	1994	347,501	37,443	804	11%
10872000	1995		11,107	47,957	-35%
10872000	1996	451,507	4,006	(70,222)	16%
10872000	1997	295,506	68,506	27,111	14%
10872000	1998	1,326,363	-	524	0%
10872000	1999	26,757	(9,336)	393	-36%
10872000	2000	224,558	~	(35,438)	16%
10872000	2001	27,540	-	8,861	-32%
10872000	2002	-	-	-	#DIV/0!
10872000	2003	1,740,509	(100,160)	146,609	-14%
10872000	2004	12,449,685	1,932,476	-	16%
Total		21,011,618	2,620,451	438,181	10%
1990-2004		19,489,374	2,158,170	387,173	9%

10%

1

KENTUCKY POWER COMPANY Depreciation Study as of December 31, 2004 Production Plant

This investment consists of two generating units located on the Big Sandy River near Louisa, Kentucky. Unit 1 is rated at 260 MW and was placed in service in 1963. Unit 2 is rated at 800MW and was placed in service in 1969. The estimated final retirement dates for the units were provided by the Asset and Outage Planning Section of AEP's Generating Division.

AEP recently announced plans to install flue gas desulfurization (FGD) equipment to reduce sulfur dioxide emmissions on Unit 2 at Big Sandy Plant. This additional investment in pollution control equipment is expected to result in operating Unit 2 to year 2034. There are currently no plans to install FGD equipment on Unit 1. Due to environmental constraints, the current plans are to retire Unit 1 in year 2015.

Life Analysis

Interim retirements for the Big Sandy Plant were determined by analyzing past history for each of the accounts in the production plant function. Interim retirement ratio's were developed based on the period 1975 through 2004. Interim retirements are not usually considered representative of the future until the generating units have experienced a few years of actual operation. Since Unit 2 was placed in-service in 1969, the period beginning in 1975 provided for five years of operational experience.

In addition to the interim retirements experienced to date, the Selective Catalytic Reduction (SCR) system that is installed at Big Sandy Plant will have the SCR Catalysts replaced at future intervals. The AEP Engineering group provided the following details for replacement of the SCR Catalysts:

Layers 1 and 2 will be replaced in year 2009. Layer 3 will be replaced in 2007.

The original cost of the catalysts are as follows:

Layer 1	\$3,259,048
Layer 2	\$3,259,049
Layer 3	\$1,629,524

After determining the interim retirments and the retirement of the SCR catalysts, a remaining life was calculated for each of the primary production plant accounts. The surviving plant balances by primary plant account at 12/31/04 were also aged. The age of the surviving balances plus the remaining life were summed to determine the total life of the investments.

Salvage and Cost of Removal

Kentucky Power Company engaged the firm of Brandenburg Industrial Service Company to perform a conceptual demolition cost estimate for the Big Sandy Plant. The demolition cost is estimated to be \$32,000,000 in current (2004) dollars. It is appropriate to include the final retirement costs for the Big Sandy plant in depreciation rates in order to ensure that the generation of customers that are receiving service from the plant also share in the final removal costs of the plant.

There are also gross salvage and removal costs associated with the removal/replacement of equipment during the operating life of the plant. An analysis of interim retirements was made for the production plant function and the fifteen year period of 1990-2004 was used as the basis to determing a gross salvage percentage and a gross removal percentage. The estimates of salvage and removal for both the final plant retirement and the interim retirements were combined to calculate a net salvage for each plant account. That calculation is as follows:

KENTUCKY POWER COMPANY Depreciation Study as of December 31, 2004 Production Plant

Calculation of Removal and Salvage:

Interim Retirements:

Account	Interim Retirements	Gross Removal	Gross Salvage	Interim Retirement	
	(From Remaining	Percent	Percent	Net Salvage Percent	
	Life Workpaper)				
311	1,037,633	33.6%	10.2%	-23%	
312	144,478,211	33.6%	10.2%	-23%	
314	25,648,705	33.6%	10.2%	-23%	
315	1,488,647	33.6%	10.2%	-23%	
316	1,013,890	33.6%	10.2%	-23%	
Total	173,667,086				
Account	Plant In-Service at 12/31/04	Net Salvage on Interim Retirement	Final Demolition <u>Cost (a)</u>	Total Net Salvage <u>Costs</u>	Net Salvage as Percent of Plant
311					
311	36,149,758	-242,457	0	-242,457	-1%
312		•	0 0	-242,457 -33,759,222	
		-33,759,222		•	-10%
312	324,538,695	-33,759,222 -5,993,155	0	-33,759,222	-10% -8%
312 314	324,538,695 73,038,983	-33,759,222 -5,993,155 -347,842	0	-33,759,222 -5,993,155	-10% -8% -3%

Notes: (a) Costs allocated to plant accounts based on Plant-In-Service Balances at 12/31/04

Calculation of Theoretical Reserve and Depreciation Rates

A theoretical reserve was determined based on the above calculations of average age, remaining life and net salvage. The theoretical reserve was used to allocate the actual book reserve to the individual plant accounts.

Based on plant balances at 12/31/04 and the allocated book reserve, remaining life depreciation rates were calculated for each primary plant account.

KENTUCKY POWER COMPANY DEPRECIATION STUDY AS OF DECEMBER 31, 2004 CALCULATION OF AVERAGE REMAINING LIFE BIG SANDY PLANT ACCOUNT 311 RETIREMENT YEARS - UNIT 1 2015; UNIT 2 2034

ANNUAL INTERIM RETIREMENT RATE

0.0011 No Change

YEAR	AMOUNT <u>RETIRED</u>	REM. LIFE (YEARS)	DOLLAR <u>YEARS</u>	AVERAGE <u>REM. LIFE</u>
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031	$\begin{array}{c} 39,765\\ 33,346\\$	$\begin{array}{c} 0.5\\ 1.5\\ 2.5\\ 3.5\\ 4.5\\ 5.5\\ 6.5\\ 7.5\\ 8.5\\ 9.5\\ 10.5\\ 11.5\\ 12.5\\ 13.5\\ 14.5\\ 15.5\\ 16.5\\ 17.5\\ 16.5\\ 17.5\\ 18.5\\ 19.5\\ 20.5\\ 21.5\\ 22.5\\ 23.5\\ 24.5\\ 25.5\\ 26.5\end{array}$	$\begin{array}{c} 19,882\\ 59,647\\ 99,412\\ 139,177\\ 178,941\\ 218,706\\ 258,471\\ 298,236\\ 338,000\\ 377,765\\ 417,530\\ 457,294\\ 497,059\\ 536,824\\ 576,589\\ 91,067,952\\ 550,202\\ 583,548\\ 616,893\\ 650,239\\ 683,585\\ 716,930\\ 750,276\\ 783,621\\ 816,967\\ 850,312\\ 883,658\end{array}$	
2032 2033 2034	33,346 33,346 29,244,443	27.5 28.5 29.5	917,004 950,349 862,711,057	
TOTALS	36,149,758	20.0	968,006,126	26.78
			36,149,758 -5,835,587 <u>-29,244,443</u>	

<u>1,069,728</u>

Total Interim Retirements

KENTUCKY POWER COMPANY DEPRECIATION STUDY AS OF DECEMBER 31, 2004 CALCULATION OF AVERAGE REMAINING LIFE BIG SANDY PLANT ACCOUNT 312 RETIREMENT YEARS - UNIT 1 2015; UNIT 2 2034

ANNUAL INTERIM RETIREMENT RATE

YEAR	AMOUNT <u>RETIRED</u>	REM. LIFE (<u>YEARS)</u>	DOLLAR <u>YEARS</u>	AVERAGE <u>REM. LIFE</u>
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029	3,634,833 3,557,607 3,557,607 3,557,607 3,557,607 3,557,607 3,557,607 3,557,607 3,557,607 3,557,607	$\begin{array}{c} 0.5\\ 1.5\\ 2.5\\ 3.5\\ 4.5\\ 5.5\\ 6.5\\ 7.5\\ 8.5\\ 9.5\\ 10.5\\ 11.5\\ 12.5\\ 13.5\\ 14.5\\ 15.5\\ 16.5\\ 17.5\\ 18.5\\ 19.5\\ 20.5\\ 21.5\\ 22.5\\ 23.5\\ 24.5\end{array}$	1,817,417 5,452,250 9,087,083 12,721,917 16,356,750 19,991,584 23,626,417 27,261,250 30,896,084 34,530,917 38,165,751 41,800,584 45,435,417 49,070,251 52,705,084 163,216,044 58,700,512 62,258,118 65,815,725 69,373,332 72,930,939 76,488,545 80,046,152 83,603,759 87,161,366	
2030 2031 2032	3,557,607 3,557,607 3,557,607	25.5 26.5 27.5 28.5	90,718,972 94,276,579 97,834,186)
2033 2034	3,557,607 213,237,239	28.5 29.5	101,391,793 6,290,498,549	
TOTALS	324,538,695		7,903,233,327	24.35
	2/31/04 ht of Unit 1 in 201 rement in year 20		324,538,695 -6,895,234 <u>-213,237,239</u> <u>104,406,222</u>	- <u>)</u>

KENTUCKY POWER COMPANY DEPRECIATION STUDY AS OF DECEMBER 31, 2004 CALCULATION OF AVERAGE REMAINING LIFE BIG SANDY PLANT ACCOUNT 314 RETIREMENT YEARS - UNIT 1 2015; UNIT 2 2034

ANNUAL INTERIM RETIREMENT RATE

YEAR	AMOUNT <u>RETIRED</u>	REM. LIFE (YEARS)	DOLLAR <u>YEARS</u>	AVERAGE <u>REM. LIFE</u>
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034	671,959 671,959 671,959 671,959 671,959 671,959 671,959 671,959 671,959 671,959 671,959 671,959 671,959 671,959 671,959 671,959 671,959 671,959 621,590	$\begin{array}{c} 0.5\\ 1.5\\ 2.5\\ 3.5\\ 4.5\\ 5.5\\ 6.5\\ 7.5\\ 8.5\\ 9.5\\ 10.5\\ 11.5\\ 12.5\\ 13.5\\ 14.5\\ 15.5\\ 16.5\\ 17.5\\ 18.5\\ 19.5\\ 20.5\\ 21.5\\ 22.5\\ 23.5\\ 24.5\\ 25.5\\ 26.5\\ 27.5\\ 28.5\\ 29.5\end{array}$	335,979 1,007,938 1,679,897 2,351,855 3,023,814 3,695,773 4,367,731 5,039,690 5,711,648 6,383,607 7,055,566 7,727,524 8,399,483 9,071,442 9,743,400 95,275,627 10,256,234 10,877,824 11,499,414 12,742,594 13,364,184 13,985,774 14,607,364 15,228,954 15,850,544 15,850,544 16,472,134 17,093,724 17,715,314 1,437,597,514	
TOTALS	73,038,983		1,790,283,554	
	2/31/04 ht of Unit 1 in 201 rement in year 20		73,038,983 -5,474,856 <u>-48,732,119</u> <u>18,832,008</u>))

KENTUCKY POWER COMPANY DEPRECIATION STUDY AS OF DECEMBER 31, 2004 CALCULATION OF AVERAGE REMAINING LIFE BIG SANDY PLANT ACCOUNT 315 RETIREMENT YEARS - UNIT 1 2015; UNIT 2 2034

ANNUAL INTERIM RETIREMENT RATE

YEAR	AMOUNT RETIRED	REM. LIFE (YEARS)	DOLLAR <u>YEARS</u>	AVERAGE <u>REM. LIFE</u>
2005 2006 2007 2008 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027	39,854 35,604 35,6	$\begin{array}{c} 0.5\\ 1.5\\ 2.5\\ 3.5\\ 4.5\\ 5.5\\ 6.5\\ 7.5\\ 8.5\\ 9.5\\ 10.5\\ 11.5\\ 12.5\\ 13.5\\ 14.5\\ 15.5\\ 16.5\\ 17.5\\ 18.5\\ 19.5\\ 20.5\\ 21.5\\ 22.5\end{array}$	19,927 $59,780$ $99,634$ $139,487$ $179,341$ $219,194$ $259,048$ $298,902$ $338,755$ $378,609$ $418,462$ $458,316$ $498,169$ $538,023$ $577,876$ $23,328,485$ $587,473$ $623,078$ $658,682$ $694,286$ $729,891$ $765,495$ $801,100$	
2028 2029 2030 2031 2032 2033 2033	35,604 35,604 35,604 35,604 35,604 35,604 11,176,877	23.5 24.5 25.5 26.5 27.5 28.5 29.5	836,704 872,309 907,913 943,517 979,122 1,014,726 329,717,862	
TOTALS	13,742,601		367,944,167	26.77
INTERIM RETIREMENTS: Total Plant at 12/31/04 Less Retirement of Unit 1 in 2015 Less Final Retirement in year 2034 Total Interim Retirements			13,742,601 -1,465,210 <u>-11,176,877</u> <u>1,100,514</u>	

KENTUCKY POWER COMPANY DEPRECIATION STUDY AS OF DECEMBER 31, 2004 CALCULATION OF AVERAGE REMAINING LIFE BIG SANDY PLANT ACCOUNT 316 RETIREMENT YEARS - UNIT 1 2015; UNIT 2 2034

ANNUAL INTERIM RETIREMENT RATE

YEAR	AMOUNT RETIRED	REM. LIFE (YEARS)	DOLLAR <u>YEARS</u>	AVERAGE <u>REM. LIFE</u>
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033	29,987 20,348 26,348 26,348 26,348 26,348 26,348 26,348 26,348 26,348 26,348 26,348 26,348	$\begin{array}{c} 0.5\\ 1.5\\ 2.5\\ 3.5\\ 4.5\\ 5.5\\ 6.5\\ 7.5\\ 8.5\\ 9.5\\ 10.5\\ 11.5\\ 12.5\\ 13.5\\ 14.5\\ 15.5\\ 16.5\\ 17.5\\ 18.5\\ 19.5\\ 20.5\\ 21.5\\ 22.5\\ 23.5\\ 24.5\\ 25.5\\ 26.5\\ 27.5\\ 28.5\\ 27.5\\ 28.5\\ 27.5\\ 28.5\\ 27.5\\ 28.5\\ 27.5\\ 28.5\\ 27.5\\ 28.5\\ 27.5\\ 28.5\\ 27.5\\ 28.5\\ 27.5\\ 28.$	$14,994 \\ 44,981 \\ 74,968 \\ 104,955 \\ 134,942 \\ 164,930 \\ 194,917 \\ 224,904 \\ 254,891 \\ 284,878 \\ 314,865 \\ 344,853 \\ 374,840 \\ 404,827 \\ 434,814 \\ 12,727,952 \\ 434,739 \\ 461,087 \\ 487,434 \\ 513,782 \\ 540,130 \\ 566,478 \\ 592,826 \\ 619,173 \\ 645,521 \\ 671,869 \\ 698,217 \\ 724,565 \\ 750,912 \\ 144,140 \\ 144,$	
2034 TOTALS	4,905,467 6,518,954	29.5	144,711,264 168,519,506	25.85
INTERIM RETI Total Plant at 1 Less Retiremer	REMENTS: 2/31/04 of Unit 1 in 201 rement in year 20	-	6,518,954 -791,171 <u>-4,905,467</u> <u>822,316</u>	20.00

KENTUCKY POWER COMPANY DEPRECIATION STUDY AS OF DECEMBER 31, 2004 CALCULATED DEPRECIATION RESERVE STEAM PRODUCTION PLANT

ACCOUNT	PLANT BALANCE AT 12-31-04	AVERAGE AGE	AVERAGE REM. LIFE	AVERAGE LIFE	NET SALVAGE	% REM. LIFE TO AVG. LIFE	CALCULATED RESERVE %	CALCULATED RESERVE W/O NET SALVAGE	CALCULATED RESERVE WITH NET SALVAGE
BIG SANDY									
311	36,149,758	26.08	26.78	52.86	-1%	50.66%	49.34%	17,835,522	18,013,877
312	324,538,694	9.97	24.35	34.32	-12%	70.95%	29.05%	94,278,869	105,592,333
314	73,038,983	20.85	24.51	45.36	-9%	54.03%	45.97%	33,572,813	36,594,366
315	13,742,601	32.06	26.77	58.83	-3%	45.50%	54.50%	7,489,169	7,713,844
316	<u>6,518,954</u>	22.08	25.85	47.93	-4%	53.93%	46.07%	3,003,098	3,123,222
Total	<u>453,988,990</u>							<u>156,179,471</u>	171,037,642

ATTACHMENT TO RESPONSE NO. 1 (RR WORKPAPERS)

KENTUCKY POWER COMPANY REVENUE REQUIREMENT SUMMARY OF KIUC RECOMMENDATIONS REVENUE REQUIREMENT EFFECTS (\$ 000's)

Capitalization Issues	
Reduction to Reflect 13 Month Avg M&S Inventory	(73)
Remove KPCO Reliability Capital Adjustment	(597)
Recognize Additional Pension Funding in 2005	(660)
Remove Prior Deferral of RTO Formation Costs	(129)
Operating Income Issues	· · · ·
Correct Error in Off-System Sales Margin Roll-In	(2,035)
Increase Off-System Sales Margins to 2006 Projection	(5,102)
Increase Off-System Sales Margins for New East/West Reallocation	(3,620)
Remove Amortization of Deferred RTO Formation Costs	(160)
Remove KPCO Reliability O&M Expense Adjustment	(6,103)
Reduce Pension Expense to 2006 Amount	(288)
Reduce OPEB Expense to 2006 Amount	(96)
Revise Depreciation Expense for Changes in Proposed Depreciation Rates	(6,760)
Reduce KPCO Storm Damage Adjustment Based on 10 Year Average	(386)
Increase PJM Transmission Revenue Credits	(399)
Reduce PJM Net Congestion Costs	(2,121)
Remove KPCO Big Sandy Plant Maintenance Expense Adjustment	(1,305)
Remove KPCO §199 Deduction Tax Savings Included in Filing	414
Correct Error in Tax Expense Due to Interest Synchronization	(74)
Remove OH and WV Taxes from Gross Revenue Conversion Factor	(135)
Revise Kentucky State Income Tax Rate to 6.0%	(675)
Include Corrected §199 Deduction Tax Savings	(548)
Rate of Return Issues	
Reflect Return on Equity of 9.350%	(11,639)
	<i></i>
Total KIUC Adjustments to KPCO Request	(42,492)

I. KPCO Capitalization, Cost of Capital, and Gross Revenue Conversion Factor Per Filing

	Per Book Balance	KPCO Proforma Adjustments	KPCO Adjusted Capitalization	KPCO Reapportioned Adjusted Capitalization	Capital Ratio	Component Costs	Weighted Avg Cost	Grossed Up Cost	Kentucky Jurisdictional Factor	Revenue Requirement
Short Term Debt Long Term Debt Accts Receivable Financing Common Equity	487,716,122 30,139,598 331,354,481	3,350,473 (3,921,902) - 6,923,708	3,350,473 483,794,220 30,139,598 338,278,189	3,374,508 487,264,770 30,355,808 340,704,864	0.39% 56.55% 3.52% 39.54%	3.34% 5.70% 2.99% 11.50%	0.0131% 3.2232% 0.1053% 4.5469%	0.0131% 3.2385% 0.1058% 7.5736%	99.00% 99.00% 99.00% 99.00%	112,111 27,626,957 902,830 64,609,239
Sub Total	849,210,201	6,352,279	855,562,480	861,699,950	100.00%		7.89%	10.93%		93,251,138
Job Development Tax Credit	6,137,470		6,137,470							
Total Capital	855,347,671	6,352,279	861.699,950	861,699,950	100.00%	:	7.89%	10.93%		93,251,138

II. KPCO Capitalization, Cost of Capital, and Gross Revenue Conversion Factor Adjusting Capitalization for: Capitalization Adjustment 1 - Reduction to Reflect 13 Month Average M&S Inventory

	KPCO Reapportioned Adjusted Capitalization	KIUC Proforma Adjustment 1	KIUC Adjusted Reapportioned Capitalization After Adjustment 1	KIUC Adjusted Capital Ratio	Component Cost	Weighted Avg Cost	Grossed Up Cost	Kentucky Jurisdictional Factor	Revenue Requirement	Incremental Revenue Requirement
Short Term Debt Long Term Debt Accts Receivable Financing Common Equity	3,374,508 487,264,770 30,355,808 340,704,864	(2,210,060) - - -	1,164,448 487,264,770 30,355,808 340,704,864	0.14% 56.69% 3.53% 39.64%	3.34% 5.70% 2.99% 11.50%	0.0045% 3.2315% 0.1056% 4.5586%	0.0045% 3.2468% 0.1061% 7.5931%	99.00% 99.00% 99.00% 99.00%	38,687 27,626,957 902,830 64,609,239	(73,425) - - -
Total Capital	<u>861,699,950</u>	(2,210,060)	859,489,890	100.00%	11.0070	7.90%	10.95%	00100,0	93,177,713	(73,425)

III. KPCO Capitalization, Cost of Capital, and Gross Revenue Conversion Factor Adjusting Capitalization for: Capitalization Adjustments 1 & 2 - Removal of KPCO's Reliability Capital Adjustments

	KIUC Adjusted Reapportioned Capitalization After Adjustment 1	KIUC Proforma Adjustment 1	KIUC Adjusted Reapportioned Capitalization After Adjustment 2	KIUC Adjusted Capital Ratio	Component Cost	Weighted Avg Cost	Grossed Up Cost	Kentucky Jurisdictional Factor	Revenue Requirement	Incremental Revenue Requirement
Short Term Debt Long Term Debt Accts Receivable Financing Common Equity	1,164,448 487,264,770 30,355,808 340,704,864	(196,622) (3,181,718) - (2,161,660)	967,826 484,083,052 30,355,808 338,543,204	0.11% 56.69% 3.55% 39.64%	3.34% 5.70% 2.99% 11.50%	0.0038% 3.2312% 0.1063% 4.5591%	0.0038% 3.2465% 0.1068% 7.5939%	99.00% 99.00% 99.00% 99.00%	32,154 27,446,560 902,830 64,199,315	(6,532) (180,397) - (409,924)
Total Capital	859,489,890	(5,540,000)	853,949,890	100.00%		7.90%	10.95%		92,580,859	(596,854)

IV. KPCO Capitalization, Cost of Capital, and Gross Revenue Conversion Factor Adjusting Capitalization for: Capitalization Adjustments 1,2 & 3 - Recognize Additional Pension Funding in 2005

	KIUC Adjusted Reapportioned Capitalization After Adjustment 2	KIUC Proforma Adjustment 3	KIUC Adjusted Reapportioned Capitalization After Adjustment 3	KIUC Adjusted Capital Ratio	Component Cost	Weighted Avg Cost	Grossed Up Cost	Kentucky Jurisdictional Factor	Revenue Requirement	Incremental Revenue Requirement
Short Term Debt Long Term Debt Accts Receivable Financing Common Equity	967,826 484,083,052 30,355,808 338,543,204	(6,904) (3,453,136) (216,539) (2,414,949)		0.11% 56.69% 3.55% 39.64%	3.34% 5.70% 2.99% 11.50%	0.0038% 3.2312% 0.1063% 4.5591%	0.0038% 3.2465% 0.1068% 7.5939%	99.00% 99.00% 99.00% 99.00%	31,925 27,250,774 896,390 <u>63,741,358</u>	(229) (195,786) (6,440) (457,957)
Total Capital	853,949,890	(6,091,528)	847,858,362	100.00%		7.90%	10.95%		91,920,447	(660,412)

V. KPCO Capitalization, Cost of Capital, and Gross Revenue Conversion Factor Adjusting Capitalization for: Capitalization Adjustments 1,2,3 & 4 - Remove Prior Deferral of RTO Formation Costs

	KIUC Adjusted Reapportioned Capitalization After Adjustment 3	KIUC Proforma Adjustment 4	KIUC Adjusted Reapportioned Capitalization After Adjustment 4	KIUC Adjusted Capital Ratio	Component Cost	Weighted Avg Cost	Grossed Up Cost	Kentucky Jurisdictional Factor	Revenue Requirement	Incremental Revenue Requirement
Short Term Debt Long Term Debt Accts Receivable Financing Common Equity	960,922 480,629,916 30,139,269 336,128,255	(677,767)	960,922 480,629,916 30,139,269 335,450,488	0.11% 56.73% 3.56% 39.60%	3.34% 5.70% 2.99% 11.50%	0.0038% 3.2338% 0.1064% 4.5536%	0.0038% 3.2491% 0.1069% 7.5846%	99.00% 99.00% 99.00% 99.00%	31,925 27,250,774 896,390 63,612,831	- - - (128,528)
Total Capital	847,858,362	(677,767)	847,180,595	100.00%		7.90%	10.94%		91,791,920	(128,528)

VI. KPCO Capitalization and Cost of Capital; Gross Revenue Conversion Factor Adjusted to Reduce Capitalization and to Remove OH and WV Taxes

	KIUC Adjusted Reapportioned Capitalization	KIUC Adjusted Capital Ratio	Component Cost	Weighted Avg Cost	Grossed Up Cost	Kentucky Jurisdictional Factor	Revenue Requirement	Incremental Revenue Requirement
Short Term Debt	960,922	0.11%	3.34%	0.0038%	0.0038%	99.00%	31,925	-
Long Term Debt	480,629,916	56.73%	5.70%	3.2338%	3.2491%	99.00%	27,250,774	-
Accts Receivable Financing	30,139,269	3.56%	2.99%	0.1064%	0.1069%	99.00%	896,390	-
Common Equity	335,450,488	39.60%	11.50%	4.5536%	7.5685%	99.00%	63,477,988	(134,843)
Total Capital	847,180,595	100.00%		7.90%	10.93%		91,657,077	(134,843)

VII. KPCO Capitalization and Cost of Capital; Gross Revenue Conversion Factor Adjusted to Reduce Capitalization, Remove OH and WV Taxes and Reflect Kentucky Tax Rate Reduction

	KIUC Adjusted Reapportioned Capitalization	KIUC Adjusted Capital Ratio	Component Cost	Weighted Avg Cost	Grossed Up Cost	Kentucky Jurisdictional Factor	Revenue Requirement	Incremental Revenue Requirement
Short Term Debt	960,922	0.11%	3.34%	0.0038%	0.0038%	99.00%	31,925	-
Long Term Debt	480,629,916	56.73%	5.70%	3.2338%	3.2491%	99.00%	27,250,774	-
Accts Receivable Financing	30,139,269	3.56%	2.99%	0.1064%	0.1069%	99.00%	896,390	-
Common Equity	335,450,488	39.60%	11.50%	4.5536%	7.4880%	99.00%	62,802,690	(675,298)
Total Capital	847,180,595	100.00%		7.90%	10.85%		90,981,779	(675,298)

VIII. KPCO Capitalization and Cost of Capital; Gross Revenue Conversion Factor Adjusted to Reduce Capitalization, Remove OH & WV Taxes, Reflect Kentucky Tax Rate Reduction, and Include § 199 Deductions

	KIUC Adjusted Reapportioned Capitalization	KIUC Adjusted Capital Ratio	Component Cost	Weighted Avg Cost	Grossed Up Cost	Kentucky Jurisdictional Factor	Revenue Requirement	Incremental Revenue Requirement
Short Term Debt	960,922	0.11%	3.34%	0.0038%	0.0038%	99.00%	31,925	-
Long Term Debt	480,629,916	56.73%	5.70%	3.2338%	3.2491%	99.00%	27,250,774	-
Accts Receivable Financing	30,139,269	3.56%	2.99%	0.1064%	0.1069%	99.00%	896,390	-
Common Equity-Production	116,621,910	13.77%	11.50%	1.5831%	2.5379%	99.00%	21,285,512	(548,320)
Common Equity-Non Production	218,828,578	25.83%	11.50%	2.9705%	4.8848%	99.00%	40,968,858	
Total Capital	847,180,595	100.00%		7.90%	10.78%		90,433,459	(548,320)

IX. KPCO Capitalization and Cost of Capital; Gross Revenue Conversion Factor Adjusted to Reduce Capitalization, Remove OH & WV Taxes, Reflect Kentucky Tax Rate Reduction, Include §199 Deductions, and Adjust ROE

	KIUC Adjusted Reapportioned Capitalization	KIUC Adjusted Capital Ratio	Component Cost	Weighted Avg Cost	Grossed Up Cost	Kentucky Jurisdictional Factor	Revenue Requirement	Incremental Revenue Requirement
Short Term Debt	960,922	0.11%	3.34%	0.0038%	0.0038%	99.00%	31,925	-
Long Term Debt	480,629,916	56.73%	5.70%	3.2338%	3.2491%	99.00%	27,250,774	-
Accts Receivable Financing	30,139,269	3.56%	2.99%	0.1064%	0.1069%	99.00%	896,390	-
Common Equity-Production	116,621,910	13.77%	9.35%	1.2871%	2.0634%	99.00%	17,306,047	(3,979,465)
Common Equity-Non Production	218,828,578	25.83%	9.35%	2.4151%	3.9715%	99.00%	33,309,463	(7,659,395)
Total Capital	847,180,595	100.00%		7.05%	9.39%		78,794,598	(11,638,860)

KPCO GROSS REVENUE CONVERESION FACTOR WITHOUT SECTION 199 DEDUCTION TEST YEAR ENDING 6/30/2005

	As Filed By KPCO	Ky Only No OH or WV	KY @ 6.0% No OH or WV
Additional Revenue	100.00%	100.00%	100.00%
Less: Uncollectible Expense	0.47%	0.47%	0.47%
Income Before Income Taxes	99.53%	99.53%	99.53%
Less: State Income Taxes	-7.16%	-6.97%	-5.97%
Income Before Federal Income Taxes	92.36%	92.56%	93.56%
Less: Federal Income Taxes	-32.33%	-32.40%	-32.74%
Operating Income Percentage	60.04%	60.16%	60.81%
Gross Revenue Conversion Factor	1.6656	1.6621	1.6444

State Income Tax Effective Rate		Rate As of 1/1/2007
State Income Tax Rate - KY Apportionment Factor Effective Kentucky State Income Tax Rate	7.0000% <u>100.0000%</u> 7.00%	6.00%
State Income Tax Rate - WVA Apportionment Factor Effective West Virginia State Income Tax Rate	9.0000% 0.4700% 0.04%	
State Income Tax Rate - OH Apportionment Factor Phase-Out Factor Effective Kentucky State Income Tax Rate	8.5000% 7.5900% 	
Total Effective State Income Tax Rate	7.197%	

KPCO UNCOLLECTIBLE GROSS REVENUE CONVERSION FACTOR TEST YEAR ENDING 6/30/2005

	As Filed By KPCO
Additional Revenue	100.00%
Less: Uncollectible Expense	0.47%
Income Before Income Taxes	99.53%
Income Expansion Factor	1.004750

Kentucky Power Company Production Gross Revenue Conversion Factor With Federal & State §199 Deduction and Kentucky Tax Rate Reductions and No OH or WV

	for Fee and	9 Deduction 1 and State 1 6.0% State e Tax Rate
Pre-Tax Production Income	\$	100.0000
Uncollectible Accounts Expense	\$	0.4727
State Taxable Production Income before § 199 Deduction	\$	99.5273
State Income Tax Expense, Net of § 199 Deduction - (See Rates Below)	\$	5.8029
Federal Taxable Production Income before §199 Deduction	\$	93.7243
§199 Deduction Phase-In	\$	2.8117
Federal Taxable Production Income	\$	90.9126
Federal Income Tax Expense After §199 Deduction (35% Statutory Tax Rate)	\$	31.8194
Total Federal & State Income Tax Expense after §199 Ded & State Rate Reduct	\$	37.6223
Gross-Up Factor for Production Income	<u></u>	62.3777%
Gross Revenue Conversion Factor		1.6031
State Income Tax Calculation:		
Pre-Tax Production Income	\$	100.0000
Uncollectible Accounts Expense	\$	0.4727
State Taxable Production Income before § 199 Deduction	\$	99.5273
Less: State §199 Deduction	\$	2.8117
State Taxable Production Income	\$	96.7156
State Income Tax Rate		6.0000%
State Income Tax Expense	\$	5.8029

KPCO GROSS RE INCLUDING PRORATIC TEST YE

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Operating Income Percentage

Gross Revenue Conversion Factor

Kentucky Power Company Production Rate Base For the Test Year Ending June 30, 2005

Description	Total Company Per Books	Eliminations/ Adjustments	Total Company Pro Forma Balance	Kentucky Jurisdictional %	Total Company Pro Forma Kentucky Jurisdiction	KPCO Rate Case Adjustments	KIUC Rate Case Adjustments	Rate Case Total Company Pro Forma Kentucky Jurisdiction	Production Only %	Rate Case Production Only Kentucky Jurisdiction
Plant in Service: Gross Plant	1.353,341.211	(8,658,419)	1,344,682,792	99.02%	1.331.453.536	5,484,600	(5,484,600)	1,331,453,536	35.35%	470.661.522
Accumulated Depreciation	(437,493,803)	(0,000,110)	(437,493,803)	98.97%	(432,998,450)	0,101,000	(0,101,000)	(432,998,450)	41.39%	(179,201,191)
Net Plant In Service	915,847,408	(8,658,419)	907,188,989	00.01 /0	898,455,086	5,484,600	(5,484,600)	898,455,086	32.44%	291,460,331
Plant Held for Future Use	6,862,819	(6,778,355)	84,464	98.60%	83,282			83,282	0.00%	-
Prepayments	661,934		661,934	99.00%	655,315	4,083,831		4,739,146	32.44%	1,537,387
Materials and Supplies	16,720.225		16,720,225	98.70%	16,502,178	3,542,537		20,044,715	95.57%	19,156,409
Cash Working Capital	45,667,031		45,667,031	98.80%	45,120,342	3,938,375		49,058,717	32.44%	15,914,730
Construction Work in Progress	19,336,201		19,336,201	99.09%	19,159,718			19,159,718	52.12%	9,986,915
Less:										
Customer Advance and Deposits	(10,598,069)		(10,598,069)	100.00%	(10,598,069)			(10,598,069)	0.00%	-
Accumulated Deferred Income Taxes	(129,276,197)		(129,276,197)	99.00%	(127,983,435)			(127,983,435)	32.44%	(41,518,040)
Total Rate Base	865,221,352	(15,436,774)	849,784,578		- 841,394,417	17,049,343	(5.484,600)	852,959,160	34.77%	296,537,731
				Chec	k KPCO Total	858,443,760				

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Source KPCO Filing: Net Plant Plant Held for Future Use Prepayments Materials and Supplies Cash Working Capital Construction Work in Progress Pate Base Adjustments	Section V Schedule 5, 11 and 12 Section V Schedule 14 Section V Schedule 15 Section V Schedule 15 & Workpaper S-15 Section V Schedule 15 Section V Schedule 16 Section V Schedule 4 Pages 1-9
Rate Base Adjustments	Section V Schedule 4 Pages 1-9

Kentucky Power Company Breakout of Production Electric Utility Plant As of 6/30/05

Overall Production Percentages - Kentucky Jurisdiction (Section V Schedule 11)

Production	452,727,608
Production, Transmission & Distribution	1,280,720,319
Production Percentage	35,349%
Production A/D	172,837,498
Production, Transmission & Distribution A/D	417,622,050
Production Percentage	41.386%
Net Production	279,890,110
Net Production, Transmission & Distribution	863,098,269
Production Percentage	32,429%

Overall Production Percentages - Total Company (Section V Schedule 11)

Per Books Production	459,155,789
Per Books Prod, Tran & Dist Plant	1,293,430,061
Production Percentage	35.499%
Per Books Production A/D	175,291,580
Per Books Prod, Tran & Dist A/D	421,959,306
Production Percentage	<u>41.542%</u>
Net Per Books Production	283,864,209
Net Per Books Prod, Trans & Dist	871,470,755
Production Percentage	32.573%

Kentucky Power Company Section 199 Deduction Included in Filing Revenue Requirement Effect For the Test Year Ended 6/30/05

Source: WP Underlying Scendule 10 provided in reposnse to KIUC 1-15 on CD

1120 M-1 Input Value fo	or Jan 1, 2005 - June 30, 2005	Per Books	318,000
Doubled amount from a			318,000
Т	Total Income Difference		636,000
	Jurisdictional %		98.6%
٦	Fotal Kentucky Jurisdiction Inco	ome Difference	627,096
F	ederal Tax Rate in Filing	35.00%	
Ş	State Tax Rate in Filing	7.197%	
ç	State Tax		45,133
F	Federal Tax		203,687
T	Total Tax Savings Included in F	Filing	248,820

Kentucky Power Company Deferred RTO Formation Costs Capitalization Adjustment For the Test Year Ended 6/30/05

Deferred RTO Formation Costs at 6	/30/2005		1,123,585
Federal Tax Rate in Filing State Tax Rate in Filing	35.00% 7.197%		
State Tax Federal Tax	-	80,866 364,952	
Income Tax Effect			(445,818)
Capitalization Adjustment Recomme	ended		677,767

ATTACHMENT TO RESPONSE NO. 2(c)

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Lane Kollen Page 5 Revised

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1	revenue requirement. However, I recommend that the Commission modify the
2	Company's computation of the ECR credit to reflect a percentage of revenues credit on a
3	jurisdictional basis, consistent with the Commission precedent on such roll-ins. The
4	Company's proposed fixed dollar credit methodology significantly understates the effect
5	of the roll-in the ECR because it fails to reflect sales growth subsequent to the test year
6	and understates the jurisdictional amount of ECR costs recovered through base rates. I
7	also recommend that the Commission reject the Company's proposal to modify the
8	existing ECR to eliminate the effects of the $\$199$ deduction on federal and state income
9	tax expense. The Commission recently decided this issue in Case No. 2005-00068. The
10	Company advances no new arguments that require the Commission to revisit this issue.
11	
12	In addition, I recommend that the Commission reduce the Company's claimed net
13	increase of \$64.796 million (after the ECR revenue credit) by at least \$42.492 million
14	for the issues listed and amounts quantified on the following table. I address each of
15	these issues on the following table, except for the return on common equity, which Mr.
16	Baudino addresses, and the transmission revenue credits and PJM net congestion costs,
17	which Mr. Baron addresses. I also quantify the effects of each issue on the revenue
18	requirement.
19	

J. Kennedy and Associates, Inc.

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KENTUCKY POWER COMPANY REVENUE REQUIREMENT SUMMARY OF KIUC RECOMMENDATIONS REVENUE REQUIREMENT EFFECTS (\$ 000's)

Capitalization Issues	
Reduction to Reflect 13 Month Avg M&S Inventory	(73)
Remove KPCO Reliability Capital Adjustment	(597)
Recognize Additional Pension Funding in 2005	(660)
Remove Prior Deferral of RTO Formation Costs	(129)
Operating Income Issues	
Correct Error in Off-System Sales Margin Roll-In	(2,035)
Increase Off-System Sales Margins to 2006 Projection	(5,102)
Increase Off-System Sales Margins for New East/West Reallocation	(3,620)
Remove Amortization of Deferred RTO Formation Costs	(160)
Remove KPCO Reliability O&M Expense Adjustment	(6,103)
Reduce Pension Expense to 2006 Amount	(288)
Reduce OPEB Expense to 2006 Amount	(96)
Revise Depreciation Expense for Changes in Proposed Depreciation Rates	(6,760)
Reduce KPCO Storm Damage Adjustment Based on 10 Year Average	(386)
Increase PJM Transmission Revenue Credits	(399)
Reduce PJM Net Congestion Costs	(2,121)
Remove KPCO Big Sandy Plant Maintenance Expense Adjustment	(1,305)
Remove KPCO §199 Deduction Tax Savings Included in Filing	414
Correct Error in Tax Expense Due to Interest Synchronization	(74)
Remove OH and WV Taxes from Gross Revenue Conversion Factor	(135)
Revise Kentucky State Income Tax Rate to 6.0%	(675)
Include Corrected §199 Deduction Tax Savings	(548)
Rate of Return Issues	
Reflect Return on Equity of 9.350%	(11,639)
Total KIUC Adjustments to KPCO Request	(42,492)

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ATTACHMENT TO RESPONSE NO. 4(a)

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Paul E. Patton, Covernor

Ronald B. McCloud, Secretary Public Protection and Regulation Cabinet

Thomas M. Dorman Executive Director Public Service Commission COMMONWEALTH OF KENTUCKY **PUBLIC SERVICE COMMISSION** 211 SOWER BOULEVARD POST OFFICE BOX 615 FRANKFORT, KENTUCKY 40602-0615 WWW.psc.state.ky.us (502) 564-3940 Fax (502) 564-3460

June 1, 2001

Martin J. Hueismann Chairman

Edward J. Holmes Vice Chairman

Gary W. Gillis Commissioner

Honorable Michael L. Kurtz Boehm, Kurtz, & Lowry 2110 CBLD Center 36 East Seventh Street Cincinnati, Ohio 45202

RE: LG&E and KU Environmental Surcharges Staff Discussion Proposal on Roll-In Issues

Dear Mr. Kurtz,

The Commission's October 17, 2000 Orders in Case Nos. 2000-105 and 2000-106 accepted LG&E's and KU's suggestion that the parties and Staff hold an informal technical conference to discuss the mechanics relating to a roll-in of the environmental surcharge during a future 2-year review. In order to make this conference more productive, the Staff has been working on a "discussion proposal."

The discussion proposal contains the Staff's suggestions on modifications to the respective surcharge mechanisms at the time of roll-in. We are suggesting that both surcharge mechanisms move from the present incremental approach to a base period/current period approach. We have also attempted, to the extent possible, to make the mechanisms more uniform.

Enclosed with this letter is a copy of the Staff's discussion proposal. Please understand that this document is offered as a basis for discussion during the informal technical conference. While Staff has addressed the concerns we have about the surcharge mechanism after roll-in, we are open to comments and suggestions from the parties on topics we may have unintentionally overlooked.

KENNEDY & ASSOC.
JUL 2 5 2001



Letter to Mr. Kurtz June 1, 2001 Page 2

The Staff is also suggesting one of the following dates for the informal technical conference: June 22nd, June 25th, June 26th, or June 27th. We expect this conference to last no more than a day, and would plan to begin the conference at 9:30 a.m. We would like the parties to reply <u>no later than June 14, 2001</u>, indicating their preferred date and first alternate date. We would also ask that when replying the parties indicate how many people will be attending on their behalf. Please send your replies to my attention at the Commission.

If you have any questions, please feel free to contact me at (502) 564-3940, extension 444. While I will be out of the office during the week of June 4, 2001, you can leave a voice mail message and I will get back to you as soon as possible when I return on June 11, 2001. Thank you for your cooperation in this matter.

Sincerely,

Isaac S. Scott Public Utilities Financial Analyst

Enclosure

cc: William A. Bosta Ronald L. Willhite Honorable Dennis G. Howard Honorable Edward W. Gardner

KENTUCKY UTILITIES COMPANY / LOUISVILLE GAS & ELECTRIC COMPANY ENVIRONMENTAL SURCHARGE – ROLL-IN ISSUES COMMISSION STAFF PROPOSAL

The Commission approved environmental surcharge mechanisms for KU and LG&E in 1994 and 1995, respectively. The mechanisms are essentially the same, and are based on an "incremental" approach. Under the incremental approach, specific qualifying environmental investments added since the last general rate cases were identified. These investments were included in the determination of an environmental compliance rate base, upon which a return would be earned. Qualifying operation and maintenance expenses were also identified, and combined with the return on environmental investments to determine a revenue requirement. Subsequent retirements and replacements resulting from the installation of the environmental investments were adjusted from the balances reported in the surcharge mechanism.

In both applications, the Commission was presented with two approaches to calculate the environmental surcharge. One was the incremental approach, which after some modification in each case, was approved for the utilities. The other approach reflected a "base period/current period" philosophy, which required an identification of environmental investments and associated expenses already included in existing rates. This "base current" approach was not adopted for either KU or LG&E, primarily because of the lack of necessary accounting data. The Commission did note, however, that both approaches were appropriate methods to determine those costs not already included in existing rates.

At the time of the first 2-year surcharge review, KU's and LG&E's surcharges were under appeal through the courts. Both utilities proposed, and the Commission agreed, that it was not appropriate to incorporate the surcharge into base rates, a "roll-in" of the surcharge. In the second 2-year surcharge review, KU and LG&E proposed that there be no roll-in, due to the fact that the effects of the August 1999 Settlement Agreement were not reflected in the review period. During that review, the Commission Staff asked several questions about the approach to be used to roll-in the surcharge, including a change in the mechanism to a base current approach and the use of a true-up component in the monthly filings. The Commission agreed with the utilities that it was not appropriate at this time to roll-in the surcharge, but accepted the utilities' suggestion that an informal conference should be held between the parties and the Commission Staff to discuss the mechanics of these issues.

This package of materials reflects the Commission Staff's thoughts and ideas on how best to accomplish the future roll-in of the surcharge for KU and LG&E. It is a product of the experience the Commission Staff has gained over the past 7 years of administering the surcharge, and has tried to address issues that have come to our attention during previous surcharge reviews. Where possible, we have attempted to bring about some degree of consistency and uniformity between the surcharge mechanisms for KU, LG&E

and American Electric Power. However, we have also been mindful that the unique circumstances of each utility will dictate the need for some differences within each surcharge mechanism.

The Commission Staff also notes that this proposal is based on the respective environmental surcharges as of December 31, 2000. Thus, the proposals and issues contained in Case Nos. 2000-386 and 2000-439 are not reflected. However, it is the Commission Staff's belief that regardless of the outcome of those cases, the proposal contained in this package can be adapted to fit those circumstances. One of the concepts that the Commission Staff has tried to incorporate into this proposal is one of flexibility for future changes in the environmental surcharge.

Summary of Proposal

The Commission Staff proposes that at the next 2-year review there be a roll-in of the respective surcharges, to the extent appropriate as provided in KRS 278.183. The calculation of the roll-in amount, as well as the going forward surcharge mechanism, should reflect the use of a base current approach, instead of a continuation of the incremental approach. This base current approach is similar to the approach currently utilized in the fuel adjustment clauses. The base and current periods will be expressed as factors, with the difference being the factor actually applied to customers' bills.

The base period will reflect the environmental surcharge activity for the 12 months ending with the last month in the 2-year review period. The Commission Staff believes that the use of the 12-month amounts will smooth out the fluctuations that occur in the revenue requirement from month to month. The revenue requirement will be expressed as an annual amount, rather than monthly. Jurisdictional revenues will be the total jurisdictional revenues excluding surcharge revenues for the 12-month period. A base jurisdictional surcharge factor will be calculated, dividing the 12-month jurisdictional revenue requirement by the 12-month jurisdictional revenues. The jurisdictional allocation ratio will be based on the totals for 12 months.

The base period will be composed of the revenue requirement associated with the retirements and replacements currently reflected in the surcharge mechanism as an adjustment to the current balances, and the revenue requirement associated with the actual amount to be rolled-in to base rates. Thus, after roll-in, the base period will reflect the total amount already included in existing rates. The base period will only be calculated at the time of roll-in.

The current period will reflect the environmental surcharge activity for the expense month. The only adjustment to the current balances will be for retirements and replacements that have occurred since the roll-in. A current surcharge factor will be calculated, dividing the monthly jurisdictional revenue requirement by the average monthly jurisdictional revenues. The Commission Staff believes that this approach addresses past expressed concerns about over or under recovering of the roll-in due to changes in the units the surcharge is based on.

Discussion of Proposal

<u>Formulas.</u> Under the proposed base current approach, the environmental surcharge factor billed each month would be expressed as follows:

$$MESF = CESF - BESF$$

Where:

MESF =	Monthly Billed Environmental Surcharge Factor
CESF =	Current Period Jurisdictional Environmental
	Surcharge Factor
BESF =	Base Period Jurisdictional Environmental Surcharge Factor

CESF would be expressed as follows:

The monthly Net Jurisdictional E(m) and Jurisdictional R(m) would be amounts calculated as they are currently, with the exception that the current balances for the appropriate accounts are used. There would be no offsets for retirements, replacements, or other adjustments made to reflect those costs already included in existing rates. The only exception would be retirements and replacements taking place since the date of the roll-in.

BESF would be expressed as follows:

BESF = Annual Net Jurisdictional E(m) / Annual Jurisdictional R(m)

The annual Net Jurisdictional E(m) and Jurisdictional R(m) would be amounts reflecting the last 12 months of the 2-year review period. Calculating the amounts would be similar to what is now practiced, but reflecting the totals as of the end of the 12-month period. There would be no offsets for retirements, replacements, or other adjustments made to reflect those costs already included in existing rates. At the time of the first rollin, it must be remembered that the base period revenue requirement calculation will reflect two parts: the revenue requirements associated with retirements, replacements, and other adjustments reflecting costs already including in existing rates, and the revenue requirements that are actually rolled into existing base rates.

<u>Surcharge Mechanism Uniformity.</u> While its has been stated that the calculation of the base and current period factors would be essentially the same as is followed now, the Commission Staff have identified 3 areas where we believe there should be minor

modifications which would result in consistent presentation and treatment of the surcharge. We believe it is appropriate to present those modifications here before continuing the discussion of the Commission Staff's proposal addressing surcharge roll-in issues.

The first area concerns terminology. KU's surcharge uses the term "jurisdictional" while LG&E's surcharge uses "retail." The Commission Staff would propose to use the term "jurisdictional" for both mechanisms, and is doing so throughout this presentation. It is desirable from a consistency perspective that the terminology used in the surcharge mechanisms is uniform.

The second area concerns the proceeds from by-product and allowance sales. The proceeds from by-product and allowance sales are used as a reduction of the surcharge revenue requirement. Under the surcharge mechanisms in effect, KU is required to recognize gross proceeds while LG&E and AEP are required to recognize net proceeds. After reviewing the situation, the Commission Staff can find no reason why the same approach is not followed in all 3 surcharge mechanisms. The Commission Staff suggests that KU's mechanism should be revised to use net proceeds.

The final area concerns the impact of timing differences. Specifically, the level of jurisdictional revenues used to determine the surcharge factor is not the same as the level the factor is applied to. This situation results in over- and under-recoveries of the surcharge every month. The experience of the KU and LG&E surcharges has been that a major portion of the over- and under-recoveries determined during the 6-month and 2year reviews have resulted because of this timing difference. The AEP surcharge mechanism minimizes this effect by having a 2-month true-up adjustment incorporated into the mechanism. The Commission Staff believes that a similar 2-month true-up adjustment should be incorporated into KU's and LG&E's surcharge mechanism. We believe that such an adjustment is permitted under KRS 278.183. This timing difference does not result from an improper calculation of the surcharge. It does not result from a finding that costs that are not just or reasonable. Finally, the timing difference does not result from the inclusion of costs in the surcharge that are later determined to be different from the actual costs eligible for surcharge recovery. The Commission Staff suggests that the surcharge mechanisms for KU and LG&E be modified to include a 2month true-up adjustment similar to that used for AEP.

<u>Testing the Concept.</u> As the Commission had noted in the Orders approving the environmental surcharges for KU and LG&E, both the incremental and base current approaches were appropriate to use to determine the environmental costs not already included in existing rates. The Commission Staff decided to test its proposed base current approach by taking the financial information from one expense month and see if the base current approach would produce the same results as the incremental approach. If the components included in the incremental approach were properly separated into base and current, the results should be similar. In this testing, the base period revenue requirement reflected retirements, replacements, and other adjustments for costs already included in existing rates. We must note that for this testing stage, the

-4-

base period reflected only one month of activity, rather than the 12 months in our proposal.

The expense month of August 2000 was selected as the test month. The test results are shown in Attachment I, Parts 1 and 2, to this package. The testing was performed for both KU and LG&E. The first column of numbers on Attachment I, Part 1 shows the calculation of the current period under the base current approach, and compares the results with those actually filed by KU and LG&E. The first column of numbers on Attachment I, Part 2 shows the calculation of the base period. Using the base current approach, the Commission Staff duplicated the results shown in the monthly filings using the incremental approach. The Commission Staff believes that these results validate the assumptions we plan to incorporate in the base current approach.

As a comparison, the remaining columns on Attachment I, Parts 1 and 2 reflect the use of the 12 months ending August 2000 as a base period. As noted on the schedules, the 12 months ending August 2000 information is taken from Attachment II, Part 1.

<u>Modeling the Concept.</u> The Commission Staff determined the best way to present its base current approach proposal was to take information from actual environmental surcharge filings and show how the proposal would have worked had there been a rollin. We chose as the base period the 12 months ending August 2000. After calculating the base period revenue requirement and surcharge factor, we then recalculated the filings for September, October, and November 2000 using the base current approach.

The Commission Staff does wish to stress that if this proposal were implemented, the appropriate 12-month ending period would actually be used. The use of August 2000 is for illustration purposes only.

Attachment II, Part 1, shows the calculation of the base period using the 12 months ending August 2000. Part 1 shows the total base period revenue requirement. Using this approach, the base period surcharge factor, or BESF, for KU is 3.10 percent. The BESF for LG&E is 1.11 percent. We have shown the total base period surcharge factor, as well as broken that factor down into the portion related to the roll-in and the portion related to costs already included in existing rates.

Attachment II, Part 2, shows the revenue requirement that would be rolled into existing base rates. It should be noted that the Commission Staff's proposal does not address exactly how the roll-in amount is to be incorporated into existing rates. The costs associated with retirements, replacements, and other adjustments for costs already included in existing rates have been excluded from the calculations. The calculation of the revenue requirement related to these items is shown on Attachment I, Part 2, second column.

Attachment III, Parts 1 through 3, shows how the surcharge factor would have been calculated in the expense months of September, October, and November 2000 under the base current approach, assuming the base period was the 12 months ending

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August 2000. The calculations for November 2000 also include the first 2-month trueup adjustment to address timing differences.

During the last environmental surcharge reviews, KIUC and the Attorney General raised concerns about the potential for a utility to over- or under-recover the surcharge because of the amount rolled into base rates. The Commission Staff tends to agree with the intervenors that this potential is present if the base period revenue requirement were netted against the current period revenue requirement. The Commission Staff proposal deals with that situation by borrowing from the fuel adjustment clause mechanism. By expressing the base period as a factor, the level of revenues the monthly surcharges are applied to should not result in a significant over- or under-recovery. For each month presented, we have included a "proof" that we believe demonstrates how this approach addresses and resolves the intervenors' expressed concerns. The Commission Staff notes that attempting to achieve exact matches would entail refinements which would unnecessarily burden the operation of the surcharge mechanism.

Attachment IV presents the revised monthly surcharge filing formats. As noted previously, all examples are based on the respective environmental surcharges in effect at December 31, 2000. Any changes in the surcharge mechanism impacting the reporting formats relating to Case Nos. 2000-386 and 2000-439 would be incorporated at the appropriate time.

The Commission Staff have attempted to simplify the reporting formats, as well as reflect the implementation of the base current approach. There are no reporting formats for the base period calculations, those would be part of the Order in the 2-year review proceeding where surcharge amounts were rolled into the existing base rates. Many of the formats currently would only apply to KU and are noted. One change the Commission Staff is proposing relates to the emission allowance inventory formats. Based on information provided by KU in the last review proceeding, the Commission Staff has concluded that the calculation of an all vintage years allowance inventory price is unnecessary. However, an inventory of allowances awarded, by vintage year, is useful information and has been incorporated into the format. The Commission Staff believes this emission allowance inventory information should be required from LG&E as well as KU.

Attachments

KENTUCKY UTILITIES COMPANY / LOUISVILLE GAS & ELECTRIC COMPANY ENVIRONMENTAL SURCHARGE – ROLL-IN ISSUES COMMISSION STAFF PROPOSAL

ATTACHMENT I

Kentucky Utilities Company

- Part 1 Test Calculations, Current Period ("Test&Compar")
 Support Schedules A through C are from Attachment II, Part 1 ("BPKU")
- Part 2 Test Calculations, Base Period ("Test&Exclud")

Louisville Gas & Electric Company

- Part 1 Test Calculations, Current Period ("Test&Compar")
 Support Schedules A through C are from Attachment II, Part 1 ("BPLGE")
- Part 2 Test Calculations, Base Period ("Test&Exclud")

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2 COMPARISON OF STAFF PROPOSED BASE PERIOD CONCEPT

3 WITH REPORTED AMOUNTS FOR THE EXPENSE MONTH AUGUST, 2000

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4 COMPARISON FOR KENTUCKY UTILITIES COMPANY

4	COMPARISON FOR KENTUCKY UTILITIES COMPANY				
5 6 7	CALCULATION OF REVENUE REQUIREMENTS - AUGU	IST 2000:	Balances from	From ATTACH	
8			August, 2000	12-Month Ending	
9		•			
10					
11	Pollution Control Plant in Service	ES Form 2.1, Pg. 1, Col. 2	255,013,633	255.013,633	
12	Pollution Control CWIP Excluding AFUDC	ES Form 2.1, Pg. 1, Col. 10	107,798	107,798	
	Subtotal		255,121,431	255,121,431	
14 15	Additions: Inventory - Spare Parts	ES Form 2.2	1,231,533	1,231,533	
16	Inventory - Limestone	ES Form 2.2	193,500	193,500	
17	Inventory - Emission Allowances	ES Form 2.3	348.617	348,617	
18	Pollution Control Cash Working Capital	See Line 36	602,642	602,642	
	Subtotal		2,376,292	2.376.292	
20	Deductions:				
21	Accumulated Depreciation on Pollution Control Plant	ES Form 2.1, Pg. 1, Col. 6	65,550,041	65,550,041	
22	Pollution Control Deferred Income Taxes - Plant	ES Form 2.1, Pg. 3, Col. 6	34,461,477	34,461,477	
23	Pollution Control Deferred Income Taxes - Allowances	ES Form 2.1, Pg. 3, Col. 9	154,735	154,735	
24	Pollution Control Deferred Investment Tax Credit	ES Form 2.1, Pg. 3, Col. 2	565,118	565,118	
25	Subtotal	-	100,731,371	100,731,371	
26					
27	Environmental Compliance Rate Base		156.766.352	156,766,352	13.063.863
28	Environmental Compliance Rate Base / 12		13,063,863		
29	Rate of Return - Environmental Compliance Rate Base		5.85%	5.85%	5.85%
30			1		
31	Return on Environmental Compliance Rate Base		764,236	9,170,832	764,236
32					
33	Pollution Control Cash Working Capital -		1		
34	Total 12 Month O&M Expenses	ES Form 2.4	4,821,139	4,821,139	
35	One Eighth Factor		12.5%	12.5%	
	Pollution Control Cash Working Capital		602,642	602,642	
37					
38					
39	2 1	ES Form 2.4	382,680	4,821,139	
40	Monthly Depreciation & Amortization Expense	See Support Sch. A	820,509	9,822,588	
41	Monthly Taxes Other Than Income Taxes	See Support Sch. A	21,972	268,332 74,676	
42 43	Monthly Insurance Expense Monthly Emission Allowance Expense	See Support Sch. A See Support Sch. A	6,223 18,939	189,935	
43	Adjustment due to O&M Benchmark	See Note #1	19,082	03,303	
45		See Note #1	10,002		
46			1,269,405	15,176,670	1,264,723
47					ungen and finishing and the
	Gross Proceeds from By-Product &			1 }	
49	Allowance Sales	See Support Sch. 8	0	1,012,070	84,339
50				The second s	
51	Total Company Environmental Surcharge Gross Rever	nue Requirement -			
52				1	
53					
54			764,236	9,170,832	764,236
55	Pollution Control Operating Expenses		1,269,405	15,176,670	1,264,723
56	•	5	0	(1.012.070)	(84,339)
57					
	Current Period - E(m)		2,033,641	23,335,432	1,944,620
59		• •			
60	Jurisdictional Allocation Ratio - Current Period	See Support Schedule C	76.17%	76.15%	76.15%
61				l	
62		• • • • •			47 700 005
63		See Support Schedule C	47,728,325	572,739,904	47,728.325
64				I	

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2	COMPARISON OF STAFF PROPOSED BASE PERIOD CONCEPT			
3	WITH REPORTED AMOUNTS FOR THE EXPENSE MONTH AUGUST, 2000			
4	COMPARISON FOR KENTUCKY UTILITIES COMPANY			
5				
65	Current Period Jurisdictional Environmental Surcharge Factor - CESF:	I		
6 6		1		
67	Total Company Environmental Surcharge Gross Revenue Requirement -	1		
68	Current Period	2,033,641	23,335,432	1,944,620
69	·			
70	Jurisdictional Allocation Ratio - Current Period	76.17%	76.15%	76.15%
71		l		
72	Jurisdictional Environmental Surcharge Gross Revenue Requirement -	1		
73	Current Period	1,549.024	17,769,931	1,480,828
74				
75	Average Jurisdictional Revenues for 12 Months for Current Period	47,728,325	572,739,904	47,728.325
76			Anna an All All an an All an Andrew	
77	Current Period Jurisdictional Environmental Surcharge Factor - CESF	3.25%	3.10%	3.10%
78				0.1070
-	Deput Ancholog	1		
79		0.000.641	22 225 420	
80	Total Company Revenue Requirement - Current Period	2,033,641	23,335,432	1,944,620
81	Total Company Rev. Requirement - Base Period - Assoc. w/ Retirements/Exclusions	584,481	7,016,661	584,722
82	· · · · · · ·			
83	Total Company Net Revenue Requirement	1,449,160 _	16,318,771	1,359,898
84				
85	Total Company Revenue Requirement - As Filed for August 2000	1,449,160		
86	Difference	0		
87		l		
88	Jurisdictional Revenue Requirement - Current Period	1,549,024	17,769,931	1,480,828
89	Juris, Revenue Requirement - Base Period - Associated with Retirements/Exclusions	445,199	5.343,187	445,266
90		1		
91	Jurisdictional Net Revenue Requirement	1,103,825 _	12,426,744	1.035,562
92		1		
93	Jurisdictional Revenue Requirement - As Filed for August 2000	1,103,825		
94	Difference	0		
95				
96				

96 Note #1:
97 Reflects the difference between the August 2000 O&M Expenses, the Monthly Increment
98 included in the filing, and the averaging of the 05/31/94 Baseline to a monthly amount.

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2 STAFF PROPOSAL CONCERNING BASE/CURRENT APPROACH 3 ENVIRONMENTAL SURCHARGE ROLL-IN FOR KENTUCKY UTILITIES COMPANY 4 DETERMINATION OF EFFECT OF CURRENT EXCLUSIONS ON TOTAL BASE PERIOD

5

6 CALCULATION OF REVENUE REQUIREMENT FOR BASE PERIOD, 7 REFLECTING ONLY AMOUNTS IN EXISTING RATES OR EXCLUDE

6	CALCULATION OF REVENUE REQUIREMENT FOR BA	ASE PERIOD,		
7	REFLECTING ONLY AMOUNTS IN EXISTING RATES	OR EXCLUDED:	Balances from	12-Month Ending
8			August, 2000	August, 2000
9	Environmental Compliance Rate Base -			
10	Pollution Control Plant in Service	ES Form 2.1, Pg. 1, Col. 3-5	79,462,882	79,462,882
11	Pollution Control CWIP Excluding AFUDC	ES Form 2.1, Pg. 1, Col. 10	o i	~ O
12	Subtotal		79,462,882	79,462,882
13	Additions:			
14	Inventory - Spare Parts	ES Form 2.2	0 1	0
		ES Form 2.2	0 1	0
15	Inventory - Limestone		•	0
16	Inventory - Emission Allowances	ES Form 2.3	0	•
17	Pollution Control Cash Working Capital	See Line 35	205,095	205.095
18	Subtotal		205.095	205,095
19	Deductions:		1	
20	Accumulated Depreciation on Pollution Control Plant	ES Form 2.1, Pg. 1, Col. 6-7	23,260,539	23,260,539
21	Pollution Control Deferréd Income Taxes - Plant	ES Form 2.1, Pg. 3, Col. 7-8	13,900,768	13,900,768
22	Pollution Control Deferred Income Taxes - Allowances	ES Form 2.1, Pg. 3, Col. 9	0	0
23	Pollution Control Deferred Investment Tax Credit	ES Form 2.1, Pg. 3, Col. 3-4	585,118	565,118
, 24	Subtotal		37,728,425	37,726,425
	Suowa		31,120,423	51,120,425
25				41 041 552
26	Environmental Compliance Rate Base		41,941,552	41,941,552
27	Environmental Compliance Rate Base / 12		3,495,129	
28	Rate of Return - Environmental Compliance Rate Base		5.85%	5.85%
29	·			
30	Return on Environmental Compliance Rate Base		204,485	2,453,581
31	······································		THE REAL PROPERTY AND	
32	Pollution Control Cash Working Capital -			
	5	ES Form 2.4	1,640,756	1,640,756
33	Total 12 Month O&M Expenses	ES Ponn 2.4		, , ,
34	One Eighth Factor		12.5%	12.5%
35	Pollution Control Cash Working Capital		205,095	205,095
36				
37	Pollution Control Operating Expenses -			
38	Monthly O&M Expenses	ES Form 2.4	136,730	1,640,756
39	Monthly Depreciation & Amortization Expense	See Support Sch. A	238,978	2,869,317
	Monthly Taxes Other Than Income Taxes	See Support Sch. A	4,308	53,007
40	•		4,508	0
41	Monthly Insurance Expense	See Support Sch. A	-	0
42	Monthly Emission Allowance Expense	See Support Sch. A	0	·
43				1
44	Total Pollution Control Operating Expenses		380,016	4.563.080
45				1
46	Gross Proceeds from By-Product &			
47	Allowance Sales	See Support Sch. B	0	0
48				
49	Total Company Environmental Surcharge Gross Reve	aue Bequirement -		1
	Base Period	nue Requirement -		1
50	Base Period			1
51				l
52	Return on Environmental Compliance Rate Base		204,465	2.453.581
53	Pollution Control Operating Expenses		380,016	4,563,080
54	Less Gross Proceeds from By-Product & Allowance Sale	es	0	0
55				
56	Base Period - E(m)		584,481	7,016,681
	www.wiwa mility			and the second s
57	Invindictional Allocation Bodie - Boos Dedad	Son Sunnort Schodule C	76.17%	76,15%
58	Jurisdictional Allocation Ratio - Base Perlod	See Support Schedule C	10.1170	10.1078
59				1
60	Average Jurisdictional Revenues for 12 Months			ł
61	for Base Period	See Support Schedule C	47,728,325	572,739,904
62				1
63	Base Period Jurisdictional Environmental Surcharge	Factor - BESE		t
64	Dase rende sonsdiekonar Environmental oorenerge			1
	T O	- De suiversent		1
65	Total Company Environmental Surcharge Gross Revenue	e Requirement -	504 494	7.018.681
66	Base Period		584,481	7,016,661
67				70 / 50/
68	Jurisdictional Allocation Ratio - Base Period		78.17%	76.15%
ô9				
70	Jurisdictional Environmental Surcharge Gross Revenue F	Requirement -		
71	Base Period		445,199	5,343,187
72				1
73	Average Jurisdictional Revenues for 12 Months for Base	Period	47,728,325	572,739,904
74				
	Base Period Jurisdictional Environmental Surcharge Fac	tor - BESE	0.93%	0.93%
	aase nenoo aansoicaonar chviroisneniai aarcharge hec	wa - 0601		
76				

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2 STAFF PROPOSAL CONCERNING BASE/CURRENT APPROACH

ENVIRONMENTAL SURCHARGE ROLL-IN FOR KENTUCKY UTILITIES COMPANY 3

4 DETERMINATION OF EFFECT OF CURRENT EXCLUSIONS ON TOTAL BASE PERIOD 5

6 SUPPORT SCHEDULE A: 7 Twelve Month Balances fo Twelve Month Balances for Selected Operating Expense Accounts a

3					
9		Cepreciation &	Taxes Other Than	Insurance	Emission
10		Amonization	Income Taxes	Expense	Allowance
11		ES Form 2.1,	ES Farm 2.1,	ES Form 2.0	Expense
12	Month	Pg. 2, Col. 8-7	Pg. 3, Col. 10		ES Form 2.0
13					
14	September 1999	239,302	4,526	0	0
15	October	239,302	4,506	0	0
16	November	239,302	4,487	0	0
17	December	239,302	4,467	0	0
18	January 2000	239,302	4,447	0	0
19	February	239,302	4.427	0	0
20	March	238,615	4,407	0	٥
21	April	238,978	4,388	0	0
22	Мау	238,978	4,368	0	0 ·
23	June	238,978	4,348	0	0
24	July	238,978	4,328	0	0
25	August 2000	238,978	4,308	0	0
26				• •	
27	Totals	2.869,317	53,007	0	0
28					

28 29

30 SUPPORT SCHEDULE B:

31 Twelve Month Balances for Allowance Sales and By-Product Sales 32

32				
33		Total Proceeds	Proceeds from	
34		from Allowance	By-Product	Total All
35		Sales	Sales	Sale
36	Month	ES Form 2.0	ES Form 2.0	Proceeds
37				
38	September 1999	0	0	0
39	October	0	0	0
40	November	0	0	0
41	December	0	0	0
42	January 2000	a	0	0
43	February	0	0	0
44	March	0	0	٥
45	April	0	0	0
46	May	0	0	0
47	June	0	0	0
48	July	0	0	0
49	August 2000	0	0	0
50				
51	Totals	0	0	0

52 53

54 SUPPORT SCHEDULE C:

55 Twelve Month Balances for Junsdictional Revenues and Allocation Ratio 5ô

57 58		KY Jurisdictional Revenues.	Total Company Revenues,	KY Jurisdictional
59		Excluding Envir.	Excluding Envir.	Allocation
60		Surch, Revenues	Surch, Revenues	Ratio
61		ES Form 3.0,	ES Form 3.0,	KY Jurisdictional /
62	Month	Col. 6	Col. 9	Total Company
63				
64	September 1999	52,091,940	67,283,033	77.42%
65	October	43,835,676	57,529,108	75.85%
66	November	42,919,118	56,833,256	75.52%
67	December	48,396,564	65,149,356	74.29%
68	January 2000	55,577,835	74,038,114	75.07%
69	February	52,356,511	67,584,866	77.47%
70	March	44,061,245	59,980,442	73.46%
71	April	40,262,658	52.025.808	77.39%
72	May	41,832,397	53,761,870	77.81%
73	June	46,793,797	63,117,730	74.14%
74	July	53,889,596	67,969,502	79.28%
75	August 2000	50,922,567	66,853,035	76.17%
76				-
77	Totals	572,739,904	752,126,920	76.15%

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2 COMPARISON OF STAFF PROPOSED BASE PERIOD CONCEPT

3 WITH REPORTED AMOUNTS FOR THE EXPENSE MONTH AUGUST, 2000

4 COMPARISON FOR LOUISVILLE GAS & ELECTRIC COMPANY

5					
6	CALCULATION OF REVENUE REQUIREMENTS - AUG	UST 2000:		From ATTACHM	ENT II, Part 1
7			Balances from	Workpaper	
8			August, 2000	12-Month Ending	Average (1/12th)
9		-			
10	Environmental Compliance Rate Base -				
11	Pollution Control Plant in Service	ES Form 2.2	78,836,562	78,836,562	
12	Pollution Control CWIP Excluding AFUDC	ES Form 2.2	0	0	
13	Subtotal		78,836,562	78,836,562	
14	Deductions:				
15	Accumulated Depreciation on Pollution Control Plant	ES Form 2.2	17,537,979	17,537,979	
15	Pollution Control Deferred Income Taxes	ES Form 2.0	3,614,922	3,614,922	
17	Pollution Control Deferred Investment Tax Credit	ES Form 2.0	0	0	
18	Subtotal		21,152,901	21,152,901	
19					
20	Environmental Compliance Rate Base	-	57,683,661	57,683,661	4,806,972
21	Environmental Compliance Rate Base / 12		4.806,972		
22	Rate of Return - Environmental Compliance Rate Base		5.60%	5.60%	5.60%
23			: .		
24	Return on Environmental Compliance Rate Base		269,190	3,230,285	269,190
25					
26	Pollution Control Operating Expenses -				
27	Monthly Depreciation & Amortization Expense	See Support Sch. A	263,356	3,160,277	
28	Monthly Taxes Other Than Income Taxes	See Support Sch. A	7.976	97,092	
29	Monthly Insurance Expense	See Support Sch. A	1,537	19,592	
30	Monthly Emission Allowance Expense	See Support Sch. A	0	0	
31	Monthly Permitting Fees	See Support Sch. A	64,766	762,261	
32				[
33	Total Pollution Control Operating Expenses		337,635	4,039,222	336,602
34	· · · ·				
35	Gross Proceeds from By-Product &				
36	Allowance Sales	See Support Sch. B	0	173,491	14,458
37				1	
38	Total Company Environmental Surcharge Gross Reve	anue Requirement -		1	
39	Current Period	•		ĺ	
40		_		1	
41	Return on Environmental Compliance Rate Base	·	269,190	3,230,285	269,190
42	Pollution Control Operating Expenses		337,635	4,039,222	336,502
43	Less Gross Proceeds from By-Product & Allowance Sal	es	0	(173,491)	(14,458)
44				1	
45	Current Period - E(m)		606,825	7,096,016	591,334
46				1	
47	Jurisdictional Allocation Ratio - Current Period	See Support Schedule C	85.3977%	82.1767%	82.1767%
48		······································			
49	Average Jurisdictional Revenues for 12 Months				
50	for Current Period	See Support Schedule C	43.832,822	525,993,862	43,832,822
51					

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2	COMPARISON OF STAFF PROPOSED BASE PERIOD CONCEPT			
3	WITH REPORTED AMOUNTS FOR THE EXPENSE MONTH AUGUST, 2000			
4	COMPARISON FOR LOUISVILLE GAS & ELECTRIC COMPANY			
5				
52	Current Period Retail Environmental Surcharge Factor - CESF:	1		
53				
54	Total Company Environmental Surcharge Gross Revenue Requirement -			
55	Current Period	606,825	7,096,016	591,334
56		•		
57	Jurisdictional Allocation Ratio - Current Period	85.3977%	82.1767%	82.1767%
58		1		
59	Jurisdictional Environmental Surcharge Gross Revenue Requirement -	1		
60	Current Period	518,215	5,831,272	485,939
61				
62	Average Jurisdictional Revenues for 12 Months for Current Period	43.832.822	525,993,862	43,832.322
63				
64	Current Period Jurisdictional Environmental Surcharge Factor - CESF	1.18%	1.11%	1.11%
65		1		
66	Result Analysis:			
67	Total Company Revenue Requirement - Current Period	606.825	7,096,016	591,334
68	Total Company Rev. Requirement - Base Period - Assoc. w/ Retirements/Exclusions	169,270	2.032.836	169,403
69	Total Company Nev. Nequilement - Dase Fonder Abude, with the terminal Exclusion of		**************************************	
70	Total Company Net Revenue Requirement	437,555	5,063,180	421,931
71		1		
72	Total Company Revenue Requirement - As Filed for August 2000	437,556		
73	Difference	(1)		
74	Direferice	And the second s		
74	Jurisdictional Revenue Requirement - Current Period	518,215	5.831.272	485,939
	•	144,553	1.670.518	139.210
76	Juris. Revenue Requirement - Base Period - Associated with Retirements/Exclusions	144,555	1,010,010	103.210
77		373.662	4,160,754	346,729
78	Jurisdictional Net Revenue Requirement	3/3,002	4,100,734	
79		272 662		
80	Jurisdictional Revenue Requirement - As Filed for August 2000	373,663		
81	Difference	(1)		
82				

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