

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA)
: SS
COUNTY OF DAUPHIN)

Joseph R. Schadt, being duly sworn according to law, deposes and says that the prefiled written testimony and exhibits submitted on my behalf are true and correct to the best of my knowledge, information and belief.

Joseph R. Schadt

Sworn to and subscribed
before me this *13th* day
of *August, 2007*

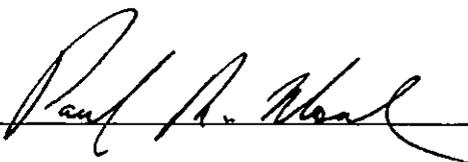
Carol Lee Netzel

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Carol Lee Netzel, Notary Public
City Of Harrisburg, Dauphin County
My Commission Expires April 10, 2011
Member, Pennsylvania Association of Notaries

AFFIDAVIT

STATE OF NEW JERSEY)
 : SS
COUNTY OF CAMDEN)

Paul R. Moul, being duly sworn according to law, deposes and says that the prefiled written testimony and exhibits submitted on my behalf are true and correct to the best of my knowledge, information and belief.



Sworn to and subscribed
before me this 10th day
of August 2007



Notary Public of New Jersey
I.D.#2165661 Com.Exp. 5/12/09
Ruby Marie Tucker

AFFIDAVIT

COMMONWEALTH OF NEW YORK)
: SS
COUNTY OF WESTCHESTER

JULIE M. CANNELL, being duly sworn according to law,
deposes and says that the prefiled written testimony and exhibits submitted on
my behalf are true and correct to the best of my knowledge, information and
belief.

Julie M. Cannell

Sworn to and subscribed
before me this 10 day
of August, 2007

Joy Ehrenzweig

JOY EHRENZWEIG
Notary Public, State of New York
No. 01EH6130825
Qualified in Westchester County
Commission Expires July 25, 2009

PPL ELECTRIC UTILITIES CORPORATION
TESTIMONY AND EXHIBITS

Hgtx AUG 16 2007

CASE-IN-CHIEF
STATEMENTS AND RELATED EXHIBITS

- Statement 1 – David DeCampli
- Statement 2 – Joseph R. Schadt and Exhibits JRS 1 through JRS 4
- Statement 3 – Denise A. Cunningham
- Statement 4 - David R. Woodruff and Exhibit DRW 1
- Statement 5 – Douglas A. Krall and Exhibit DRK 1
- Statement 6 – Joseph M. Kleha and Appendix A
- Statement 7 – Oliver G. Kasper and Appendix A
- Statement 8 – Timothy R. Dahl
- Statement 9 – Robert T. Homa
- Statement 10 – John J. Spanos
- Statement 11 – Paul R. Moul and Appendices A through I
- Statement 12 – Julie M. Cannell and Appendix A

DOCUMENT
FOLDER

DOCKETED
SEP 7 - 2007

FILING EXHIBITS

- Exhibit Future 1
- Exhibit Historic 1
- Exhibit Regs. § 53.52 and Exhibit Regs. §53.53, Part I and Part II
- Exhibit Regs. § 53.53, Part III
- Exhibit Regs. § 53.53 Part IV
- Exhibit Regs. Part V and Part VI
- Exhibit JMK 1

RECEIVED

AUG 17 2007

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Exhibit JMK 2
Exhibit JMK 3
Exhibit OGK 1
Exhibit OGK 2
Exhibit OGK 3
Exhibit TRD 1
Exhibit TRD 2
Exhibit TRD 3
Exhibit JJS 1
Exhibit JJS 2
Exhibit PRM 1

UPDATE TESTIMONY AND EXHIBITS

Statement 6 A – Joseph M. Kleha and Exhibits JMK-2A and JMK-2B

REBUTTAL
STATEMENTS AND RELATED EXHIBITS

Statement 2-R – Joseph R. Schadt and Exhibit JRS 5

Statement 4-R – David R. Woodruff and Exhibit DRW 1-Revised

Statement 5-R – Douglas A. Krall and Exhibits 1-R and 2-R

Statement 6-R – Joseph M. Kleha and Exhibit JMK 4 *And JMK-5 and JMK-6*

Statement 7-R – Oliver G. Kasper and Attachments 1 through 3

Statement 8-R – Timothy R. Dahl

Statement 11-R – Paul R. Moul and Exhibits PRM 2 and PRM 3

Statement 12-R- Julie M. Cannell

Statement 13-R – Terry Novatnack and Exhibit TN 1

EXHIBITS

Exhibit Future 1-Revised

Exhibit JMK 2A-Revised

HEARING EXHIBITS

Hearing Exhibit 1 (Affidavits)

Hearing Exhibit 2 (List of Testimony and Exhibits)

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Docket No. R-00072155

DOCUMENT
FOLDER

PPL Electric Utilities Corporation

DOCKETED
SEP 7 - 2007

Exhibit JMK 6

log in AUG 16 2007

Corrected Results of Exhibit JMK 2A-Revised

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AUG 17 2007

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

PPL Electric Utilities Corporation

2007 Distribution Rate Filing

Comparison - JMK 2A Revised vs JMK 2A Revised with Services Classified Demand & Customer Based on Min Syst Study

(\$000S)

	System	RS	RTS	GS-1	GS-3	LP-4	ISP	LP-5	IST	LP-6	LPEP	ISA	GH	SLAL	L5-S
JMK 2A-Revised - Services - Customer Only															
<u>PRESENT REVENUES</u>															
RETURN	128,374	55,214	(1,338)	22,823	37,454	10,102	688	376	245	(15)	117	283	1,742	672	8
TOTAL RATE BASE	2,020,330	1,335,498	37,413	181,070	282,895	75,577	3,830	3,070	818	292	819	189	20,699	78,063	94
RATE OF RETURN	6.35%	4.13%	-3.58%	12.60%	13.24%	13.37%	17.96%	12.25%	29.95%	-5.14%	14.29%	149.74%	8.42%	0.86%	8.51%
CLASS RATE IN % OF TOTAL	100.00%	65.04%	-56.38%	198.43%	208.50%	210.55%	282.83%	192.91%	471.65%	-80.94%	225.04%	2358.11%	132.60%	13.54%	134.02%
<u>PROPOSED REVENUES</u>															
REVENUE INCREASE	76,980	72,507	999	198	(932)	(339)	(125)	5	(89)	9	(7)	0	541	4,213	0
RETURN	170,304	94,739	(791)	22,908	36,919	9,912	619	379	197	(9)	114	283	2,039	2,989	8
TOTAL RATE BASE	2,020,330	1,335,501	37,413	181,070	282,895	75,577	3,830	3,070	818	292	819	189	20,699	78,063	94
RATE OF RETURN	8.43%	7.09%	-2.11%	12.65%	13.05%	13.12%	16.16%	12.35%	24.08%	-3.08%	13.92%	149.74%	9.85%	3.83%	8.51%
CLASS RATE IN % OF TOTAL	100.00%	84.10%	-25.03%	150.06%	154.80%	155.63%	191.70%	146.50%	285.65%	-36.54%	165.12%	1776.28%	116.84%	45.43%	100.95%
JMK 2A-Revised - Services - Demand & Customer															
<u>PRESENT REVENUES</u>															
RETURN	128,374	56,252	(1,415)	22,941	36,414	10,127	689	375	247	(15)	117	283	1,681	670	8
TOTAL RATE BASE	2,020,330	1,320,195	38,515	179,314	298,009	75,552	3,831	3,068	819	294	819	190	21,564	78,066	94
RATE OF RETURN	6.35%	4.26%	-3.67%	12.79%	12.22%	13.40%	17.98%	12.22%	30.16%	-5.10%	14.29%	148.95%	7.80%	0.86%	8.51%
CLASS RATE IN % OF TOTAL	100.00%	67.09%	-57.80%	201.42%	192.44%	211.02%	283.15%	192.44%	474.96%	-80.31%	225.04%	2345.67%	122.83%	13.54%	134.02%
<u>PROPOSED REVENUES</u>															
REVENUE INCREASE	76,980	71,019	998	(176)	698	(363)	(124)	8	(88)	9	(10)	0	628	4,379	2
RETURN	170,304	94,958	(869)	22,820	36,776	9,924	620	378	199	(10)	112	283	2,026	3,078	9
TOTAL RATE BASE	2,020,330	1,320,195	38,515	179,314	298,009	75,552	3,831	3,068	819	294	819	190	21,564	78,066	94
RATE OF RETURN	8.43%	7.19%	-2.26%	12.73%	12.34%	13.14%	16.18%	12.32%	24.30%	-3.40%	13.68%	148.95%	9.40%	3.94%	9.57%
CLASS RATE IN % OF TOTAL	100.00%	85.29%	-26.81%	151.01%	146.38%	155.87%	191.93%	146.14%	288.26%	-40.33%	162.28%	1766.90%	111.51%	46.74%	113.52%
Difference - JMK 2A-Revised - Revision with Services - Demand & Customer Less Services - Customer Only															
<u>PRESENT REVENUES</u>															
RETURN		1,038	(77)	118	(1,040)	25	1	(1)	2	0	0	0	(61)	(2)	0
TOTAL RATE BASE		(15,303)	1,102	(1,756)	15,114	(25)	1	(2)	1	2	0	1	865	3	0
RATE OF RETURN	0.00%	0.13%	-0.09%	0.19%	-1.02%	0.03%	0.02%	-0.03%	0.21%	0.04%	0.00%	-0.79%	-0.62%	0.00%	0.00%
CLASS RATE IN % OF TOTAL	0.00%	2.05%	-1.42%	2.99%	-16.05%	0.47%	0.32%	-0.47%	3.31%	0.63%	0.00%	-12.44%	-9.77%	0.00%	0.00%
<u>PROPOSED REVENUES</u>															
REVENUE INCREASE	0	(1,488)	(1)	(374)	1,630	(24)	1	3	1	0	(3)	0	87	166	2
RETURN	0	219	(78)	(88)	(143)	12	1	(1)	2	(1)	(2)	0	(13)	89	1
TOTAL RATE BASE	0	(15,306)	1,102	(1,756)	15,114	(25)	1	(2)	1	2	0	1	865	3	0
RATE OF RETURN	0.00%	0.10%	-0.15%	0.08%	-0.71%	0.02%	0.02%	-0.03%	0.22%	-0.32%	-0.24%	-0.79%	-0.45%	0.11%	1.06%
CLASS RATE IN % OF TOTAL	0.00%	1.19%	-1.78%	0.95%	-8.42%	0.24%	0.23%	-0.36%	2.61%	-3.79%	-2.84%	-9.38%	-5.33%	1.31%	12.57%

PPL ELECTRIC UTILITIES CORPORATION
 COST ALLOCATION DETAILS - 12 MONTHS ENDED 12/31/2007
 PRESENT OPERATING REVENUES AND EXPENSES, RETURN, RATE OF RETURN, AND CLASS RATE % OF TOTAL
 \$1,000

Line No.	Output	Pa Jurisdict Distribution	RS	RTS	GS-1	GS-3	LP-4	ISP	LP-5	
OPERATING REVENUES AT PRESENT RATE LEVELS										
SALES OF ELECTRICITY										
1			0	0	0	0	0	0	0	
2			631,657	386,480	3,991	73,866	109,784	29,104	1,781	1,168
3	R11		9,262	6,046	48	1,227	1,180	433	22	171
4	RRT		640,919	392,526	4,039	75,093	110,964	29,537	1,803	1,339
5	ANN		2,917	2,762	(2)	(27)	394	250	16	3
6	0		643,835	395,288	4,037	75,066	111,358	29,787	1,819	1,342
7	ROOT		32,748	21,089	619	2,931	4,895	1,201	61	47
8	ROT		676,583	416,377	4,656	77,997	116,253	30,988	1,880	1,389
OPERATING EXPENSES										
OPERATION AND MAINTENANCE EXPENSES										
9	EE20		0	0	0	0	0	0	0	0
10	EE30		134,943	84,316	2,550	11,610	20,192	5,733	290	238
11	EEOT		204,693	159,320	2,763	15,628	17,000	3,850	192	199
12	EE00		339,636	243,636	5,313	27,238	37,192	9,583	482	437
DEPRECIATION EXPENSE										
13	ED20		0	0	0	0	0	0	0	0
14	ED30		88,481	57,279	1,702	7,969	12,761	2,995	148	300
15	EDOT		21,162	14,821	352	1,982	2,456	585	31	23
16	ED00A		109,643	72,100	2,054	9,951	15,217	3,580	179	323
TAXES										
17	ET1		1,586	1,034	30	143	235	59	3	3
18	ET001		9,654	6,567	170	890	1,237	301	15	11
19	TXTA		8,378	5,563	150	715	1,180	284	15	13
20	TX93		(1,673)	(1,084)	(31)	(150)	(244)	(60)	(3)	(2)
21	TXG		37,986	23,322	238	4,429	6,570	1,757	107	79
22	TSIT1		9,824	1,722	(466)	2,629	4,430	1,297	95	36
23	TFTX		33,163	7,237	(1,387)	9,012	14,022	4,070	298	114
24	TFIT1		98,918	44,378	(1,296)	17,868	27,430	7,698	530	254
25	TEXP1		548,197	360,112	6,071	55,057	79,839	20,881	1,191	1,014
26	PRRTA		128,374	56,252	(1,415)	22,940	36,414	10,127	689	375
27	RBX		2,020,330	1,320,195	38,515	179,314	288,009	75,552	3,831	3,068
28	PRRTR		6.35%	4.26%	-3.67%	12.79%	12.22%	13.40%	17.98%	12.22%
29	PRCLR		100.00%	67.09%	-57.80%	201.42%	192.44%	211.02%	283.15%	192.44%

PPL ELECTRIC UTILITIES CORPORATION
 COST ALLOCATION DETAILS - 12 MONTHS ENDED 12/31/2007
 PRESENT OPERATING REVENUES AND EXPENSES, RETURN, RATE OF RETURN, AND CLASS RATE % OF TOTAL
 \$1,000

Line No.		Output	IST	LP-6	LPEP	ISA	GH	SL/AL	L5-S
	OPERATING REVENUES AT PRESENT RATE LEVELS								
	SALES OF ELECTRICITY								
1	TRANSMISSION REVENUES		0	0	0	0	0	0	0
2	REVISED DISTRIBUTION REVENUES		564	36	333	538	6,459	17,518	35
3	LATE PAY CHARGES PRESENT RATES	R11	27	0	0	0	56	51	1
4	SALE OF ELECTRICITY	RRT	591	36	333	538	6,515	17,569	36
5	ANNUALIZATION PRESENT REVENUES	ANN	12	(4)	3	6	(74)	(423)	0
6	ADJUSTED ELECTRIC SALES	0	603	32	336	544	6,441	17,146	36
7	OTHER OPERATING REVENUES	ROOT	12	4	24	3	350	1,512	1
8	TOTAL OPERATING REVENUES	ROT	615	36	360	547	6,791	18,658	37
	OPERATING EXPENSES								
	OPERATION AND MAINTENANCE EXPENSES								
9	TRANSMISSION	EE20	0	0	0	0	0	0	0
10	DISTRIBUTION	EE30	64	23	14	14	1,463	8,428	8
11	OTHER OPER & MAINT EXPENSES	EEOT	34	13	73	9	1,249	4,359	4
12	TOTAL OPER & MAINT EXPENSES	EE00	98	36	87	23	2,712	12,787	12
	DEPRECIATION EXPENSE								
13	TRANSMISSION	ED20	0	0	0	0	0	0	0
14	DISTRIBUTION	ED30	80	29	46	19	1,008	4,137	9
15	OTHER DEPREC EXP	EDOT	5	2	11	1	183	708	1
	TOTAL DEPRECIATION AND AMORTIZATION EXPENSE								
16	AMORTIZATION EXPENSE	ED00A	85	31	57	20	1,191	4,845	10
	TAXES								
17	CAPITAL STOCK PRESENT LEVEL	ET1	1	0	1	0	17	62	0
18	OTHER OTHER TAXES	ET001	4	2	5	0	90	343	0
19	DEFERRED INCOME TAXES	TXTA	4	1	7	0	83	364	1
20	NET INVESTMENT TAX CREDIT	TX03	(1)	0	(1)	0	(17)	(79)	0
21	GROSS RECEIPTS TAX	TXG	36	2	20	32	380	1,012	2
22	TOTAL PA INCOME TAX	TSIT1	34	(5)	16	46	154	(356)	1
23	TOTAL FED INC TAX	TFTX	107	(16)	51	143	500	(990)	3
24	TOTAL TAXES	TFIT1	185	(16)	99	221	1,207	356	7
25	TOTAL OPERATING EXPENSES	TEXP1	368	51	243	264	5,110	17,988	29
26	RETURN (LN 8 - 25)	PRRTA	247	(15)	117	283	1,681	670	8
27	TOTAL RATE BASE	RBX	819	294	819	190	21,564	78,066	94
28	RATE OF RETURN (LN 26 / LN 27)	PRRTR	30.16%	-5.10%	14.29%	148.95%	7.80%	0.86%	8.51%
29	CLASS RATE IN % OF TOTAL	PRCLRT	474.96%	-80.31%	225.04%	2345.67%	122.83%	13.54%	134.02%

PPL ELECTRIC UTILITIES CORPORATION
 COST ALLOCATION DETAILS - 12 MONTHS ENDED 12/31/2007
 PROPOSED REVENUES AND EXPENSES, RETURN, RATE OF RETURN AND CLASS RATE % OF TOTAL
 \$1,000

Line No.	Output	Pa Jurisdct Distribution	RS	RTS	GS-1	GS-3	LP-4	ISP	LP-5
OPERATING REVENUES AT PROPOSED RATE LEVELS									
SALES OF ELECTRICITY									
1			0	0	0	0	0	0	0
2			631,657	386,480	3,991	73,866	109,784	29,104	1,781
3			76,980	71,019	998	(176)	698	(363)	(124)
ADJUSTED RATE REVENUES									
4	R11P		708,637	457,499	4,989	73,690	110,482	28,741	1,657
5	ANNP		9,262	6,046	48	1,227	1,180	433	22
6	RRTP		2,916	2,762	(2)	(27)	394	250	16
7	ARTTP		720,815	466,307	5,035	74,890	112,056	29,424	1,695
8	ROOT		720,815	466,307	5,035	74,890	112,056	29,424	1,695
9	ROTP		32,748	21,089	619	2,931	4,895	1,201	61
9			753,563	487,396	5,654	77,821	116,951	30,625	1,756
OPERATING EXPENSES									
OPERATION AND MAINTENANCE EXPENSES									
10	EE20		0	0	0	0	0	0	0
11	EE30		134,943	84,316	2,550	11,610	20,192	5,733	290
12	EEOT		205,321	159,902	2,765	15,654	17,015	3,851	192
13	EE00		340,264	244,218	5,315	27,264	37,207	9,584	482
DEPRECIATION EXPENSE									
14	ED20		0	0	0	0	0	0	0
15	ED30		88,481	57,278	1,702	7,969	12,761	2,995	148
16	EDOT		21,162	14,823	352	1,982	2,456	585	31
17	ED00		109,643	72,101	2,054	9,951	15,217	3,580	179
TAXES									
18	ET1P		1,741	1,135	33	157	258	64	3
19	ET001		9,654	6,587	170	890	1,237	301	15
20	TXTA		8,378	5,561	150	715	1,180	284	15
21	TX93		(1,673)	(1,084)	(31)	(150)	(244)	(60)	(3)
22	TXG		42,528	27,512	297	4,419	6,611	1,736	100
23	TSIT1		16,984	8,333	(372)	2,808	4,492	1,252	84
24	TFTX		55,743	28,079	(1,093)	8,947	14,217	3,960	261
25	TFIT1		133,355	76,120	(846)	17,786	27,751	7,537	475
26	TEXP1		583,262	392,439	6,523	55,001	80,175	20,701	1,136
27	PRERTN		170,304	94,959	(869)	22,820	36,776	9,924	620
28	RBX		2,020,330	1,320,195	38,515	179,314	298,009	75,552	3,831
29	PRRTR		8.43%	7.19%	-2.26%	12.73%	12.34%	13.14%	16.18%
30	PRCLRT		100.00%	85.29%	-26.81%	151.01%	146.38%	155.87%	191.93%

PPL ELECTRIC UTILITIES CORPORATION
 COST ALLOCATION DETAILS - 12 MONTHS ENDED 12/31/2007
 PROPOSED REVENUES AND EXPENSES, RETURN, RATE OF RETURN AND CLASS RATE % OF TOTAL
 \$1,000

Line No.	Output	IST	LP-6	LPEP	ISA	GH	SLJAL	L5-S
OPERATING REVENUES AT PROPOSED RATE LEVELS								
SALES OF ELECTRICITY								
1	TRANSMISSION REVENUES	0	0	0	0	0	0	0
2	DISTRIBUTION REVENUES	564	36	333	538	6,459	17,518	35
3	PROPOSED REVENUE INCREASE	(88)	9	(10)	0	628	4,379	2
ADJUSTED RATE REVENUES								
4	LATE PAYMENT CHARGES R11P	27	0	0	0	56	51	1
5	ANNUALIZATION ADJUSTMENT ANNP	12	(4)	3	6	(74)	(423)	0
6	TOTAL SALE OF ELECTRICITY RRTP	515	41	326	544	7,069	21,525	38
7	PROPOSED SALES & LATE PAYMENTS ARTTP	515	41	326	544	7,069	21,525	38
8	OTHER OPERATING REVENUES ROOT	12	4	24	3	350	1,512	1
9	TOTAL OPERATING REVENUES ROTP	527	45	350	547	7,419	23,037	39
OPERATING EXPENSES								
OPERATION AND MAINTENANCE EXPENSES								
10	TRANSMISSION EE20	0	0	0	0	0	0	0
11	DISTRIBUTION EE30	64	23	14	14	1,463	8,428	8
12	OTHER OPER & MAINT EXPENSES EEOT	34	13	73	9	1,250	4,359	4
13	TOTAL OPER & MAINT EXPENSES EE00	98	36	87	23	2,713	12,787	12
DEPRECIATION EXPENSE								
14	TRANSMISSION ED20	0	0	0	0	0	0	0
15	DISTRIBUTION ED30	80	29	46	19	1,008	4,137	9
16	OTHER DEPRECIATION EXPENSE EDOT	5	2	11	1	183	708	1
17	TOTAL DEPRECIATION AND AMORTIZATION EXPENSE ED00	85	31	57	20	1,191	4,845	10
TAXES								
18	CAPITAL STOCK PROP LEVEL ET1P	1	0	1	0	18	68	0
19	OTHER W/O CAP STOCK ET001	4	2	5	0	90	343	0
20	DEFERRED INCOME TAXES TXTA	4	1	7	0	83	364	1
21	NET INVESTMENT TAX CREDIT TX93	(1)	0	(1)	0	(17)	(79)	0
22	GROSS RECEIPTS TAX TXG	30	2	19	32	417	1,270	2
23	TOTAL PA INCOME TAX TSIT1	26	(4)	15	46	212	55	1
24	TOTAL FED INC TAX TFTX	81	(13)	48	143	686	306	4
25	TOTAL TAXES TFIT1	145	(12)	94	221	1,489	2,327	8
26	TOTAL OPERATING EXPENSES TEXP1	328	55	238	264	5,393	19,959	30
27	RETURN (LN 9 - 26) PRERTN	199	(10)	112	283	2,026	3,078	9
28	TOTAL RATE BASE RBX	819	294	819	190	21,564	78,066	94
29	RATE OF RETURN (LN 27 / LN 28) PRRTR	24.30%	-3.40%	13.68%	148.95%	9.40%	3.94%	9.57%
30	CLASS RATE IN % OF TOTAL PRCLRT	288.26%	-40.33%	162.28%	1766.90%	111.51%	46.74%	113.52%

ORIGINAL

PPL Electric Utilities Corporation
Docket No. R-00072155
Index of Direct Testimony

<u>Witness</u>	<u>Nature of Testimony</u>	<u>Statement</u>	<u>Exhibits</u>
David G. DeCampi	<ul style="list-style-type: none">• Current Financial Condition• Management Effectiveness• Perspective on Filing	1	—
Joseph R. Schadt	<ul style="list-style-type: none">• 2007 Operating Budgets• 2006 Actual Results of Operations	2	JRS 1-4
Denise A. Cunningham	<ul style="list-style-type: none">• Rate Base Adjustments• Revenue Adjustments• Expense Adjustments	3	—
David R. Woodruff	<ul style="list-style-type: none">• Sales Forecast• Annualization of Sales and Revenue• Load Research	4	DRW 1
Douglas A. Krall	<ul style="list-style-type: none">• DSR Background• AMR/Other Capital• Strategic Rate Design	5	DAK 1
Joseph M. Kleha	<ul style="list-style-type: none">• Cost Allocation Studies• Cash Working Capital• Taxes• Expense Adjustments• Cost Recovery Mechanisms	6	JMK 1-3
Oliver G. Kasper	<ul style="list-style-type: none">• Specific Rate Design• Class Revenue Allocation• Tariff Rules• Proofs of Revenue• Pro Forma Revenue Adjustments	7	OGK 1-3

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<u>Witness</u>	<u>Nature of Testimony</u>	<u>Statement</u>	<u>Exhibits</u>
Timothy R. Dahl	<ul style="list-style-type: none"> • Universal Service Programs • Sustainable Development Program 	8	TRD 1-3
Robert T. Homa	<ul style="list-style-type: none"> • DSR Programs 	9	-
John J. Spanos	<ul style="list-style-type: none"> • Depreciation Service Life Studies 	10	JJS 1-2
Paul R. Moul	<ul style="list-style-type: none"> • Cost of Common Equity • Capital Structure • Embedded Cost of Capital • Fair Rate of Return 	11	PRM 1
Julie M. Cannell	<ul style="list-style-type: none"> • Cost of Common Equity • Investor Perspective 	12	-

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Docket No. R-00072155

PPL Electric Utilities Corporation

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Statement No. 1

Direct Testimony of David G. DeCampli

1 Q. Please state your full name and business address.

2 A. David G. DeCampi, Two North Ninth Street, Allentown, Pennsylvania 18101.

3

4 Q. By whom are you employed and in what capacity?

5 A. I am President of PPL Electric Utilities Corporation ("PPL Electric" or the
6 "Company") (effective April 1, 2007).

7

8 Q. What is your educational background?

9 A. I hold a bachelor's degree in electrical engineering from Drexel University and
10 a master's degree in organizational dynamics from the University of
11 Pennsylvania.

12

13 Q. How long have you been employed by PPL Electric and in what capacities?

14 A. I joined PPL Electric in December 2006, as senior vice president of
15 Transmission and Distribution Engineering and Operations. Prior to joining
16 PPL Electric, I was vice president of Asset Investment Strategy and
17 Development for Exelon Energy Delivery. In that position, I was responsible
18 for system capacity planning and the reliability and operational performance
19 investment strategies for both PECO Energy in Philadelphia and
20 Commonwealth Edison in Chicago.

21 I started my career at PECO Energy as a project engineer and held a
22 number of positions of increasing responsibility before being named director of
23 Customer Service and Business Process Reengineering in 1992. I was

1 named director of Transmission and Substations in 1995, the director of
2 Engineering and System Planning in 1998, and vice president of Gas and
3 Electric Operations in 1999.

4 Following PECO's merger with Commonwealth Edison in 2000, I
5 became vice president of Merger Implementation and Operations Strategy. I
6 later served as vice president of Regional Operations for Commonwealth
7 Edison and vice president and chief integration officer for Exelon Energy
8 Delivery.

9
10 Q. Mr. DeCampi, briefly describe the subject matter of your testimony in this
11 proceeding.

12 A. I will discuss the reasons why PPL Electric decided to file this case. I also will
13 describe the financial challenges facing the Company and the ways in which
14 management has responded to those challenges. Finally, I will assess the
15 effectiveness of management's responses and the implications for this
16 proceeding. In my direct testimony, I will present a high level perspective on
17 these issues; other PPL Electric witnesses will address the technical details.

18
19 Q. Are you sponsoring any exhibits in PPL Electric's filing?

20 A. I am co-sponsoring the Statement of Reasons, which is included as Section A
21 of Exhibit Future 1. I say that I am co-sponsoring the Statement of Reasons
22 recognizing that it summarizes all of the critical aspects of PPL Electric's filing
23 and, for that reason, it is being sponsored by all of the Company's witnesses.

1 Q. Why did PPL Electric decide to file this rate case?

2 A. This case provides PPL Electric with the opportunity to pursue four objectives.
3 First, the Company can request additional revenues necessary to maintain an
4 appropriate level of financial health, which will enable the Company to sustain
5 high quality service for its customers. Second, it can propose several new
6 energy efficiency and demand side management ("DSM") initiatives. Third,
7 the Company can request additional funding for its universal service and
8 community programs. Fourth, and finally, the Company can propose new rate
9 designs and revenue allocations to address changes in the electric utility
10 industry. The timing of the request reflects PPL Electric's intent to seek
11 smaller rate adjustments every few years as higher costs warrant, rather than
12 waiting for an extended period and seeking a much larger increase. This
13 approach aligns with customer preferences and provides them with more
14 current cost-of-service information.

15
16 Q. Please briefly describe PPL Electric's current financial condition as it relates to
17 the Company's first objective for this filing.

18 A. As I will discuss later in my testimony, PPL Electric has been highly effective in
19 managing its business and controlling its costs, but there are limits on what
20 this strategy can accomplish. The Company now is approaching those limits.
21 In its last distribution rate proceeding at Docket No. R-00049255, PPL Electric
22 was authorized to earn a return on equity of 10.70 percent. In calendar year
23 2006, the Company actually earned a return on equity of 7.32 percent, and

1 expects its return on equity to be even lower in 2007. Such returns are
2 inadequate by any standard and constitute one of the principal reasons that
3 PPL Electric now is requesting an increase in its retail distribution rates.
4

5 Q. Please elaborate on the second reason PPL Electric decided to file this case.

6 A. PPL Electric recognizes that, as the Customer Choice transition periods end
7 and Pennsylvania moves to fully competitive retail electricity markets,
8 customers will have more opportunities to make choices about their electricity
9 supply. As a result, they will need more information on energy issues. To
10 help meet this need, the Company is proposing in this filing three new
11 initiatives: (1) a Meter Data Management System ("MDMS"), which will
12 enhance the functionality of the Company's Automated Meter Reading
13 ("AMR") system; (2) five new energy efficiency and energy conservation
14 programs, and (3) additional consumer education regarding the wise use of
15 energy. Each of these initiatives is described in detail in the Statement of
16 Reasons. Together, these three initiatives will provide the Company's
17 customers with information and options that will enable them to manage their
18 use of energy and, ultimately, to better manage the cost of that energy.
19

20 Q. What initiatives is the Company proposing to meet its third objective regarding
21 universal service and community programs?

22 A. PPL Electric realizes that some of its customers simply are unable to pay their
23 electric utility bills and, to assist those customers, the Company currently

1 administers a family of universal service programs. The Company's current
2 programs include the following: OnTrack, WRAP, Operation HELP and
3 CARES. In general terms, OnTrack offers reduced payment plans and
4 arrearage forgiveness; WRAP provides free weatherization measures and
5 energy conservation education; Operation HELP pays for any type of home
6 heating bill; and CARES is an evaluation and referral service for customers
7 with temporary hardships. PPL Electric also aggressively promotes the
8 availability of LIHEAP, which provides energy assistance grants to low-income
9 households, i.e., at or below 150 percent of the federal poverty level. In this
10 filing, the Company requests permission to increase funding for these
11 programs by approximately \$7 million, or almost 36 percent. Specifically, PPL
12 Electric proposes to increase annual funding for OnTrack and WRAP by
13 \$5,800,000 and \$1,000,000, respectively, from the levels approved by the
14 Commission in the Company's previous distribution rate case at Docket No.
15 R-00049255. The Company will increase its annual corporate contribution to
16 Operation HELP by over 40 percent – from \$700,000 to \$1,000,000.
17 Donations from customers, employees and retirees may increase as the result
18 of PPL Electric's annual solicitation efforts. Finally, PPL Electric proposes to
19 slightly increase funding for CARES to reflect changes in wages for PPL
20 Electric personnel who work on the program.

21
22 Q. What program is the Company proposing to assist community development in
23 its service area?

1 A. PPL Electric proposes to implement a new program called the Sustainable
2 Development Program ("SDP"). The purpose of the SDP is to assist
3 community development organizations by: (1) providing grant funds to
4 encourage the construction of "green" buildings, (2) enhancing orderly
5 development through promotion of various downtown improvements, and
6 (3) leveraging state funding for regional marketing initiatives that will also
7 improve regional cooperation. The Company proposes funding the SDP at
8 \$1.25 million annually for a period of three years (2008 through 2010).

9
10 Q. Finally, please discuss the fourth objective of this filing, which addresses
11 changes in rate design and revenue allocation.

12 A. The Company is proposing to move its distribution rate design further toward a
13 flat monthly fee for electric delivery services, rather than continue to charge
14 rates based on consumption. PPL Electric's rates for service to general
15 residential and small commercial customers currently include three usage
16 steps with declining prices per kWh as usage increases. These rate designs
17 do not accurately reflect how the Company incurs costs to provide service to
18 its retail customers. Because it is a distribution company, most of PPL
19 Electric's costs are fixed and do not vary with customers' consumption. The
20 Company believes that its rates should be modified over time to reflect this
21 pattern. In this filing, the Company is proposing to increase the Rate Schedule
22 RS customer charge to \$10, with a corresponding reduction in the tail block

1 commodity charge to 1.742¢/kWh. The Company also is proposing similar
2 rate design changes to Rate Schedule GS-1.

3

4 Q. How is the Company proposing to address revenue allocation issues?

5 A. The Company is proposing to allocate the revenue increase in a way that will
6 move the rate of return for each rate schedule toward the system average rate
7 of return. Specifically, the increase was allocated to customer classes based
8 on the results of a class cost of service study which was applied subject to the
9 following two conditions. First, the rate of return for each rate schedule must
10 move half-way from that rate schedule's return at present rates to the system
11 average rate of return. Second, calculated on a percentage basis, no rate
12 schedule can receive a distribution rate increase greater than twice the system
13 average distribution rate increase. PPL Electric will apply a similar approach
14 in future cases and plans to implement rates that are at or near full cost of
15 service in one or two additional rate cases. The Company believes that this
16 approach is appropriate under the long-established principles of cost of
17 service and gradualism, and is fully consistent with the Commonwealth Court
18 decision in *Lloyd v. Pa. Public Utility Commission*, 904 A.2d 1010 (Pa. Cmwlth.
19 2006).

20

21 Q. What challenges do you face in managing an electric distribution company
22 such as PPL Electric?

1 A. The primary challenge is to manage costs while, at the same time, maintaining
2 high levels of customer service and customer satisfaction. The Company
3 owns a substantial number of facilities required to deliver electricity to its
4 customers, and the costs associated with these facilities continue to increase.
5 The Statement of Reasons provides several examples of these cost drivers.
6 Since the Company filed its last distribution rate increase request in March
7 2004, the cost of transformers has increased by about 80 percent. The cost of
8 wire used for power lines has increased by about 25 percent. Every year, the
9 Company must repair and replace those facilities as needed. PPL Electric has
10 invested more than \$450 million to maintain, improve or expand its distribution
11 system over the past three years. The Company expects to invest an
12 additional \$1.1 billion over the next five years. As detailed in the Statement of
13 Reasons, PPL Electric's operating expenses are substantial and also continue
14 to increase. The cost of labor, poles, wires, tools, vehicles and equipment has
15 increased since the Company's current rates became effective on January 1,
16 2005. Costs for employee health care, bucket trucks, fuel and other materials
17 have experienced double-digit percentage increases since 2004. The
18 Company expects these cost increases to continue for the foreseeable future.

19

20 Q. How has PPL Electric responded to these cost challenges?

21 A. To address the earnings implications of these capital and expense needs, PPL
22 Electric has pursued an aggressive program of cost-effective operations.
23 First, the Company has reduced its staffing levels while maintaining high

1 quality service. Since 1999, PPL Electric has reduced its back office, support
2 and management workforce by 1,600 positions, or 42% percent, through a
3 variety of effectiveness and efficiency improvements. The elimination of these
4 positions, however, did not reduce the Company's field workforce. Since
5 2004, the Company has hired more than 250 employees to replace linemen,
6 ground-hands, electricians and engineers who retired. In fact, today the
7 Company has the same number of front-line forces performing lineman and
8 electrical work as it had in 1990. Second, the Company utilizes new
9 technology to manage its costs. As described in more detail in the Statement
10 of Reasons, PPL Electric has completed implementation of the Work
11 Management System ("WMS") to manage workflow more effectively; it is
12 installing a Meter Data Management System ("MDMS") to leverage AMR data
13 beyond monthly billing; it is upgrading computer software to enhance its
14 substation and transmission maintenance management system; it is installing
15 a new Outage Management System; it is installing mobile dispatch terminals in
16 all construction vehicles; and it is expanding the use of automation. Third,
17 PPL Electric reviews and, where appropriate, modifies business processes to
18 manage costs. The Company implemented a maintenance priority system to
19 rank and eliminate lower priority work. It also is taking advantage of improved
20 data availability and analytical techniques to increase the utilization of the
21 existing infrastructure and defer discretionary equipment upgrades

22

23 Q. In your opinion, have these management initiatives been effective?

1 A. Yes. These efforts to control costs through effective management, use of
2 improved business processes and application of new technology have been
3 highly successful. PPL Electric's residential electric rates are less than the
4 average in both Pennsylvania and the Northeast and are expected to remain
5 that way, even if the Commission grants this requested increase in full.
6

7 Q. Has PPL Electric been able to manage its costs without adversely affecting the
8 quality of service to its customers?

9 A. Yes. PPL Electric's customers consistently rank the Company as one of the
10 best electric utilities in the country for quality and service. Over the past nine
11 years, PPL Electric has won numerous industry awards for quality of service
12 and customer satisfaction. This year, for the sixth time in eight years, PPL
13 Electric has ranked highest among electric utilities in the eastern United States
14 in J.D. Power and Associates' annual study of business customer satisfaction.
15 The Company also won this award in 2000, 2001, and 2003-2005. In its 2007
16 study of business customer satisfaction, J.D. Power and Associates
17 interviewed nearly 13,000 businesses served by the 58 largest electric utilities
18 in the nation, based on the number of businesses served. In the study, PPL
19 Electric ranked first in the East among 15 utilities and fourth in the country.
20 The award is the Company's thirteenth overall – more than any other utility in
21 the country – since J.D. Power and Associates began studying utility customer
22 satisfaction. In addition to its six business customer satisfaction awards, PPL
23 Electric has earned the top honor for residential customer satisfaction in the

1 East seven out of eight years. The Company won the residential award in
2 1999 and 2001-2006. We are very proud of these accomplishments.

3

4 Q. How should the Commission reflect this management effectiveness in
5 consideration of the Company's request for a distribution rate increase?

6 A. The Company's rate of return expert, Paul R. Moul, recommends that the
7 Company be allowed an opportunity to earn a rate of return on equity of
8 11.50 percent. This recommendation is at the mid-point of the range of equity
9 returns developed in his study. In my opinion, PPL Electric's management
10 effectiveness is one of several considerations that support Mr. Moul's
11 recommended rate of return on equity of 11.50 percent.

12

13 Q. Does this conclude your direct testimony?

14 A. Yes, it does.

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Docket No. R-00072155

PPL Electric Utilities Corporation

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SECRETARY'S BUREAU

Statement No. 2

Direct Testimony of Joseph R. Schadt

1 A. I began my employment with Pennsylvania Power & Light Company ("PP&L")
2 as an Accountant in the General Accounting Department and remained there
3 for four years, progressing to the position of Senior Accountant. In General
4 Accounting, I participated in the maintenance and closing of PP&L's books and
5 records and had primary responsibility for the calculation of the actual cost
6 components of the Energy Cost Rate, unbilled revenues and the miscellaneous
7 billing function. Subsequently, I transferred to the Financial Reporting
8 Department where I remained for nine years. I was promoted to Accounting
9 Analyst in Financial Reporting and my responsibilities included the completion
10 and filing of the Annual Report to Shareowners, Forms 10-K and 10-Q for the
11 Securities and Exchange Commission and the FERC Form 1. Through my
12 experience in the General Accounting and Financial Reporting Departments, I
13 developed a thorough knowledge of accounting and reporting concepts
14 applicable to the electric utility industry in general and PPL Electric in particular.
15 In November 1994, I was promoted to the position of Supervisor-Accounting
16 Research. In this position, I had responsibility for developing the PP&L's
17 policies regarding open accounting issues applicable to the industry. In
18 addition, I was significantly involved in special projects, such as transmission
19 access, stranded costs, and other deregulation issues. In February 1996, I was
20 promoted to Manager-Financial Support Services; in January 2000, I was
21 promoted to Director-Financial Support Services; and in January 2006, I was
22 promoted to Senior Director-Financial Planning, my current position. In this
23 position, I have primary responsibility for PPL Corporation and its subsidiaries'

1 (including PPL Electric) financial forecasting, budgeting and business planning
2 functions.

3
4 Q. Are you active in any professional organizations?

5 A. I am a past chairman and a current member of the Accounting Standards
6 Committee of the Edison Electric Institute.

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

9 A. My testimony will describe the derivation of data used to calculate financial
10 results for the historic test year ended December 31, 2006 and to project the
11 financial results for the future test year ending December 31, 2007.

12
13 Q. PPL Electric is requesting an increase in electric distribution rates of
14 approximately \$83.6 million annually. Is this requested increase supported by
15 data for a future or experienced test year?

16 A. PPL Electric will rely primarily on data for a future test year ending
17 December 31, 2007. These data are included in Exhibit Future 1. The
18 Commission's regulations require that a public utility that uses a future test year
19 also must submit data for a historic year, consisting of the twelve months
20 immediately preceding the future test year. As a result, PPL Electric also has
21 submitted data for the 12 months ended December 31, 2006. These data are
22 set forth in Exhibit Historic 1.

1 Q. You have stated that the data in Exhibit Future 1 are for the 12 months ending
2 December 31, 2007. This is obviously a projection of future data. Will you
3 please explain the source of this future data?

4 A. The basic data in Exhibit Future 1 was derived from PPL Electric's budget and
5 forecast figures for the 12 months ending December 31, 2007. I will explain the
6 procedures followed in preparing the Operating Budget later in my testimony.
7 Mr. Krall explains the procedures followed in preparing the Capital Budget in his
8 direct testimony. In effect, the budget figures take the place of PPL Electric's
9 actual book figures which serve as the basis for the December 31, 2006 data in
10 Exhibit Historic 1.

11
12 Q. Mr. Schadt, are you sponsoring any exhibits in this proceeding?

13 A. Yes, I am sponsoring Exhibits JRS 1 through JRS 4. I also am sponsoring
14 portions of Exhibit Regs., Part I-General Information, Part II-Primary
15 Statements of Rate Base and Operating Income, Part III-Rate of Return and
16 Part VI-Unadjusted Comparative Balance Sheets and Operating Income
17 Statements.

18
19 Exhibits Historic 1 and Future 1

20 Q. Are you sponsoring any schedules in Exhibits Historic 1 and Future 1?

21 A. Yes. I am sponsoring the following: Schedules B-1, B-2, B-3, B-4, B-6, B-7, B-
22 8 and B-9 of Exhibits Historic 1 and Future 1.
23

1 Q. Mr. Schadt, would you describe the material presented on Schedules B-1
2 through B-9 of Exhibits Historic 1 and Future 1?

3 A. Schedules B-1 show the balance sheets of PPL Electric, excluding all its non-
4 regulated subsidiaries, at December 31, 2006 and December 31, 2007, which
5 include the assets and liabilities related to the electric utility operations and
6 investments in non-utility property.

7 Schedules B-2 are statements of electric utility operations showing the
8 operating revenues and expenses and income for the year ended
9 December 31, 2006 and the year ending December 31, 2007. Electric
10 operating revenues shown on these schedules are set forth by source in
11 Schedules B-3.

12 Schedules B-4 provide the operation and maintenance expenses of the
13 electric utility operations by detailed accounts, including the major categories of
14 expense: power production, transmission, regional market, distribution,
15 customer accounts, customer service and informational, sales, and
16 administrative and general. The expenses in the power production category
17 represent the cost of purchased power and include, among other items,
18 purchases to meet Provider of Last Resort ("POLR") requirements, nuclear
19 decommissioning costs and purchases from non-utility generation companies.
20 Power production costs are not germane to the determination of distribution
21 revenue requirements in this filing. Later in my testimony, I will explain certain
22 allocations that were used to arrive at projections of operation and maintenance
23 expenses in the categories shown on both Schedules B-2 and B-4 of Exhibit
24 Future 1.

1 Schedules B-5, which are sponsored by Mr. Kleha, set forth the details
2 of taxes applicable to the electric utility operations. The embedded cost of debt
3 and preferred and preference capital at December 31, 2006 and
4 December 31, 2007 is shown on Schedules B-6 and B-7, respectively. PPL
5 Electric's capital structure from 2002 through December 31, 2007 is shown on
6 Schedules B-8.

7
8 Schedules B-9 set forth the claimed composite rate of return as of
9 December 31, 2006 and December 31, 2007. In each instance, the
10 capitalization ratios at the end of the respective year, as shown on Schedule B-
11 8, were used. The composite cost rate for long-term debt (Schedule B-6) and
12 the composite cost rate for preferred and preference (Schedule B-7) are
13 reflected as embedded costs. As to common equity, the claimed rate of return
14 on common equity is 11.5%. PPL Electric's rate of return expert, Mr. Moul, is
15 recommending, and his studies support, a fair rate of return on common equity
16 at this level. The overall rate of return reflected on Schedule C-1 in Exhibit
17 Future 1 will produce a return on common equity of 11.5%.

18
19 All the data shown in Schedules B-1 through B-9 were taken either from
20 the books and records of PPL Electric, excluding all its non-regulated
21 subsidiaries, for the 12 months ended December 31, 2006 and prior, or were
22 derived from operating and construction budget data for the 12 months ending
23 December 31, 2007.

1 Q. Please describe the source and method used to establish the book cost of plant
2 shown in the accounts of PPL Electric.

3 A. The accounts of PPL Electric are kept in accordance with the Uniform System
4 of Accounts prescribed by the PUC and the Federal Energy Regulatory
5 Commission ("FERC") for Electric Utilities and Licensees. By several orders at
6 Docket No. E.O.C. 34, the last dated December 30, 1947, the PUC determined
7 the original cost of PPL Electric's plant as of November 30, 1947. Since that
8 time, PPL Electric has recorded its plant transactions in accordance with the
9 Commission's required system of accounts. PPL Electric's books, therefore,
10 reflect the original cost of its plant at December 31, 2006.

11
12 Q. Are these accounts audited?

13 A. They are audited annually by an independent certified public accounting firm.
14 In addition, the FERC and PUC audit staffs conduct periodic audits.

15
16 Q. How do you determine that all property reflected in Account 101, Plant in
17 Service, as shown on Page 1 of Schedules B-1, is actually in service?

18 A. The Asset Management & Benefit Accounting Section of PPL Services
19 maintains Fixed Asset Records for PPL Electric, which set forth the detail of all
20 property in service. The dollar value total of the Continuing Property Records is
21 the same as the balance shown in Account 101 at December 31, 2006.

22 The Uniform System of Accounts requires that utilities record all
23 construction and retirements of electric plant by means of work orders or job
24 orders. In addition, the work order system must show the nature of each
)

1 addition to, or retirement from, electric plant, the total cost thereof, and the
2 plant account or accounts affected.

3 PPL Electric has maintained such a work order system since the
4 establishment of its Continuing Property Records system. Under this system,
5 an authorized capital work order is used for all work performed.

6 When any unit of property is taken out of service permanently, PPL
7 Electric personnel record the removal under a work order and transmit that
8 information to the Asset Management & Benefit Accounting Section, where the
9 necessary retirement accounting entry is made. Because many retirements
10 can occur in connection with capital improvement projects, the retirement work
11 is part of a construction authorization.

12 Costs of new construction are reported by work order number and Asset
13 Management accumulates, by work order, all costs associated with a specific
14 job, as well as the appropriate retirement unit and utility account. At the
15 completion of the job, Asset Management receives reports from construction
16 forces which show the date the project was placed in service and a complete
17 inventory of property constructed. Based on this information and the costs
18 accumulated under the work order, the property constructed is recorded in
19 appropriate detail on PPL Electric's Continuing Property Records. With this
20 system and its supporting detail, the costs comprising the total value of any
21 item recorded as Plant in Service can be fully supported and verified.

22
23 Q. Mr. Schadt, can you provide any background on how the future test year
24 financial statements were prepared?

) 1 A. The future test year financial statements and data are based on information
2 which PPL Electric used to prepare its 2007 Operating and Capital Budgets.
3 Generally, this unadjusted projected data has been utilized in responding to the
4 Commission's filing regulations.

5

6 Q. Would you please explain how the operating budget process is carried out by
7 PPL Electric?

8 A. Yes. In explaining the budget process, I will be referring to certain exhibits
9 (JRS 1 to JRS 4) which accompany my direct testimony. I was responsible for
10 preparing these exhibits. During the summer of each year, PPL Corporation's
11 Business Planning Group begins preparing a detailed operating budget for the
12 succeeding calendar year. Information used in compiling the operating budget
13 generally can be categorized into three major groups: (1) that which is of a
14 specialized nature (e.g., depreciation and amortization, financing, taxes) and is
15 generally supplied by a PPL Services' staff group having the expertise in
16 forecasting this information; (2) that which comes directly from PPL Electric
17 (e.g., employee levels and other operating costs, such as materials, contract
18 work, postage, rents); and (3) service group support costs, which are directly
19 assigned and/or allocated to PPL Corporation subsidiaries, including PPL
20 Electric.

21 In developing specialized information provided by PPL Services' staff
22 groups, each of the staff groups develops its specific phase of the budget
23 based on its specific experience and expertise. Specialized data from each
24 PPL Services' staff group is coordinated with other staff groups requiring this
)

1 information in order to complete this phase of the budgeting process. For
2 example, depreciation and interest expense information is needed for the tax
3 budget to be completed.

4 PPL Electric's Business Planning Group is responsible for coordinating
5 detailed budget information supplied directly to it from departments and
6 responsibility centers within PPL Electric. Budgeted sales and capital
7 expenditure information are significant pieces of information that PPL Electric's
8 departmental personnel supply to the Business Planning Group. Additionally,
9 each of PPL Electric's responsibility centers develops its own operation and
10 maintenance budget and forwards it to the PPL Electric's Business Planning
11 Group, which then summarizes the budgets in the Corporate Budget System
12 and presents them for review and approval by PPL Electric's executive
13 management.

14 After executive management approves the budget, the data is released
15 to my functional group, Financial Planning, where the data is incorporated into
16 the overall PPL Electric operating budget.

17 In developing service group support costs for PPL Electric, each Service
18 Group computes the level and expected cost of providing identifiable services
19 (direct costs) to PPL Electric based on discussions of required services
20 between the Support Group and PPL Electric personnel. The Service Groups
21 enter these direct support costs into the Corporate Budget System.
22 Additionally, the Service Groups identify and enter into the Corporate Budget
23 System budgeted costs that are not directly identifiable and chargeable to a
24 specific PPL Corporation subsidiary, but instead benefit various PPL

1 Corporation subsidiaries (indirect costs). Financial Planning has developed and
2 incorporated into the Corporate Budget System an allocation methodology, as
3 recommended by the Commission in its 2002 Focused Management and
4 Operations Audit, to distribute these indirect support costs to PPL Electric and
5 other PPL Corporation subsidiaries. The Corporate Budget System
6 accumulates and incorporates all the direct and indirect support costs into PPL
7 Electric's Operating Budget.

8 After the final pieces of the budget are received from all three groups
9 discussed above and approvals have been obtained, a tentative operating
10 budget is prepared for PPL Electric. The tentative budget is reviewed with
11 management with particular emphasis on key operational and financial
12 indicators. After this review, the final budget is prepared and reviewed with the
13 President and Board of Directors of PPL Electric. This budget is the key tool
14 used by PPL Electric and senior management to establish an operating plan for
15 the upcoming year and for measuring actual results against this plan.

16
17 Q. You stated that certain specialized data for the budget are provided by PPL
18 Services' staff groups. Could you tell us specifically what data are provided,
19 and who provides this data?

20 A. Yes. Exhibit JRS 1 lists the specialized information used in completing the
21 operating budget and identifies the specific PPL Services' staff groups
22 responsible for providing that data.
23

1 Q. You also stated that the remaining data for the operating budget comes from
2 responsibility centers. What are responsibility centers, and how many
3 responsibility centers does PPL Electric have?

4 A. The PPL Electric organization is broken down into five major business units.
5 Each business unit is subdivided into functional groups referred to as
6 responsibility centers. Each responsibility center has an assigned manager
7 who is responsible for all costs incurred by that responsibility center. Each
8 employee is assigned to a particular responsibility center. PPL Electric has 87
9 active responsibility centers. Exhibit JRS 2 contains a list of the responsibility
10 centers providing data for the 2007 Operating Budget.

11
12 Q. What type of data do they provide?

13 A. Each responsibility center provides a projection of its employee levels for the
14 year that becomes the basis for projecting total wages. The responsibility
15 centers also provide a budget of their other operating costs.

16
17 Q. Could you explain how the budget for wages is determined?

18 A. Yes. Early in the summer, Financial Planning notifies the affiliates of the "Date
19 of Estimate", which is the starting point date at which the Corporate Budget
20 System determines the number of employees, and their associated wages, in
21 each responsibility center. Any changes from the Date of Estimate starting
22 point, including new hires, decreases due to work force reductions or
23 retirements and changes in salary levels, must be identified. Employee levels
24 are reviewed and approved in conjunction with the overall budget review.

1 The Corporate Budget System automatically calculates a budget for
2 wages based on the starting level of employees and their actual earnings and
3 the employee changes input. The System then applies assumed management
4 and bargaining unit wage changes.

5 As business units budget for their employee levels, they generally
6 allocate their available manpower by functional activity. As part of this process,
7 they designate the applicable accounting to be charged- to capital or expense.
8 Wages identified as expense ultimately appear on Schedule B-2 of Exhibit
9 Future 1, PPL Electric's income statement, as an O&M expense.

10
11 Q. You mentioned the budget for other operating costs. What costs fall into this
12 category?

13 A. The Corporate Budget System requires budgeting by category of expenditure
14 referred to as budget items. Exhibit JRS 3 is a list of PPL Electric's various
15 budget items.

16
17 Q. How are these budget items estimated?

18 A. Non-payroll requirements, such as rents, materials and contractors, generally
19 are entered by budget item and functional activity, and in the month or months
20 the expenses are anticipated to occur. Budgets for payroll and non-payroll
21 budget items are summarized by department for review by the department vice-
22 presidents and president.

23

1 Q. As part of the future test year data in the present rate filing, budget
2 expenditures have been provided by account. Do the departments also budget
3 by account?

4 A. No. The budget is created by category of expenditure (budget items listed in
5 Exhibit JRS 3) and sometimes by functional activity. PPL Corporation believes
6 that it is more meaningful to budget and monitor expenditures by category of
7 expense (e.g., payroll, employee expenses, material and supplies) than by
8 FERC accounts. However, to satisfy the requirements for this rate filing, PPL
9 Electric has allocated expenditures into FERC accounts. This was
10 accomplished by first allocating operation and maintenance costs budgeted by
11 category of expenditures to FERC accounts where the budget classification
12 was specifically identifiable to those accounts. For those budget classifications
13 not identifiable to a specific FERC account, the total remaining budgeted
14 expenditures were allocated to FERC accounts based on the same relationship
15 to the total as the actual costs shown for the operation and maintenance
16 expenditures incurred in the historic test year ended December 31, 2006, which
17 are reported by both budget classification and FERC account.

18
19 Q. How was the operating budget used in this rate filing?

20 A. The operating budget was used as the basis for forecasting PPL Electric's
21 Operating Income for the test year ending December 31, 2007. See the
22 response to Question II-E-1 of Exhibit Regs., § 53.53, Part II, Primary
23 Statements of Rate Base and Operating Income ("Question II-E-1"). The
24 forecasted data shown in the response to Question II-E-1 was reformatted to
)

1 correspond to FERC account classifications and is shown in Schedule B-2 of
2 Exhibit Future 1 and throughout PPL Electric's responses to the Commission's
3 filing regulations.

4
5 Q. Are you aware of the requirement that a comparison of actual to budget data is
6 to be supplied quarterly when a utility utilizes a future test year?

7 A. Yes. In preparation for complying with this requirement, Exhibit JRS 4 has
8 been provided. This exhibit shows a breakdown of revenues and expenses for
9 electric operations for the future test year into calendar quarters beginning in
10 January of 2007 and ending December of 2007. PPL Electric will provide
11 quarterly comparisons of actual results to the budget as shown in Exhibit JRS 4
12 as the actual data becomes available.

13
14 Q. Does this conclude your direct testimony?

15 A. Yes, it does.

PPL Electric Utilities Corporation

Exhibit JRS 1

Docket No. R-00072155

**PPL ELECTRIC UTILITIES CORPORATION
SPECIALIZED INFORMATION USED IN COMPILING THE OPERATING BUDGET**

1. **DEPRECIATION AND AMORTIZATION** – Information is supplied by PPL Services Corporation's Asset Management and Analysis Section of the Financial Department.
2. **FINANCING** – Information is supplied by PPL Services Corporation's Finance and Treasury Section of the Financial Department.
3. **TAXES** – Information is supplied by PPL Services Corporation's Tax Section of the Financial Department.

PPL Electric Utilities Corporation

Exhibit JRS 2

Docket No. R-00072155

**PPL Electric Utilities Corporation
2007 Responsibility Centers**

<u>Business Line</u>	<u>Section</u>	<u>Responsibility</u>		<u>Responsibility Center Head</u>	
		<u>Center</u>	<u>Description</u>		
<i>Electric Utilities:</i>	Electric Utilities	21	Electric Utilities	Spence, William H	
<i>Asset Management:</i>	Administration	900	SR VP PPL Electric Utilities	DeCampi, David G	
	Business Planning	808	Business Planning	Dreisbach, Anthony F	
		807	Utility Business Services	Sepich, Christina R	
		813	Operations Planning	Correll, Lorraine L	
	Regulatory Strategy	924	Regulatory Strategy	Krall, Douglas A	
	Asset Financial Evaluation	919	Asset Financial Evaluation	Kramer, Joann J	
		909	Load Analysis	Woodruff, David R	
		925	Pricing & Contract Administration	Kasper, Oliver G	
	Interconnection Affairs	602	Interconnection Affairs	Laczo, Gabriel	
	Utilities Business Consulting	670	Utilities Business Consulting	Mezlo, Joseph J	
	<i>Transmission & Distribution</i>	Transmission & Distribution	880	Engineering & Design	Schleicher, David E
Asset Operations		603	Attachment & Telecom Business	Rotz, Alan C	
		661	T&D Operations	Grover, Robert D	
Asset Operations Evaluation		601	Asset Operations Evaluation	Smith, Gregory J	
		663	Distribution Asset Management	Smith, Gregory J	
		870	Asset Maintenance & Reliability	Weber Jr, Philip F	
Design Engineering		878	System Maint Engrg-Trans & Sub	Lally, Robert J	
		883	Substation Design	Bast, Gary J	
		881	T&D Design	Faisetty, John D	
		665	Relay Test	Diehl, Gerald	
		876	Standards	Zemyan, Nicholas A	
<i>Resource Management:</i>		Resource Management	526	Resource Management	Lapos, Mark J
			530	Field Resource Management West	Simon, Jon F
			540	Field Resource Management East	Biduck, James M
	Transportation Services	590	Transportation Services	Keller, Wesley C	
		591	Transportation East Region	Shemanski, Stanley J	
		595	Transportation West Region	Jones, Scott T	

**PPL Electric Utilities Corporation
2007 Responsibility Centers**

<u>Business Line</u>	<u>Section</u>	<u>Responsibility</u>		<u>Responsibility Center Head</u>	
		<u>Center</u>	<u>Description</u>		
Customer Services:	Customer Services	705	Customer Services	Geneczko, Robert M	
	Regulatory Prog & Business Svcs	701	Regulatory Programs & Bus Services	Dahl, Timothy R	
	Customer Contact Operations	707	Customer Contact Operations	Ling, David A	
		708	On Track Arrearage	Ling, David A	
	Automated Meter Reading	709	AMR Project	Bujnowski, Bernard J	
	Revenue Protection	736	Revenue Protection	Molchany, Bernard J	
Field Services:	Field Services	400	Vice President	Fogarty, John A	
	Field Services Administration	405	Field Services West	McGinley, Michael R	
	Field Services Administration	440	Field Services East	Kosydar, Alan M	
	Metering Support	733	Metering Support	Santarelli, Paul D	
	System Shops	872	Systems Shops	Santarelli, Paul D	
	Lancaster Region		410	Field Services Lancaster	Cook, Robert J
			411	Field Services Lancaster Design	Preziosi, Darryl P
			413	Field Services Lancaster T/D	Cook, Robert J
			414	Field Services Lancaster M/E	Cook, Robert J
			416	Field Services Lancaster East Design	Oswandel, Dennis G
			417	Field Services Lancaster East Metering	Kulikowski Jr, Bernard T
			418	Field Services Lancaster East T/D	Cook, Robert J
			419	Field Services Lancaster East M/E	Cook, Robert J
		Susquehanna Region		420	Field Services Susquehanna
			421	Field Services Susquehanna Design	Koslap, Robert M
			422	Field Services Susquehanna Metering	Booth, Thomas W
			423	Field Services Susquehanna T/D	Gaida, Francis J
			424	Field Services Susquehanna M/E	Gaida, Francis J
			436	Field Services Sunbury Design	Weston, Robert E
			438	Field Services Sunbury T/D	Gaida, Francis J
			439	Field Services Sunbury M/E	Gaida, Francis J

**PPL Electric Utilities Corporation
2007 Responsibility Centers**

<u>Business Line</u>	<u>Section</u>	<u>Responsibility</u>		<u>Responsibility Center Head</u>		
		<u>Center</u>	<u>Description</u>			
Harrisburg Region		430	Field Services Harrisburg	Howell, Timothy R		
		426	Field Services Harrisburg Design	Seip, Sheldon S		
		427	Field Services Harrisburg Metering	Melenchek, Lawrence S		
		428	Field Services Harrisburg T/D	Howell, Timothy R		
		429	Field Services Harrisburg M/E	Howell, Timothy R		
		431	Field Services West Shore Design	Judd, Sugirtha D		
		433	Field Services West Shore T/D	Howell, Timothy R		
		434	Field Services West Shore M/E	Howell, Timothy R		
		Lehigh Region		445	Field Services Lehigh	Reed, Denis E
				446	Field Services Lehigh Design	Moyer, Brian D
				447	Field Services Lehigh Metering	Bicking, Donald
				448	Field Services Lehigh T/D	Reed, Denis E
				449	Field Services Lehigh M/E	Reed, Denis E
				461	Field Services Bethlehem/Buxmont Design	Leonard, Bruce E
463	Field Services Bethlehem T/D			Reed, Denis E		
464	Field Services Bethlehem M/E			Reed, Denis E		
Central Region		455	Field Services Central	Gibbons, James M		
		456	Field Services Central/WB Design	Lehman, Dennis R		
		458	Field Services Central/WB T/D	Gibbons, James M		
		459	Field Services Central/WB M/E	Gibbons, James M		
		466	Field Services Central Design	Krushin, Joseph L		
		467	Field Services Central Metering	Smaniotto, Angelo		
		468	Field Services Central T/D	Gibbons, James M		
		469	Field Services Central M/E	Gibbons, James M		
		Northeast Region		470	Field Services Northeast	Compierchio, Joseph M
451	Field Services NE/Scranton Design			Baumgardner, T L		
452	Field Services NE/Scranton Metering			Laudig, Thomas G		
453	Field Services NE/Scranton T/D			Compierchio, Joseph M		
454	Field Services NE/Scranton M/E			Compierchio, Joseph M		
471	Field Services NE/Pocono Design			Sucheski, Michael A		
473	Field Services NE/Pocono T/D			Compierchio, Joseph M		
474	Field Services NE/Pocono M/E			Compierchio, Joseph M		

PPL Electric Utilities Corporation

Exhibit JRS 3

Docket No. R-00072155

PPL ELECTRIC UTILITIES CORPORATION
BUDGET ITEMS USED TO MONITOR EXPENDITURES

Wages and Employee Benefits
Employee Expenses
Vehicles & Equipment Use
Materials & Supplies
Printing & Office Supplies
Tree Trimming
Work by Outsiders
Services
Postage
Telephone & Leased Wires
Rents
Advertising
Uncollectible Accounts
Miscellaneous

PPL Electric Utilities Corporation

Exhibit JRS 4

Docket No. R-00072155

PPL ELECTRIC UTILITIES CORPORATION

Budget-2007
(Thousands of Dollars)

	<u>1st Q</u>	<u>2nd Q</u>	<u>3rd Q</u>	<u>4th Q</u>	<u>Total</u>
Operating Revenues					
Electric Operations	\$ 741,287	\$ 656,822	\$ 696,213	\$ 735,599	\$ 2,829,921
Wholesale & Energy Trading	750	600	300	300	1,950
Intercompany Sales	37,115	36,725	34,324	37,570	145,734
Total Operating Revenues	779,152	694,147	730,837	773,469	2,977,605
Operating Expenses					
Energy Purchases - External	52,349	51,022	49,306	52,498	205,175
Energy Purchases - Internal	465,917	408,733	435,156	453,412	1,763,218
Other Operating Expenses - Direct	70,437	74,221	75,328	73,687	293,673
Other Operating Expenses - Intercompany	21,235	19,548	19,433	20,347	80,563
Total O&M Expense	91,672	93,769	94,761	94,034	374,236
Amort. of Deferred Debits/Credits	412	348	381	360	1,501
Depreciation	32,299	32,753	33,244	33,766	132,062
Taxes other than income	52,143	45,379	48,614	46,712	192,848
Total Operating Expenses	694,792	632,004	661,462	680,782	2,669,040
Income from Operations	84,360	62,143	69,375	92,687	308,565
Other Income and (Deductions)	3,120	1,170	2,246	1,297	7,833
Interest expense					
Long Term Debt	20,204	20,212	21,029	19,669	81,114
Short Term Debt & Other	693	746	804	835	3,078
Intercompany Interest	3,938	3,866	3,843	3,848	15,495
AFUDC & Capitalized Interest	(894)	(881)	(857)	(745)	(3,377)
Total Interest Expense	23,941	23,943	24,819	23,607	96,310
Income before Income Taxes	63,539	39,370	46,802	70,377	220,088
Income Taxes					
Provision-Federal	17,651	10,689	13,293	21,175	62,808
-State	5,663	3,508	4,171	6,274	19,616
Deferred Income Taxes	1,453	1,378	1,226	1,089	5,146
Total Income Taxes	24,767	15,575	18,690	28,538	87,570
Minority Interest					
Income Before Extraordinary Item	38,772	23,795	28,112	41,839	132,518
Extraordinary Item, net of income taxes					
Net Income	38,772	23,795	28,112	41,839	132,518
Preferred Stock Dividend Requirements	4,518	4,518	4,518	4,516	18,070
Earnings Available for Common Stock	\$ 34,254	\$ 19,277	\$ 23,594	\$ 37,323	\$ 114,448

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Docket No. R-00072155

PPL Electric Utilities Corporation

Statement No. 3

Direct Testimony of Denise A. Cunningham

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PPL
SECRETARY'S BUREAU

1 A. I have worked for PPL or its affiliates for 28 years. I began my employment as
2 an Auditor in the Internal Audit Department performing various financial and
3 operational audits. I remained there for six years. I then transferred to the
4 Financial Planning Department as a Senior Accountant. This department was
5 responsible for the development of the corporate operating budget. Initially, I
6 was responsible for the preparation of corporate payroll, and operation and
7 maintenance expense (O&M) budgets. While there, I was promoted to
8 Accounting Analyst and assumed responsibility for the development of the
9 other line items of the corporate operating budget, including sales, the Energy
10 Cost Rate, unbilled revenues, etc. I also was involved in the corporate long-
11 range planning function. I worked in Financial Planning for almost 10 years. In
12 November 1994, I was promoted to Supervisor - Financial Accounting
13 responsible for the maintenance and closing of the corporate books and
14 records, as well as the completion and filing of the Annual Report to
15 Shareowners, Forms 10-K and 10-Q for the Securities and Exchange
16 Commission and the FERC Form 1. Through my experience in Financial
17 Planning and Financial Accounting, I developed a thorough knowledge of
18 accounting and reporting concepts applicable to the regulated electricity
19 industry. In September 1996, I transferred to the position of Project Manager -
20 Business Management Information System responsible for the implementation
21 of a new general ledger and reporting system that became operational in
22 November 1998. In 2000, I took the position of Manager - Competitive
23 Marketing and Derivative Accounting responsible for implementation of
24 Statement of Financial Accounting Standard No. 133, Accounting for Derivative
)

1 Instruments and Hedging Activities ("SFAS 133"), and the accounting and
2 settlement activities of the energy marketing group. In mid-2002, I became a
3 Special Projects Leader and have been involved in many diverse projects which
4 provide the opportunity to draw on my previous experience. I coordinated the
5 Financial Department's activities in the preparation of PPL Electric's 2004
6 distribution base rate case.

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

9 A. My testimony will describe and support PPL Electric's calculation of certain
10 ratemaking adjustments to retail rate base, operating revenues and operating
11 expenses for the historic and future test years.

12
13 Q. Ms. Cunningham, are you sponsoring any exhibits in this proceeding?

14 A. Yes, I am sponsoring portions of Exhibit Regs., Part I-General Information, Part
15 II-Primary Statements of Rate Base and Operating Income, Part V-Plant and
16 Depreciation Supporting Data, Including Related Depreciation Study Report
17 and Part VI-Unadjusted Comparative Balance Sheets and Operating Income
18 Statements.

19
20 Exhibits Historic 1 and Future 1

21 Q. Are you sponsoring any schedules in Exhibits Historic 1 and Future 1?

22 A. Yes. I am sponsoring the following: Schedules C-1, C-2, C-5, D-1, D-2, D-3,
23 D-4, D-5, D-6, D-7, D-9, D-10, and D-11 of Exhibits Historic 1 and Future 1.

1 Q. Ms. Cunningham, would you explain Schedules C-2, Electric Plant in Service --
2 Original Cost in Exhibits Historic 1 and Future 1?

3 A Schedule C-2 of Exhibit Historic 1 represents electric plant in service and the
4 reserve for depreciation at December 31, 2006, which were taken from PPL
5 Electric's fixed asset records, as explained in the testimony of Mr. Schadt.
6 Schedule C-2 of Exhibit Future 1 represents the projected electric plant in
7 service and reserve for depreciation at December 31, 2007. The projected
8 electric plant in service at December 31, 2007 is determined by adjusting the
9 December 31, 2006 balance for projects expected to be placed in service and
10 projected retirements during 2007. The reserve for depreciation at
11 December 31, 2007 was determined by adjusting the December 31, 2006
12 balance for the 2007 provision for depreciation and amortization, and projected
13 retirements.

14
15 Q. Ms. Cunningham, would you explain Schedules C-5, "Plant Materials and
16 Operating Supplies"?

17 A. Schedules C-5 set forth the investment in the materials and supplies stored at
18 service area storerooms to supply line crews. Schedule C-5 in Exhibit Historic
19 1 shows the average dollars invested by PPL Electric in materials and operating
20 supplies for the thirteen months ended December 31, 2006, and the stores
21 expense applicable to this inventory balance. Projected monthly balances of
22 materials and operating supplies, and the applicable stores expense, for the 13
23 months ending December 31, 2007 are shown on Schedule C-5 of Exhibit
24 Future 1.

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Q. Please explain the adjustment on Schedules D-5 "Adjustment to Wages and Benefits".

A. The number of employees that PPL Electric employs can fluctuate throughout any given year. This, in turn, impacts the wages and benefits incurred or projected for that period. Schedules D-5 annualize transmission and distribution wages, taxes and benefits based on the number of transmission and distribution (T&D) related employees to be employed at the end of each test year and the corresponding average monthly T&D-related wages to expense per employee.

Q. Ms. Cunningham, please explain Schedules D-9 "Adjustment for Deferred Costs for 2005 Ice and Snow Storms".

A. In January 2005, a series of severe ice storms affected PPL Electric's service territory. The total cost to restore service to customers, excluding capitalized costs and regular payroll expenses, was approximately \$16 million. On February 11, 2005, PPL Electric filed a petition with the PUC for authority to defer and amortize for regulatory accounting and reporting purposes these storm costs. On August 26, 2005, the PUC issued an order granting PPL Electric's petition subject to certain conditions, including: (1) the PUC's authorization of deferred accounting is not an assurance of future rate recovery of the storm costs, (2) PPL Electric must request recovery of the deferred storm costs in its next distribution base rate case, and (3) PPL Electric must

1 begin immediately to expense the deferred storm costs on a 10-year
2 amortization schedule for regulatory accounting and reporting purposes.

3 As a result of the PUC Order and in accordance with SFAS 71,
4 "Accounting for the Effects of Certain Types of Regulation", in the third quarter
5 of 2005, PPL Electric deferred approximately \$12.3 million of these previously
6 expensed storm expenses. The deferral was based on the projected timing of
7 the Company's next distribution base rate case. The difference between the
8 \$16 million of expense incurred and the \$12.3 million deferred approximates
9 the amortization expense from August 2005 through December 2007.

10 The annual adjustment of \$1,611,000 reflected on Schedules D-9 of
11 Exhibit Historic 1 and Exhibit Future 1 reflects the annual amortization that
12 would have been incurred in each of these years had not the Company taken
13 the immediate write-off of those amounts in 2005.

14
15 Q. Please explain Schedules D-10 "Adjustment for Storm Insurance".

16 A. As Mr. Krall explains in his testimony, PPL Electric purchased storm insurance
17 for its transmission and distribution system in June 2006. The adjustments
18 reflected on Schedule D-10 of Exhibit Historic 1 annualizes transmission and
19 distribution expense to reflect a full year of storm insurance expense. Because
20 PPL Electric already included the insurance premium in its 2007 budget, there
21 is no adjustment proposed on Schedule D-10 of Exhibit Future 1. The
22 adjustment shown on Schedule D-10 of Exhibit Historic 1 represents the
23 difference between the full annual premium and the actual portion of that
24 premium recorded by PPL Electric in 2006.

)¹

2 Q. Does this conclude your direct testimony?

3 A. Yes, it does.

)

)

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Docket No. R-00072155

PPL Electric Utilities Corporation

Statement No. 4

Direct Testimony of David R. Woodruff

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1 **Direct Testimony of David R. Woodruff**

2 Q. Please state your full name and business address.

3 A. David R. Woodruff, Two North Ninth Street, Allentown, Pennsylvania 18101.

4
5 Q. By whom are you employed and in what capacity?

6 A. I am employed by PPL Electric Utilities Corporation ("PPL Electric" or the
7 "Company") in the Asset Management Department as Manager Load Analysis.

8
9 Q. What are your duties as Manager-Load Analysis?

10 A. I am responsible for the overall direction of the functions of the Load Analysis
11 section within the Asset Financial Evaluation section of the Asset Management
12 Department. In this capacity, I direct the forecasting of customer energy sales,
13 revenues, and peak demands. In addition, I oversee the collection of load
14 research data and the development of historical and forecasted customer and
15 rate class hourly demands. This includes the forecasting of hourly demands for
16 the PPL System within PJM, and the Provider of Last Resort ("POLR") function,
17 which are used for scheduling PPL Electric's daily load requirements.

18
19 Q. What is your education background?

20 A. I graduated from The Pennsylvania State University in 1980 with a Bachelor of
21 Science in Civil Engineering; and from Drexel University in 1998 with a Master of
22 Science in Engineering Management. I am a licensed Professional Engineer in
23 the State of Pennsylvania.

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Q. Please describe your professional experience.

A. I was employed by PPL Electric's predecessor, Pennsylvania Power & Light Company, in 1980 as an Engineer in the Power Plant Engineering Department. My responsibilities were to design modifications to the Company's fossil and hydro power plants. In 1988, I assumed the position of Project Engineer in the Fuel Planning Section of the Fossil Fuels Department. My responsibilities included fuel price forecasting and analytical support for Fuel Operations. In 1995, I assumed the position of Fuel Procurement Agent within the Fuel Procurement Section of the Fossil Fuels Department. My responsibilities included the procurement of fuel (anthracite coal, bituminous coal, petroleum coke) for the fossil power plants. In 1996, I assumed the position of Senior Consultant in the IS Consulting Section of the Information Services Department. My responsibilities included the negotiation of computer hardware contracts, and procurement of computer equipment. In 1998, I was named acting Supervisor within the Consulting Section. In 1998, I assumed the position of Senior Forecaster in the Load Analysis Section. My responsibilities included the development and implementation of new hourly forecasting models to meet the POLR requirements of PPL Electric, the implementation of new monthly sales forecasting models, and forecasting of Alternative Supplier loads. In 2001, I assumed my current position.

22

23 Q. Mr. Woodruff, what is the purpose of your testimony?

1 A. The purpose of my testimony is as follows:

- 2 • To explain the development of the Company's forecast of customer sales,
3 revenues, and peak demands;
- 4 • To sponsor and explain the annualization of sales and base rate revenues as
5 summarized on Schedules D-3 of Exhibit Historic 1 and Exhibit Future 1; and
- 6 • To explain the derivation of customer load data used to develop the demand
7 allocators employed by Mr. Kleha in his cost allocation studies.

8
9 Q. Have you prepared any exhibits to accompany your direct testimony?

10 A. Yes. I am sponsoring Exhibit DRW 1 which consists of 6 pages. The first page
11 sets forth the Company's actual annual sales by customer class for the historical
12 period 2005 and 2006, and the forecast of annual sales for the 2007 future test
13 year. Page 2 of Exhibit DRW 1 provides aggregate peak load data for the same
14 periods. Pages 3 and 4 of Exhibit DRW 1 show the 2006 Annualization by rate
15 schedule of distribution and transmission revenues, and pages 5 and 6 of Exhibit
16 DRW 1 show the 2007 Annualization details for the future test year.

17
18 Q. Please describe the development of the sales forecast set forth in Exhibit
19 DRW 1.

20 A. The sales forecast is developed for the Residential, Commercial, Industrial and
21 Other customer classes. The Residential customer class is segmented into
22 Electrically Heated Home (EHH) and General Residential Service (GRS); the
23 Industrial customer class is segmented by industry. These customer class

1 forecasts were developed from models using regression analyses of historical
2 sales data, economic data, and weather data. Historical and forecasted
3 economic data for the Commonwealth of Pennsylvania are obtained from
4 Economy.com. The weather data are obtained from the following airports:
5 Lehigh Valley International, Harrisburg (Middletown), Wilkes-Barre/Scranton
6 (Avoca), and Williamsport. Because PPL Electric does not bill customers on a
7 calendar-month basis (bills are rendered based on meter reads throughout the
8 month), billing-month heating degree-days (HDDs) and cooling degree-days
9 (CDDs) are calculated for each billing-month, based on the meter read schedule
10 for each billing-month. Forecasted weather is determined by calculating normal
11 billing-month weather on a HDD and CDD basis for the past 20 years. The
12 models use these inputs to generate a monthly sales forecast for each customer
13 class.

14
15 Q. How was the sales forecast set forth in Exhibit DRW 1 used in this rate filing?

16 A. The sales forecast was used to develop projected future test year sales and
17 revenues.

18
19 Q. How did you develop the peak load forecast set forth on page 2 of Exhibit
20 DRW 1?

21 A. The peak load forecast shown on page 2 of Exhibit DRW 1 is a function of
22 historical weather-normalized peaks. Each year, PPL Electric determines its
23 weather-normalized summer and winter peaks. These peaks are based on a

1 regression of actual daily unrestricted peaks against the corresponding weather
2 conditions for the respective season. The point on the regression line
3 corresponding to the 20-year normal weather is the weather-normalized peak for
4 that season. For the summer season, a 20-year rolling average of the
5 Temperature-Humidity Index (THI) is used to determine normal weather,
6 consistent with the weather normalization process approved by PJM in *PJM*
7 *Manual 19: Load Data Systems*. For the winter season, a Winter Weather
8 Parameter is used, comprised of temperature and wind, consistent with *PJM*
9 *Manual 19*.

10 The forecasted peaks are developed for both the summer and winter
11 season using two separate regression models. These models estimate the
12 relationship between the historical seasonal peaks to annual energy sales and
13 various economic drivers. This analysis uses 20 years of history, which results in
14 the forecasted seasonal peaks for the subsequent years. The other months of
15 the year are then estimated, using the historical percentage of the seasonal peak
16 for the appropriate month.

17
18 Q. Please describe the development of the revenue forecast used in Schedule D-3
19 of Exhibit Future 1.

20 A. The first step in this process is converting the forecast of sales by customer class
21 to a forecast of sales by rate schedule. This conversion is accomplished by
22 applying historic billing factors which allocate the customer class sales to the

1 various rate schedules. These factors are annual factors based on revenue-
2 month billing data from the most recent revenue-year. The revenue forecast is
3 developed by applying the forecast of sales by rate to the appropriate rate
4 schedule pricing as detailed in PPL Electric's Tariff—Electric PA P.U.C. No. 201.

5
6 Q. Schedules D-3 of Exhibit Historic 1 and Future 1 reflect the annualization of sales
7 and base rate revenues for the historic and future test years. Please explain how
8 those adjustments were developed.

9 A. The annualization adjustment of sales and base rate revenues for the historic
10 year ended December 31, 2006 has two components. One accounts for
11 changes in the number of customers over the test year, and the second accounts
12 for changes in customer usage. The adjustment for the change in the number of
13 customers as reported for the year by rate class was determined as follows. The
14 change in the number of customers from December 31, 2005 to December 31,
15 2006 was computed for each rate class. One-half of that change was assigned
16 on a class-by-class basis and then multiplied by the average annual KWH usage
17 per customer to obtain the sales adjustment associated with new customers
18 entering the rate class. The average unit base rate for each rate class was
19 applied to the resulting KWH sales levels to obtain the base rate revenue
20 adjustments for all rate components.

21 The second adjustment recognizes changing KWH usage levels by
22 existing customers and was determined as follows. The average change over
23 the past three years in average annual usage for each class was computed.

1 One-half of the change in average use was multiplied by the year-end number of
2 customers for each rate class to obtain the KWH sales adjustment. The
3 incremental base rate for each rate class was applied to this sales adjustment to
4 obtain the base rate revenue adjustment. Details of the 2006 Annualization are
5 shown on pages 3 and 4 of Exhibit DRW 1. The annualization of future test year
6 sales and revenues consisted of similar adjustments for changes in the numbers
7 of customers and customer usage. The details of the future test year
8 annualization are shown on pages 5 and 6 of Exhibit DRW 1.

9
10 Q. Please explain the source of the customer load data used to develop the
11 customer class demand allocators employed in the Company's cost allocation
12 studies.

13 A. PPL Electric continuously collects load data in 15-minute intervals through
14 recording demand meters on sample locations for customers in the residential,
15 GS-1, GS-3, LP-4, and GH classes, and for all customers on Rate Schedules LP-
16 5, LP-6, IS-P, IS-T, and all FERC jurisdictional customers. For the rate classes
17 represented by samples of load data, the sample data are extrapolated to
18 determine hourly demands for the entire rate class. These rate class hourly
19 demands are used to determine the annual rate class maximum demands. The
20 hourly demands are used to determine the contribution of each rate class to each
21 of the twelve (12) monthly peaks during the historic test year. These are
22 averaged to calculate the coincident peak demands for that class.

1 For the future test year, the rate class average demand coincident to the
2 monthly system peak demand and the annual rate class maximum demands
3 were projected by analyzing total rate class demand data from 1996 through
4 2006. The respective rate class historical values were analyzed using a Box-
5 Jenkins modeling technique (also known as ARIMA modeling).
6

7 Q. Does this conclude your testimony?

8 A. Yes it does.
9

PPL ELECTRIC UTILITIES CORPORATION

Exhibit DRW 1

Annual Retail Sales by Customer Class
Annual Net Energy, Seasonal Peaks, and Load Factor
2006 Annualization of Distribution Revenues
2006 Annualization of Transmission Revenues
2007 Annualization of Distribution Revenues
2007 Annualization of Transmission Revenues

Witness: David R. Woodruff

PPL Electric Utilities Corporation
Annual Retail Sales by Customer Class

Excludes Company Use

Sales (millions of kwh)	2005	2006	2007
Residential Electric Heat (EHH)	6,551.0	6,163.2	6,468.6
Residential General Service (GRS)	7,667.4	7,551.1	7,711.1
Residential	14,218.4	13,714.2	14,179.8
Commercial	13,196.2	13,173.6	13,222.5
Industrial	9,783.5	9,637.8	9,964.6
Other	166.9	157.2	169.2
Total	37,365.0	36,682.9	37,536.0

Year-To-Year Change (millions of kwh)		
Residential Electric Heat (EHH)	(387.8)	305.4
Residential General Service (GRS)	(116.4)	160.1
Residential	(504.2)	465.5
Commercial	(22.6)	48.8
Industrial	(145.7)	326.8
Other	(9.7)	12.0
Total	(682.2)	853.1

Year-To-Year Change (%)		
Residential Electric Heat (EHH)	-5.92%	4.96%
Residential General Service (GRS)	-1.52%	2.12%
Residential	-3.55%	3.39%
Commercial	-0.17%	0.37%
Industrial	-1.49%	3.39%
Other	-5.79%	7.64%
Total	-1.83%	2.33%

Note: Sales values for 2005 and 2006 are actual. Sales for 2007 are forecast.

PPL Electric Utilities Corporation
Retail Load¹
Annual Net Energy, Seasonal Peaks, and Load Factor

<u>Year</u>	<u>Net Energy for Load² (GWH)</u>	<u>Peaks</u>		<u>Load Factor (%)</u>
		<u>Summer (MW)</u>	<u>Winter (MW)</u>	
2007	40,631	6,909	7,002	66%

1. Retail Load excludes wholesale deliveries to FERC jurisdictional customers.
2. Reflects load at the generation level, including all losses.

**PPL Electric Utilities Corporation
2006 Annualization**

Distribution Only

(1)	(2)	(3)	(4) (2) / (3)	(5)	(6) (4) * (5)	(7)	(8)	(9) (7) * (8)	(10) (5) + (8)	(11) (6) + (9)
Rate	Revenue \$	Sales kWh	Average Price \$/kWh	Sales Adjustment - Customer Usage kWh	Customer Usage Revenue \$	Incremental Price \$/kWh	Sales Adjustment - Customer Growth kWh	Customer Growth Revenue \$	Total Sales Adjustment kWh	Total Revenue Adjustment \$
RS	\$ 376,941,156	13,339,389,613	\$ 0.0283	(5,354,910)	\$ (151,318)	\$ 0.0188	64,087,476	\$ 1,202,144	58,732,566	\$ 1,050,826
RTS	\$ 3,743,951	363,491,518	\$ 0.0103	(7,872,507)	\$ (81,087)	\$ 0.0009	(1,368,862)	\$ (1,216)	(9,241,369)	\$ (82,303)
RTD	\$ 134,549	4,755,628	\$ 0.0283	(76,089)	\$ (2,153)	\$ 0.0175	(26,919)	\$ (472)	(103,008)	\$ (2,625)
GS-1	\$ 75,555,853	1,934,890,488	\$ 0.0390	(11,249,672)	\$ (439,290)	\$ 0.0222	4,967,789	\$ 110,182	(6,281,883)	\$ (329,109)
GS-3	\$ 115,379,588	8,600,812,525	\$ 0.0134	(2,249,756)	\$ (30,180)	\$ 0.0072	9,633,527	\$ 69,309	7,383,771	\$ 39,128
LP-4	\$ 31,755,199	5,849,944,666	\$ 0.0054	6,058,765	\$ 32,889	\$ 0.0041	72,114,702	\$ 296,834	78,173,468	\$ 329,722
ISP	\$ 1,824,688	319,477,861	\$ 0.0057	(2,525,683)	\$ (14,425)	\$ 0.0073	(5,704,962)	\$ (41,792)	(8,230,645)	\$ (56,217)
LP-5	\$ 1,972,435	3,053,220,058	\$ 0.0006	(68,310,685)	\$ (44,130)	\$ 0.0004	-	\$ -	(68,310,685)	\$ (44,130)
IST	\$ 1,335,424	1,880,611,188	\$ 0.0007	22,827,062	\$ 16,210	\$ 0.0018	-	\$ -	22,827,062	\$ 16,210
L5S	\$ 49,133	4,639,000	\$ 0.0106	(221,548)	\$ (2,346)	\$ 0.0001	-	\$ -	(221,548)	\$ (2,346)
LP-6	\$ 177,316	427,174,000	\$ 0.0004	(2,063,333)	\$ (856)	\$ 0.0003	53,396,750	\$ 17,243	51,333,417	\$ 16,387
LPEP	\$ 463,457	62,010,000	\$ 0.0075	348,017	\$ 2,601	\$ 0.0015	-	\$ -	348,017	\$ 2,601
ISM	\$ 575,878	438,159,287	\$ 0.0013	37,171,450	\$ 48,855	\$ (0.0000)	-	\$ -	37,171,450	\$ 48,855
IS-1	\$ 30,600	1,664,560	\$ 0.0184	61,799	\$ 1,136	\$ -	-	\$ -	61,799	\$ 1,136
BL	\$ 269,184	6,164,221	\$ 0.0437	(105,860)	\$ (4,623)	\$ 0.0430	1,052,428	\$ 45,219	946,568	\$ 40,597
SA	\$ 3,472,345	23,106,960	\$ 0.1503	-	\$ -	\$ 0.1503	-	\$ -	-	\$ -
SM	\$ 711,868	4,562,798	\$ 0.1560	(17,790)	\$ (2,776)	\$ 0.1560	(114,070)	\$ (17,797)	(131,860)	\$ (20,572)
SHS	\$ 11,769,365	49,912,208	\$ 0.2358	(2,992,205)	\$ (705,566)	\$ 0.2358	845,253	\$ 199,312	(2,146,952)	\$ (506,254)
SE	\$ 1,567,703	34,721,839	\$ 0.0452	2,088,910	\$ 94,315	\$ 0.0452	763,117	\$ 34,455	2,852,027	\$ 128,770
TS	\$ 22,725	319,584	\$ 0.0711	(10,084)	\$ (717)	\$ 0.0711	-	\$ -	(10,084)	\$ (717)
SI-1	\$ 15,456	82,588	\$ 0.1871	(1,867)	\$ (349)	\$ 0.1871	-	\$ -	(1,867)	\$ (349)
GH-1	\$ 5,713,453	293,404,603	\$ 0.0195	9,923,746	\$ 193,245	\$ 0.0163	(2,968,417)	\$ (48,286)	6,955,329	\$ 144,959
GH-2	\$ 1,338,154	62,283,729	\$ 0.0215	(1,273,752)	\$ (27,366)	\$ 0.0133	(423,263)	\$ (5,625)	(1,697,014)	\$ (32,991)
Total	\$ 634,819,480	36,754,798,922		(25,845,992)	\$ (1,117,933)		196,254,550	\$ 1,859,510	170,408,558	\$ 741,577

Note: Excludes Company Use

**PPL Electric Utilities Corporation
2006 Annualization**

Transmission Only

(1)	(2)	(3)	(4) (2) / (3)	(5)	(6) (4) * (5)	(7)	(8)	(9) (7) * (8)	(10) (5) + (8)	(11) (6) + (9)
Rate	Revenue \$	Sales kWh	Average Price \$/kWh	Sales Adjustment - Customer Usage kWh	Customer Usage Revenue \$	Incremental Price \$/kWh	Sales Adjustment - Customer Growth kWh	Customer Growth Revenue \$	Total Sales Adjustment kWh	Total Revenue Adjustment \$
RS	\$ 80,313,980	13,339,389,613	\$ 0.0060	(5,354,910)	\$ (32,241)	\$ 0.0057	64,087,476	\$ 368,060	58,732,566	\$ 335,819
RTS	\$ 2,186,776	363,491,518	\$ 0.0060	(7,872,507)	\$ (47,361)	\$ 0.0058	(1,368,862)	\$ (7,992)	(9,241,369)	\$ (55,353)
RTD	\$ 28,620	4,755,628	\$ 0.0060	(76,089)	\$ (458)	\$ 0.0058	(26,919)	\$ (156)	(103,008)	\$ (614)
GS-1	\$ 11,559,296	1,934,890,488	\$ 0.0060	(11,249,672)	\$ (67,207)	\$ 0.0057	4,967,789	\$ 28,196	(6,281,883)	\$ (39,011)
GS-3	\$ 51,232,323	8,600,812,525	\$ 0.0060	(2,249,756)	\$ (13,401)	\$ 0.0059	9,633,527	\$ 57,314	7,383,771	\$ 43,913
LP-4	\$ 35,013,869	5,849,944,666	\$ 0.0060	6,058,765	\$ 36,264	\$ 0.0063	72,114,702	\$ 455,850	78,173,468	\$ 492,114
ISP	\$ 1,942,369	319,477,861	\$ 0.0061	(2,525,683)	\$ (15,356)	\$ 0.0064	(5,704,962)	\$ (36,353)	(8,230,645)	\$ (51,708)
LP-5	\$ 18,384,691	3,053,220,058	\$ 0.0060	(68,310,685)	\$ (411,327)	\$ 0.0059	-	\$ -	(68,310,685)	\$ (411,327)
IST	\$ 11,508,407	1,880,611,188	\$ 0.0061	22,827,062	\$ 139,690	\$ 0.0060	-	\$ -	22,827,062	\$ 139,690
L5S	\$ 27,983	4,639,000	\$ 0.0060	(221,548)	\$ (1,336)	\$ 0.0060	-	\$ -	(221,548)	\$ (1,336)
LP-6	\$ 2,583,908	427,174,000	\$ 0.0060	(2,063,333)	\$ (12,481)	\$ 0.0061	53,396,750	\$ 323,765	51,333,417	\$ 311,284
LPEP	\$ 374,634	62,010,000	\$ 0.0060	348,017	\$ 2,103	\$ 1.1914	-	\$ -	348,017	\$ 2,103
ISM	\$ 1,673,027	438,159,287	\$ 0.0038	37,171,450	\$ 141,932	(39.8788)	-	\$ -	37,171,450	\$ 141,932
IS-1	\$ 10,005	1,664,560	\$ 0.0060	61,799	\$ 371	\$ 0.0059	-	\$ -	61,799	\$ 371
BL	\$ 37,573	6,164,221	\$ 0.0061	(105,860)	\$ (645)	\$ 0.1414	1,052,428	\$ 148,802	946,568	\$ 148,157
SA	\$ 139,828	23,106,960	\$ 0.0061	-	\$ -	\$ 0.0061	-	\$ -	-	\$ -
SM	\$ 27,048	4,562,798	\$ 0.0059	(17,790)	\$ (105)	\$ 0.0059	(114,070)	\$ (676)	(131,860)	\$ (782)
SHS	\$ 297,410	49,912,208	\$ 0.0060	(2,992,205)	\$ (17,830)	\$ 0.0060	845,253	\$ 5,037	(2,146,952)	\$ (12,793)
SE	\$ 208,831	34,721,839	\$ 0.0060	2,088,910	\$ 12,564	\$ 0.0060	763,117	\$ 4,590	2,852,027	\$ 17,153
TS	\$ 1,934	319,584	\$ 0.0061	(10,084)	\$ (61)	\$ 0.0061	-	\$ -	(10,084)	\$ (61)
SI-1	\$ 521	82,588	\$ 0.0063	(1,867)	\$ (12)	\$ 0.0063	-	\$ -	(1,867)	\$ (12)
GH-1	\$ 1,637,354	293,404,603	\$ 0.0056	9,923,746	\$ 55,380	\$ 0.0054	(2,968,417)	\$ (16,151)	6,955,329	\$ 39,229
GH-2	\$ 372,221	62,283,729	\$ 0.0060	(1,273,752)	\$ (7,612)	\$ 0.0059	(423,263)	\$ (2,481)	(1,697,014)	\$ (10,093)
Total	\$ 219,562,605	36,754,798,922		(25,845,992)	\$ (239,130)		196,254,550	\$ 1,327,805	170,408,558	\$ 1,088,675

Note: Excludes Company Use

**PPL Electric Utilities Corporation
2007 Annualization**

Distribution Only

(1)	(2)	(3)	(4) (2) / (3)	(5)	(6) (4) * (5)	(7)	(8)	(9) (7) * (8)	(10) (5) + (8)	(11) (6) + (9)
Rate	Revenue \$	Sales kWh	Average Price \$/kWh	Sales Adjustment - Customer Usage kWh	Customer Usage Revenue \$	Incremental Price \$/kWh	Sales Adjustment - Customer Growth kWh	Customer Growth Revenue \$	Total Sales Adjustment kWh	Total Revenue Adjustment \$
RS	\$ 389,428,996	13,782,978,000	\$ 0.0283	67,235,347	\$ 1,899,691	\$ 0.0175	26,060,986	\$ 455,277	93,296,333	\$ 2,354,967
RTS	\$ 3,704,805	385,602,000	\$ 0.0096	(1,618,994)	\$ (15,555)	\$ (0.0004)	6,450,338	\$ (2,534)	4,831,344	\$ (18,090)
RTD	\$ 137,526	5,013,000	\$ 0.0274	(6,614)	\$ (181)	\$ 0.0162	129,967	\$ 2,102	123,352	\$ 1,921
GS-1	\$ 75,277,490	1,968,887,000	\$ 0.0382	(1,815,655)	\$ (69,419)	\$ 0.0105	(1,278,340)	\$ (13,382)	(3,093,995)	\$ (82,801)
GS-3	\$ 116,047,630	8,734,385,000	\$ 0.0133	18,346,183	\$ 243,753	\$ 0.0048	29,231,543	\$ 141,511	47,577,725	\$ 385,264
LP-4	\$ 30,559,230	5,868,659,000	\$ 0.0052	11,068,426	\$ 57,635	\$ 0.0044	(81,347,749)	\$ (356,055)	(70,279,322)	\$ (298,419)
ISP	\$ 1,817,693	343,821,000	\$ 0.0053	(927,449)	\$ (4,903)	\$ 0.0044	17,783,845	\$ 78,494	16,856,396	\$ 73,591
LP-5	\$ 1,719,341	3,194,563,000	\$ 0.0005	(39,572,701)	\$ (21,298)	\$ 0.0007	(45,206,080)	\$ (30,086)	(84,778,781)	\$ (51,384)
IST	\$ 739,078	1,980,277,000	\$ 0.0004	33,374,210	\$ 12,456	\$ (0.0002)	-	\$ -	33,374,210	\$ 12,456
L5S	\$ 45,370	6,581,000	\$ 0.0069	80,743	\$ 557	\$ 0.0071	(1,974,300)	\$ (13,983)	(1,893,557)	\$ (13,427)
LP-6	\$ 139,013	363,650,000	\$ 0.0004	(32,428,067)	\$ (12,396)	\$ 0.0004	72,730,000	\$ 28,047	40,301,933	\$ 15,651
LPEP	\$ 331,971	72,000,000	\$ 0.0046	620,000	\$ 2,859	\$ -	-	\$ -	620,000	\$ 2,859
ISM	\$ 537,964	426,000,000	\$ 0.0013	28,543,136	\$ 36,045	\$ -	-	\$ -	28,543,136	\$ 36,045
IS-1	\$ 31,633	1,447,000	\$ 0.0219	26,327	\$ 576	\$ 0.0219	-	\$ -	26,327	\$ 576
BL	\$ 281,756	6,468,000	\$ 0.0436	(208,210)	\$ (9,070)	\$ -	(1,054,565)	\$ -	(1,262,775)	\$ (9,070)
SA	\$ 3,393,093	23,015,000	\$ 0.1474	-	\$ -	\$ 0.1474	-	\$ -	-	\$ -
SM	\$ 890,277	5,733,000	\$ 0.1553	152,432	\$ 23,671	\$ 0.1553	110,250	\$ 17,121	262,682	\$ 40,792
SHS	\$ 10,988,709	48,806,000	\$ 0.2252	(2,917,674)	\$ (656,916)	\$ 0.2252	(356,401)	\$ (80,244)	(3,274,075)	\$ (737,160)
SE	\$ 1,399,587	35,699,000	\$ 0.0392	2,440,356	\$ 95,675	\$ 0.0392	(608,506)	\$ (23,857)	1,831,851	\$ 71,818
TS	\$ 20,787	334,000	\$ 0.0622	(2,745)	\$ (171)	\$ 0.0622	-	\$ -	(2,745)	\$ (171)
SI-1	\$ 14,599	87,000	\$ 0.1678	(556)	\$ (93)	\$ 0.1678	-	\$ -	(556)	\$ (93)
GH-1	\$ 5,750,873	299,775,000	\$ 0.0192	(4,044,455)	\$ (77,589)	\$ 0.0042	6,891,379	\$ 28,984	2,846,924	\$ (48,605)
GH-2	\$ 1,357,692	64,845,000	\$ 0.0209	(504,136)	\$ (10,555)	\$ (0.0013)	1,594,978	\$ (2,043)	1,090,842	\$ (12,598)
Total	\$ 644,615,113	37,618,625,000		77,839,903	\$ 1,494,769		29,157,344	\$ 229,352	106,997,248	\$ 1,724,120

Note: Excludes Company Use

**PPL Electric Utilities Corporation
2007 Annualization**

Transmission Only

(1)	(2)	(3)	(4) (2) / (3)	(5)	(6) (4) * (5)	(7)	(8)	(9) (7) * (8)	(10) (5) + (8)	(11) (6) + (9)
Rate	Revenue \$	Sales kWh	Average Price \$/kWh	Sales Adjustment - Customer Usage kWh	Customer Usage Revenue \$	Incremental Price \$/kWh	Sales Adjustment - Customer Growth kWh	Customer Growth Revenue \$	Total Sales Adjustment kWh	Total Revenue Adjustment \$
RS	\$ 77,978,133	13,782,978,000	\$ 0.0057	67,235,347	\$ 380,389	\$ 0.0059	26,060,986	\$ 154,049	93,296,333	\$ 534,438
RTS	\$ 2,183,290	385,602,000	\$ 0.0057	(1,618,994)	\$ (9,167)	\$ 0.0058	6,450,338	\$ 37,375	4,831,344	\$ 28,208
RTD	\$ 28,378	5,013,000	\$ 0.0057	(6,614)	\$ (37)	\$ 0.0058	129,967	\$ 757	123,352	\$ 720
GS-1	\$ 11,019,603	1,968,887,000	\$ 0.0056	(1,815,655)	\$ (10,162)	\$ 0.0062	(1,278,340)	\$ (7,887)	(3,093,995)	\$ (18,049)
GS-3	\$ 49,129,868	8,734,385,000	\$ 0.0056	18,346,183	\$ 103,195	\$ 0.0062	29,231,543	\$ 181,179	47,577,725	\$ 284,374
LP-4	\$ 33,140,323	5,868,659,000	\$ 0.0056	11,068,426	\$ 62,503	\$ 0.0060	(81,347,749)	\$ (485,430)	(70,279,322)	\$ (422,927)
ISP	\$ 1,942,791	343,821,000	\$ 0.0057	(927,449)	\$ (5,241)	\$ 0.0048	17,783,845	\$ 86,168	16,856,396	\$ 80,927
LP-5	\$ 18,021,425	3,194,563,000	\$ 0.0056	(39,572,701)	\$ (223,241)	\$ 0.0054	(45,206,080)	\$ (242,122)	(84,778,781)	\$ (465,363)
IST	\$ 11,176,214	1,980,277,000	\$ 0.0056	33,374,210	\$ 188,356	\$ 0.0047	-	\$ -	33,374,210	\$ 188,356
L5S	\$ 37,197	6,581,000	\$ 0.0057	80,743	\$ 456	\$ 0.0062	(1,974,300)	\$ (12,244)	(1,893,557)	\$ (11,788)
LP-6	\$ 2,055,141	363,650,000	\$ 0.0057	(32,428,067)	\$ (183,265)	\$ 0.0060	72,730,000	\$ 434,218	40,301,933	\$ 250,953
LPEP	\$ 406,884	72,000,000	\$ 0.0057	620,000	\$ 3,504	\$ 3.3280	-	\$ -	620,000	\$ 3,504
ISM	\$ 1,491,906	426,000,000	\$ 0.0035	28,543,136	\$ 99,962	\$ 2.7779	-	\$ -	28,543,136	\$ 99,962
IS-1	\$ 8,179	1,447,000	\$ 0.0057	26,327	\$ 149	\$ 0.0062	-	\$ -	26,327	\$ 149
BL	\$ 36,556	6,468,000	\$ 0.0057	(208,210)	\$ (1,177)	\$ 3.5000	(1,054,565)	\$ (3,690,978)	(1,262,775)	\$ (3,692,155)
SA	\$ 129,397	23,015,000	\$ 0.0056	-	\$ -	\$ 0.0056	-	\$ -	-	\$ -
SM	\$ 32,236	5,733,000	\$ 0.0056	152,432	\$ 857	\$ 0.0056	110,250	\$ 620	262,682	\$ 1,477
SHS	\$ 274,327	48,806,000	\$ 0.0056	(2,917,674)	\$ (16,400)	\$ 0.0056	(356,401)	\$ (2,003)	(3,274,075)	\$ (18,403)
SE	\$ 201,942	35,699,000	\$ 0.0057	2,440,356	\$ 13,805	\$ 0.0057	(608,506)	\$ (3,442)	1,831,851	\$ 10,362
TS	\$ 1,889	334,000	\$ 0.0057	(2,745)	\$ (16)	\$ 0.0057	-	\$ -	(2,745)	\$ (16)
SI-1	\$ 492	87,000	\$ 0.0057	(556)	\$ (3)	\$ 0.0057	-	\$ -	(556)	\$ (3)
GH-1	\$ 1,570,988	299,775,000	\$ 0.0052	(4,044,455)	\$ (21,195)	\$ 0.0053	6,891,379	\$ 36,313	2,846,924	\$ 15,118
GH-2	\$ 363,742	64,845,000	\$ 0.0056	(504,136)	\$ (2,828)	\$ 0.0062	1,594,978	\$ 9,855	1,090,842	\$ 7,027
Total	\$ 211,230,901	37,618,625,000		77,839,903	\$ 380,445		29,157,344	\$ (3,503,572)	106,997,248	\$ (3,123,127)

Note: Excludes Company Use

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SECRETARY'S BUREAU

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Docket No. R-00072155

PPL Electric Utilities Corporation

Statement No. 5

Direct Testimony of Douglas A. Krall

1 Q. Please state your full name and business address.

2 A. My name is Douglas A. Krall. My business address is Two North Ninth Street,
3 Allentown, Pennsylvania, 18101.

4

5 Q. By whom are you employed and in what capacity?

6 A. I am employed by PPL Electric Utilities Corporation ("PPL Electric" or the
7 "Company"), a subsidiary of PPL Corporation. I work in the Asset Management
8 Department of PPL Electric and my title is Manager – Regulatory Strategy.

9

10 Q. Please describe your primary responsibilities in that position.

11 A. As Manager – Regulatory Strategy, I am responsible for assisting in the
12 development of long-term strategy, goals and objectives; providing regulatory
13 insights into the development and implementation of business strategies; and
14 leading the development of responses to legislative, regulatory, and political
15 issues.

16

17 Q. What is your educational background?

18 A. I graduated from Stevens Institute of Technology in Hoboken, New Jersey in
19 1973 with a Bachelor of Engineering degree in Mechanical Engineering. I have
20 completed courses in Business Administration at Muhlenberg College in
21 Allentown, Pennsylvania.

22

23 Q. Are you a registered Professional Engineer?

1 A. Yes. I have been a registered Professional Engineer in the Commonwealth of
2 Pennsylvania since 1977. My registration number is PE-026733-E.

3

4 Q. Please describe your professional experience.

5 A. I joined the Mechanical Engineering Department of PPL Electric's predecessor,
6 Pennsylvania Power and Light ("PP&L"), in 1973 as an Engineer-Level I working
7 on studies related to PP&L's generating plants. In 1974, the engineering
8 functions were restructured and I became a member of the Power Plant
9 Engineering Department. In 1975, I was promoted to the position of Engineer-
10 Level II and, in 1978, to the position of Project Engineer within that department.
11 Later in 1978, I transferred to the System Planning Department and, in 1981, I
12 was promoted to the position of Senior Project Engineer. In both of those
13 positions I was responsible for the development of plans related to maintaining
14 and upgrading PP&L's existing fossil and hydro generating plants. In 1984, I was
15 promoted to the position of Manager-Generation Development Planning within
16 the System Planning Department with responsibility for the portion of PP&L's
17 capital budget related to existing fossil and hydro generating plants as well as
18 overall administrative responsibility for PP&L's capital budget. I also was, in that
19 position, PP&L's coordinator for activities related to compliance with the 1990
20 Federal Clean Air Act Amendments. In December 1994, my title changed to
21 Manager-Integrated Resource Planning, but the duties remained relatively the
22 same. In April 1996, I became the Manager-Resource Planning and Pricing. In
23 that capacity, I supervised the development of integrated resource plans, the

1 administration of PP&L's responsibilities regarding non-utility generation, the
2 development of PP&L's capital budget, and the development and administration
3 of PP&L's tariff for electric service. When the Competition Act was passed in
4 Pennsylvania in late 1996 and the pace of industry restructuring accelerated, my
5 duties in this position changed rapidly. The generation and capital budgeting
6 functions were moved to other organizations and, ultimately, to different affiliates.
7 In their place, I took on new duties related to load analysis and coordination of
8 activities within the regulated distribution entity to implement customer choice.
9 In August 2001, I assumed my current position.

10
11 Q. Have you previously testified as a witness before the Pennsylvania Public Utility
12 Commission ("PUC") or the Federal Energy Regulatory Commission ("FERC")?

13 A. Yes. I have testified before the PUC on numerous occasions including the
14 Company's restructuring proceeding (Docket No. R-00973954), two base rate
15 proceedings (Docket Nos. R-00943271 and R-00049255), the Company's 2006
16 filing which requested approval of a plan to provide default service at the end of
17 the generation rate cap (Docket No. P-00062227), proceedings regarding non-
18 utility generators, and proceedings arising from customer complaints.

19 At the FERC, I have testified in regard to PP&L's compliance plans under
20 the 1990 Clean Air Act Amendments (Docket No. ER95-1267), and in regard to
21 PP&L's investment in generating plants to serve its wholesale customers (Docket
22 No. SC97-1-000).

23

1 Q. What is the purpose of your testimony in this proceeding?

2 A. My testimony addresses the following:

- 3 1. The Company's construction budget which provides the basis for estimates of
4 electric plant additions and retirements reflected in the future test year.
- 5 2. The Company's response to Question II-B-1 of Exhibit Regs., § 53.53, Part II,
6 Primary Statements of Rate Base and Operating Income ("Question II-B-1")
7 and the Company's claim for land held for future use.
- 8 3. The Company's proposal to implement energy conservation, energy
9 efficiency, demand-side response, and consumer education programs for its
10 customers.
- 11 4. The Company's request to recover from customers costs associated with an
12 ice storm that occurred in January 2005.
- 13 5. The Company's purchase of insurance to recover costs associated with
14 storm-related damage.
- 15 6. Concerns raised by the Governor's Energy Independence Strategy.
- 16 7. The allocation of the revenue increase.

17

18 Q. What exhibits are you sponsoring in this proceeding?

19 A. I am sponsoring Exhibit DAK 1. I am also responsible for portions of the
20 information supplied in Schedule D-2 of Exhibit Future-1. In addition, I am
21 responsible for and will sponsor the Company's response to Question II-B-1.

22

1 **Additions to Rate Base**

2 Q. Please describe Exhibit DAK 1.

3 A. Exhibit DAK 1 is a table that summarizes portions of PPL Corporation's 2007-
4 2011 Capital Budget which relate to the capital spending needs of PPL Electric.
5 At PPL Corporation, a capital budget is prepared annually to identify the capital
6 requirements of the corporation and to establish a basis for financial and
7 manpower planning. Each of the corporation's business lines is responsible for
8 identifying, evaluating, and approving projects for inclusion in its capital budget,
9 and then forwarding all of that data to the Financial Department where the
10 Capital Budget for PPL Corporation is reviewed and consolidated.

11
12 Q. Please describe the major headings listed on Exhibit DAK 1.

13 A. The major headings on Exhibit DAK 1 are "Electric Utilities" and "Facilities
14 Management". The section headed "Electric Utilities" summarizes capital
15 requirements related to the distribution and transmission systems. The section
16 headed "Facilities Management" summarizes capital requirements related to
17 service centers, crew quarters, and office buildings. Supporting the annual
18 amounts shown on Exhibit DAK 1 are lists of projects, schedules for projects, and
19 estimates of project costs. Those lists, schedules, and estimates provide the
20 detailed information that is the basis of the estimates of property additions and
21 retirements that appear in the Company's response to Question V-A-3 of Exhibit
22 Regs., § 53.53, Part II, Primary Statements of Rate Base and Operating Income
23 ("Question V-A-3").

1 Q. Please describe the categories of expenditures listed in the section of Exhibit
2 DAK 1 headed "Electric Utilities".

3 A. The categories listed in this section and a description of each is as follows:

4 1. "Provide Electric Service" includes projects to install new service for
5 residential, commercial, and industrial customers (including service upgrades
6 for existing customers to serve additional load), street lighting additions and
7 modernization, and purchases of distribution transformers. Work in this
8 category is a function of customer requests. Forecasts of capital
9 requirements are based on forecasted economic conditions and projected
10 numbers of new customers.

11 2. "Upgrade System Facilities" includes specific projects required to ensure and
12 enhance system capacity and reliability. Projects are driven by forecasts of
13 load growth and identified as a result of engineering studies that simulate
14 system loadings under a variety of conditions. Also included in this category
15 are funds for relocations due to highway improvements or other rights-of-way
16 interferences. Forecasts of capital requirements for these last two items are
17 based on recent spending history.

18 3. "Assure System Reliability" includes funding for the replacement of
19 deteriorated, obsolete, or failed equipment. Work in this category is a
20 function of identifying a need as the result of inspection, testing, scheduled
21 replacement, or failure. Forecasts of capital requirements reflect inspection
22 and testing plans, the age of equipment, and previously observed conditions.

1 Q. Please describe the categories of expenditures listed in the section of Exhibit
2 DAK 1 headed "Electric Utilities".

3 A. The categories listed in this section and a description of each is as follows:

- 4 1. "Provide Electric Service" includes projects to install new service for
5 residential, commercial, and industrial customers (including service upgrades
6 for existing customers to serve additional load), street lighting additions and
7 modernization, and purchases of distribution transformers. Work in this
8 category is a function of customer requests. Forecasts of capital
9 requirements are based on forecasted economic conditions and projected
10 numbers of new customers.
- 11 2. "Upgrade System Facilities" includes specific projects required to ensure and
12 enhance system capacity and reliability. Projects are driven by forecasts of
13 load growth and identified as a result of engineering studies that simulate
14 system loadings under a variety of conditions. Also included in this category
15 are funds for relocations due to highway improvements or other rights-of-way
16 interferences. Forecasts of capital requirements for these last two items are
17 based on recent spending history.
- 18 3. "Assure System Reliability" includes funding for the replacement of
19 deteriorated, obsolete, or failed equipment. Work in this category is a
20 function of identifying a need as the result of inspection, testing, scheduled
21 replacement, or failure. Forecasts of capital requirements reflect inspection
22 and testing plans, the age of equipment, and previously observed conditions.

- 1 4. "Revenue Cycle Service" includes electric meters for new services.
2 Forecasts of capital requirements are based on the forecast of new
3 customers.
4 5. "Information Technologies" includes large projects involving the installation of
5 computer software and/or hardware. Forecasts of capital requirements reflect
6 specific identified projects and, also, an allocation based on historical
7 spending levels. The meter data management system described later in my
8 testimony is included here as a specific project.
9 6. "Vehicles" includes the cost of cars, trucks, and mobile equipment. Forecasts
10 of capital requirements reflect the age of the existing fleet and, also, historical
11 spending levels.
12 7. "Other" reflects miscellaneous items such as office furniture, tools and
13 equipment, and site acquisitions. Forecasts of capital requirements reflect
14 recent history.
15 8. "Respond To Customer" includes small projects to resolve customer concerns
16 related to outages, voltage complaints, street and area lighting problems,
17 property damage, flickering lights, and other concerns. Forecasts of capital
18 requirements are based on recent history.

19
20 Q. Please describe the categories of expenditures listed in the section of Exhibit
21 DAK 1 headed "Facilities Management".

22 A. The categories listed in this section and a description of each is as follows:

- 1 1. "Replacement" includes projects to replace equipment that can no longer be
2 maintained and is required for the continued operation of the building.
- 3 2. "Working Conditions/Safety" includes projects required to provide employees
4 a safe and acceptable work environment.
- 5 3. "Environmental" includes projects required to meet state and local
6 environmental regulations.

7 Forecasts of capital requirements in each category are based both on lists of
8 specific identified needs and on recent history.

9

10 Q. Do the capital requirements set forth in Exhibit DAK 1 and the associated
11 property additions and retirements that appear in the Company's response to
12 Question V-A-3 represent, in your opinion, a necessary investment in facilities by
13 PPL Electric?

14 A. Yes. The capital requirements set forth in Exhibit DAK 1 and the associated
15 property additions and retirements that appear in the Company's response to
16 Question V-A-3 are the result of careful engineering studies extending over many
17 months, and of inspection and testing programs designed to monitor the
18 condition of equipment and to anticipate the need to replace or upgrade it. This
19 forecast of capital requirements reflects PPL Electric's best estimate of the
20 facilities needed to provide reliable and economic delivery service both now and
21 in the future. This forecast also considers the need to provide new and upgraded
22 facilities which are necessary to maintain and, where appropriate, improve the

1 efficiency of operating personnel. I believe that this forecast is reasonable and
2 represents a prudent level of investment.

3
4 **Land Held for Future Use**

5 Q. Please explain PPL Electric's response to Question II-B-1.

6 A. PPL Electric's response to Question II-B-1 provides a table of sites and rights-of-
7 way that the Company has acquired in anticipation of the construction of
8 substations and lines. The response includes sites and rights-of-way for both
9 transmission and distribution projects, however, the Company is seeking
10 approval to include in rate base only those sites and rights-of-way associated
11 with distribution projects. The total request associated with distribution land is
12 \$2,212,678 which consists of \$1,916,265 for distribution substations, \$30,075 for
13 distribution lines, and \$266,338 for the installation of manholes and conduit for
14 distribution lines. The response to Questions II-B-1 lists 14 individual sites and
15 rights-of-way, a description of the project each supports, the original date each
16 was acquired, and the expected date of use for each.

17 In this proceeding, PPL Electric is making a claim for the \$2,212,678
18 related to distribution land held for future use. If this claim is not approved by the
19 Commission, PPL Electric, in the alternative, is requesting approval to accrue a
20 return equivalent to the applicable AFUDC rate on these investments and to
21 include the accrued amount as part of its distribution plant in-service at the time
22 such plant is placed into service.

1 Q. Why has PPL Electric acquired these sites and rights-of-way?

2 A. This land has been acquired because it was prudent to do so in support of the
3 construction of distribution lines and substations that will be necessary to
4 maintain reliability and accommodate new customers in the coming years.

5 The conditions that produce growth in electrical demand also will result in
6 expansion of land occupancy. Residential, commercial, and other construction in
7 an area may render it more costly or disruptive to the community to purchase
8 land at the last possible moment. When a need can be identified, it is in the
9 community interest to purchase land well in advance and record the land or right-
10 of-way purchase. This provides the community with an awareness of PPL
11 Electric's plans for the area.

12 Another consideration is that the necessary land or right-of-way may not
13 be available when needed in the future, which may require significant changes in
14 the overall plan for development of the distribution system; potentially making
15 necessary development more costly to customers.

16 Allowance must be made for local planning discussions, for negotiations,
17 for siting approval by the Commission and for possible condemnation
18 proceedings. Needs must, therefore, be anticipated as far in advance as
19 possible and the necessary steps taken to acquire essential land and easements.

20

21 **Demand-Side Management and Conservation/Efficiency Infrastructure**

22 Q. Please describe efforts that PPL Electric has underway to provide demand-side
23 management and consumer education programs to customers.

1 A. PPL Electric's generation rate caps will expire on December 31, 2009, in
2 accordance with the Commission-approved settlement of its restructuring case.
3 PPL Electric has initiated a number of activities to provide its customers with the
4 resources they will need to make wise choices regarding how they use electricity
5 when prices are more reflective of market conditions. The following specific
6 efforts are reflected in this filing:

- 7 • Installation of a Meter Data Management System ("MDMS") which will
8 enhance the Company's Advanced Meter Reading ("AMR") system with the
9 functionality of an Advanced Metering Infrastructure ("AMI") system.
- 10 • Five new energy efficiency and energy conservation programs.
- 11 • Consumer education regarding the wise use of energy.

12
13 Q. Please briefly describe PPL Electric's AMR system.

14 A. PPL Electric's AMR system consists of meters, communications infrastructure,
15 computer servers, and applications that enable the Company to remotely read
16 the meters of all of its 1.4 million customers. Logic built into the meters causes
17 them to record readings at appropriate times; i.e., hourly, daily, or monthly. The
18 meters send their data in response to prompts from various sources including the
19 billing system (in the case of billing reads), another meter information need (such
20 as load research), or an individual user such as a Customer Service
21 Representative ("CSR").

22
23 Q. Please describe how the AMR installation is benefiting customers.

1 A. The following are the most significant economic benefits that accrue to
2 customers:

- 3 • The manual reading of meters for billing is discontinued and the meter
4 reading workforce can, over time, be eliminated.
- 5 • With AMR, the need for and number of estimated reads will be reduced and
6 customer calls regarding estimated meter readings and access to meters are
7 virtually eliminated. In addition, the time required to handle telephone calls
8 regarding high usage/high bills will be greatly reduced because the CSRs
9 have available to them actual daily usage information for each account. The
10 reduction in call volume and duration translates into fewer CSR positions.
- 11 • The ability to obtain meter reads remotely also will greatly reduce the need to
12 send servicemen to obtain special reads in circumstances such as a final
13 read (when an account is closed) and for high usage/high bill investigations.

14
15 Q. Please describe what PPL Electric is doing to transform the existing AMR system
16 to an AMI system.

17 A. Although the AMR system is capable of querying meters on demand and,
18 thereby, capable of acquiring data to support hourly or time-of-use billing and
19 data presentment to customers, the AMR system is only capable of storing
20 limited amounts of data and includes no functionality to present that data to
21 customers. In addition, PPL Electric's existing customer billing and information
22 system has only limited capability to bill customers based on hourly quantities or

1 to perform time-of-use billing. In order to transform its AMR system into an AMI
2 system, the Company is installing a MDMS that includes the following:

- 3 • A customer interface that will permit customers to analyze and better
4 understand their electricity usage and bills,
- 5 • A data repository capable of storing two years of hourly reads from all of its
6 customers,
- 7 • A complex billing engine that will be capable of billing customers using hourly
8 data, and
- 9 • An energy settlement system that will permit electric generation suppliers to
10 serve customers' actual hourly usage rather than usage determined by a load
11 profile that reflects the average usage of a broad population of customers.

12 The Company has included a \$1.5 million capital addition in the historic test year
13 rate base and a \$1.7 million capital addition in the future test year rate base to
14 reflect MDMS components that were placed in service in late-2006 and additional
15 components that will be placed in service during 2007.

16
17 Q. How, specifically, will this functionality support demand-side management and
18 consumer education?

19 A. This functionality will support demand-side management and consumer
20 education:

- 21 • The installation of these additional capabilities will provide PPL Electric's
22 customers with understanding and tools that will permit them to manage their
23 consumption of electricity and their electric bills in a market environment.

1 Customers will be able to understand how their usage varies, how hourly
2 prices vary, and identify ways that they may reduce or shift their usage for
3 their own economic benefit.

- 4 • AMI capabilities support the development of new rate options that will permit
5 customers to achieve significant savings. As an example, participants in PPL
6 Electric's Demand-Side Response Pilot – Residential have demonstrated the
7 ability to save on the generation portion of their bill. A full scale program will
8 be possible with the development of a system to manage the collection of
9 hourly meter data and the manipulation of that data into billing quantities.
- 10 • At the end of the generation rate cap, data obtained through the AMI system
11 will support generation purchases and pricing for default service loads. This
12 more detailed data may enhance load scheduling and reconciliation leading to
13 a reduction in wholesale procurement risk and a commensurate reduction in
14 wholesale prices.
- 15 • The Company expects that the availability of hourly data for those customers
16 who are interested in shopping, coupled with the opportunity for suppliers to
17 serve the customers' actual load, rather than a load profile, will result in more
18 competitive offers, more opportunities for customers to save money, and an
19 increase in shopping.
- 20 • With better data and an opportunity to serve actual usage, the Company
21 expects that suppliers will be better able to offer customers a variety of
22 demand-side programs.

23

1 **Demand-Side Management and Conservation/Efficiency Programs**

2 Q. What specific demand-side management and consumer education programs
3 does the Company propose to offer to customers?

4 A. As described above, the Company already has in place demand response pilot
5 *programs for residential and non-residential customers for which, in the context*
6 *of other proceedings, the Company has proposed extensions and expansions. In*
7 *this proceeding, the Company is proposing five new programs related to*
8 *demand-side management education. The Company is seeking approval to*
9 *pursue development and implementation of these programs, and approval to*
10 *recover the costs associated with the programs. It is the Company's intent to*
11 *initiate development in 2007 and fully test implementation details and customer*
12 *acceptance during 2008 so that the programs can be made available to*
13 *customers in 2009; i.e., prior to the expiration of the generation rate caps and the*
14 *introduction of pricing that is more reflective of the market. The Company also is*
15 *proposing, in this proceeding, a cost recovery mechanism that will allow*
16 *programs to be revised and new programs to be added in a timely manner with*
17 *appropriate Commission review and approval, but without the need for a base*
18 *rate proceeding. Each of these programs and the cost recovery mechanism are*
19 *described in more detail in the direct testimony of Mr. Homa.*

20
21 Q. Are the programs proposed by Mr. Homa the only programs aimed at the wise
22 use of energy that the Company is undertaking?

1 A. No, they are not. The Company already has pending before the Commission a
2 consumer education program focused on the specific elements of its 2010 default
3 service plan. The Company's proposal in that proceeding is to expend remaining
4 choice education dollars totaling \$875,000 during the years 2007, 2008, and
5 2009 for the purpose of educating customers on the changes that they will
6 experience as a result of the implementation of the proposed 2010 plan.
7 Because the choice education monies were established pursuant to the
8 settlement of the Company's restructuring case in 1998 and were set aside at
9 that time, that program has no impact on current or proposed rates in this
10 proceeding. The Company also has included in its 2007 operating budget, and in
11 the future test year in this proceeding, about \$4.4 million to begin to introduce
12 customers to the customer interface being installed as part of the meter data
13 management system that will permit customers to better understand their
14 electricity usage and bills, and to pursue energy efficiency and conservation
15 measures.

16
17 Q. Please describe the activities that are included in the \$4.4 million related to the
18 MDMS functionality for 2007.

19 A. As described above, the MDMS that the Company is installing consists of several
20 separate components, including a customer interface that will permit customers
21 to analyze and better understand their electricity usage and bills. Customers will
22 be able to access the interface through the Company's internet site. Once there,
23 customers will be able, among other things, to:

- 1 • Review their bills and bill histories.
- 2 • Compare their billed usage from one period to another.
- 3 • Complete a home energy use survey which will provide an individual analysis
- 4 of their energy usage, comparisons to similar residences in their area, and
- 5 suggestions on how to reduce consumption and bills.
- 6 • Estimate the value of various energy efficiency and conservation measures.
- 7 • Access a library and web links to obtain energy tips and detailed information
- 8 on energy-related topics.

9 The interface will be available for the first time to customers in June, 2007. At
10 that time, all non-residential customers and certain groups of residential
11 customers also will be able to view hourly usage data. By 2008, all customers
12 should be able to view hourly data. Once enough hourly data has been collected
13 for all customers, the energy analysis functions will begin using individual
14 customer usage histories, instead of group profiles, and, thereby, provide
15 customers individualized analyses. Ultimately, the Company will add
16 functionality to permit customers to assess the value of different rate options and
17 to assess opportunities to shift load from on-peak to off-peak periods.

18 The Company also is developing materials to be delivered by television,
19 print media, and bill inserts that are intended to make customers aware of the
20 new interface and of its potential value to them. This effort is planned to support
21 making the interface available to customers in June, 2007. In addition, the
22 Company is working on modifications to its website to make it consistent with the

1 messages being delivered through the media channels, and coordinate this new
2 self-service functionality with other existing self-service functionality.

3

4 Q. What sorts of consumer education needs does the Company anticipate will
5 require funding beyond 2007?

6 A. The following are some needs that the Company has identified which will require
7 funding in the years following 2007:

- 8 • As described above, continuation of the programs proposed by Mr. Homa. It
9 also is likely that his efforts will result in the development of additional
10 programs that presently are not included within his budget.
- 11 • It is likely that additional state and federal programs promoting energy
12 efficiency and conservation will be created in coming years and the Company
13 anticipates the need to educate its customers on the existence of such
14 programs and how customers can avail themselves of the benefits of such
15 programs.
- 16 • Follow-up and reinforcement of efforts begun in 2007 regarding the
17 functionality available through the customer interface, as well as the
18 development of options for customers who do not have access to computers.
- 19 • The customer interface described above is designed primarily around the
20 needs of small customers. Efforts will be required to identify enhancements
21 and associated consumer education materials that may be appropriate to
22 address needs specific to large customers.

- 1 • The Company currently plans to proactively provide accumulated hourly data
2 to customer groups likely to be exposed to hourly default service pricing in
3 order to make them aware of decisions that will be available to them and to
4 provide data to support those decisions. Delivery channels and collateral
5 consumer education materials must be developed and put in place.
- 6 • The Company expects to expand its existing support for industrial and
7 commercial customers in order to address a likely increase in inquiries
8 regarding default service pricing and competitive options.

9
10 **Amortization of Costs Associated with the January 2005 Ice Storm**

11 Q. Please explain PPL Electric's request for recovery of the amortized costs
12 associated with the January 2005 ice storms.

13 A. On February 11, 2005, PPL Electric requested Commission authority to defer, for
14 accounting and financial reporting purposes, losses arising from severe damage
15 caused by ice storms that occurred across the Company's service territory in
16 January 2005 and to amortize those losses and seek recovery from customers in
17 a future base rate proceeding. The ice storms struck PPL Electric's service
18 territory commencing on January 5, 2005 and continuing through January 11,
19 2005. The losses which PPL Electric requested permission to defer were
20 increases in operation and maintenance, customer, and general administrative
21 expenses incurred by PPL Electric in preparing to respond to the damage from
22 the storm, restoring service to customers, assisting customers during the service
23 interruptions, and repairing facilities damaged by the storm. The Company

1 specifically excluded from its request those costs related to regular payroll costs
2 for hours when employees normally work and capital expenses such as new
3 poles, wires, and transformers. In its petition, PPL Electric specifically
4 acknowledged that it was not requesting that the Commission decide, at that
5 time, whether its deferred losses were recoverable from customers. PPL Electric
6 stated in its petition that approval to recover such losses as well as the length of
7 the amortization would be determined in such future rate base proceeding. The
8 Commission granted PPL Electric's request to defer storm-related losses for
9 accounting and financial reporting purposes in an order entered on August 26,
10 2005 at Docket No. P-00052148. The Commission also directed the Company to
11 amortize the losses over a 10-year period and to begin immediately to expense
12 the amortized amounts. In the instant proceeding, PPL Electric is requesting
13 approval to recover in rates \$1.61 million per year related to the amortization of
14 ice storm losses over the remaining 8 years of the 10-year amortization period.
15 This request is included as an adjustment to Operation and Maintenance
16 Expenses in the future test year and, accordingly, is included in Schedule D-2 of
17 Exhibit Future 1.

- 18
- 19 Q. Please describe the damage that PPL Electric and its customers experienced as
20 a result of the ice storms.
- 21 A. The ice storms that struck the Company's service territory in January, 2005
22 unquestionably constitute an extraordinary event. The ice storms began to affect
23 PPL Electric's service territory on January 5, 2005, with the first service

1 interruption reported in the early morning of January 6. Through the following
2 days, temperatures remained below freezing which prevented ice on trees and
3 wires from melting and allowed additional ice to accumulate as each storm hit the
4 area in succession. Ice build-up on trees and wires reached a thickness of 1 inch
5 or more in many areas. The succession of storms affected customers principally
6 in four (4) of the Company's operating areas: Lehigh, Northern, Central, and
7 Susquehanna. The Pocono, Wilkes-Barre, White Haven, Hazelton, Panther
8 Valley, Frackville, and Sunbury areas were hit hardest. More than 90 percent of
9 the service interruptions were caused by the weight of the accumulated ice
10 exacerbated by wind and breaking branches that fell on wires and poles. More
11 than 70 percent of the tree-related service interruptions were caused by
12 vegetation outside of PPL Electric's rights-of-way. The accumulated ice loading
13 had a delayed effect on many trees, resulting in continued tree falls for more than
14 a week afterwards. As a result, PPL Electric experienced damage to its wires
15 and service interruptions even after the storms abated. This coupled with the
16 fact that the areas which were affected contain vacation homes resulted in
17 certain service interruptions not being reported to PPL Electric until January 15.
18 All service was restored by January 16, 2005. Ultimately, these storms caused
19 service interruptions for varying periods to 238,154 customers, or about 18% of
20 the Company's customer base.

21 This series of storms caused more damage and service interruptions than
22 any other winter storm or series of storms in the Company's recorded history. In

1 addition, the costs incurred by PPL Electric in responding to these storms
2 exceeded the cost incurred for any storm of any kind in the Company's history.

3

4 Q. Can you provide some additional facts that help place the severity of this event in
5 context?

6 A. Yes. I believe the following information will provide some appreciation for the
7 magnitude of the storm and the scope of PPL Electric's efforts to respond to it:

- 8 • PPL Electric generally considers a storm to be large if it causes more than
9 1,000 individual cases of system repairs. This series of storms caused 1,895
10 individual cases of system repairs.
- 11 • About 2,096 people were involved in the restoration and customer support
12 including about 1,398 employees from PPL Electric and PPL Services; and
13 about 698 people from other utilities and contractors. Electric utilities that
14 provided line crews included Conectiv, PECO, Orange & Rockland, PEPCO,
15 and PSE&G. Electrical and tree service contractors assisting in service
16 restoration efforts included Asplundh, Dincher & Dincher, Everhart and
17 Hoover, Henkels & McCoy, Jaflo, K.T. Power, Kocher's Tree Service, C. W.
18 Wright, Carr & Duff, G&G Electric, Four Seasons, Utility Line, Utility Alliance,
19 New River Electric, Lombardo & Lipe, and M. J. Electric.
- 20 • PPL Electric activated its Customer Outreach Program to notify customers
21 expected to be out of service for more than twenty-four (24) hours. Customer
22 Outreach began on January 6 in the late afternoon and continued daily
23 through January 15. As part of this effort, PPL Electric made more than

1 51,000 telephone calls to inform customers of available emergency services
2 and the location of stores distributing ice, dry ice and drinking water at no
3 charge to affected customers. PPL Electric purchased advertising on several
4 local radio stations to notify customers of restoration progress and to remind
5 customers how to report service interruptions and to avoid downed lines.

- 6 • PPL Electric, as a result of consultation with local Emergency Management
7 officials, arranged for catered meals for five (5) emergency shelters and
8 delivered hot meals and groceries to some homebound customers.
- 9 • PPL Electric went door-to-door in three (3) of the hardest hit residential
10 developments to contact customers and to provide them with the status of
11 restoration efforts, to distribute emergency supplies, to inform them of the
12 availability of food at community centers, and to identify and take care of any
13 special needs.

14
15 Q. Please describe the costs that PPL Electric incurred in restoring service to its
16 customers and that it is requesting in this proceeding be recovered from
17 customers.

18 A. PPL Electric incurred a total of \$20.3 million in costs associated with the January,
19 2005 ice storms. Of that total, \$2.8 million is for capital and \$17.5 million is for
20 expense-related items. Capital items are reflected in PPL Electric's rate base as
21 property additions that occurred in 2005. Of the expense total, \$1.4 million is
22 associated with regular pay and benefits. In its petition at Docket No. P-
23 00052148, the Company requested deferral for the purposes of accounting and

1 financial reporting of an amount estimated to be \$17 million. As stated in the
2 petition, this figure represented the Company's estimate, made on February 11,
3 2005 and prior to all invoices being processed, of storm-related losses, excluding
4 capital and regular pay and benefits. Based on final accounting, that figure
5 turned out to be \$16.1 million and includes expenditures for the following;

- 6 • Overtime wages
- 7 • Expenses for outside crews
- 8 • Expenses for vehicles and equipment
- 9 • Expenses for customer outreach
- 10 • Equipment charges.

11 In accordance with the Commission's August 26, 2005 Order, the Company has
12 established an amortization of the \$16.1 million over a 10-year period
13 commencing in August, 2005 and extending through July, 2015. In this
14 proceeding, the Company is requesting Commission approval to recover through
15 rates \$1.61 million per year through the end of the amortization period.

16
17 Q. Does PPL Electric anticipate storms in the context of its budgeting?

18 A. Yes, PPL Electric historically has included costs in its budget in anticipation that
19 storms will occur. In its 2005 budget, PPL Electric budgeted about \$7 million for
20 storm-related costs for the entire year based on the expectation of "normal" storm
21 activity. Normal activity has been defined for budgeting purposes as five (5)
22 PUC-reportable storms with a restoration requirement of about 6,000 manhours
23 each and one major storm requiring 20,000 manhours and the involvement of

1 outside crews. Clearly, the costs associated with storms of the magnitude of
2 the January, 2005 ice storms have not been reflected in the budgets of PPL
3 Electric. Consequently, those costs have not been reflected in the rates that the
4 Company charges its customers, even though incurring those costs is wholly
5 consistent with PPL Electric's obligation to provide reliable electric service to its
6 customers.

7
8 Q. Why hasn't PPL Electric budgeted more money for storm-related costs and
9 sought the recovery of such costs in rates?

10 A. PPL Electric recognizes the difficulty in forecasting storm events and the issues
11 that creates from a ratemaking perspective. In its Opinion and Order entered
12 January 11, 2007 at Docket No. R-00061366, the Commission denied a request
13 by Metropolitan Edison Company and Pennsylvania Electric Company to institute
14 a "storm damage rider" to recover storm-related expenses above an amount
15 recovered in base rates. In denying the request, the Commission stated, "...the
16 Companies can file a petition with the Commission for deferred accounting and
17 seek recovery of the expense in its next base rate filing." That is exactly the
18 approach that PPL Electric has pursued with regard to the losses incurred as a
19 result of the January, 2005 ice storms.

20
21 **Storm Insurance**

22 Q. Please describe how the Company proposes to address storm costs in the
23 future.

1 A. In June, 2006, the Company was able to obtain insurance against a portion of the
2 damage resulting from storms. An adjustment is included to historic test year
3 expenses to reflect that portion of the insurance premium that was applicable to
4 six-months of coverage during 2006 for damage to the distribution system as the
5 result of storms. The future test year budget reflects the payment of the
6 insurance premium for a full twelve months of coverage for the distribution
7 system. Under the policy, PPL Electric is responsible for a deductible amount
8 equivalent to its "normal" storm expenses. Accordingly, the Company has
9 included \$7.5 million in its test year budgets to reflect the normal storm
10 experience described above at today's cost.

11

12 Q. Please describe the insurance coverage in more detail.

13 A. PPL Electric's investigation into insurance products determined that, particularly
14 in the wake of the large, devastating hurricanes of the last several years, the
15 primary property insurance market does not offer any coverage applicable to
16 utility distribution systems. The coverage that PPL Electric has obtained consists
17 of two parts: primary coverage through its affiliate, PPL Power Insurance Ltd.
18 ("PPL Power"), and secondary coverage through the re-insurance market. Under
19 the coverage, PPL Electric is responsible for a total of \$7.5 million for all storms
20 during a one-year period with a maximum exposure of \$5 million per storm within
21 the \$7.5 million total. Once these deductible amounts are satisfied, PPL Power's
22 coverage provides up to \$15 million per storm within a total of \$20 million for all
23 storms during the one-year period. Beyond PPL Power's coverage, the re-

1 insurance coverage provides up to \$10 million per storm within a total of \$10
2 million for all storms during the one-year period subject to an additional \$15
3 million deductible. Coverage does not include regular pay and benefits, nor does
4 it include capital costs. The premium for this coverage during the period June 5,
5 2006 through June 5, 2007 is \$7,560,000 with \$5,749,000 of this amount
6 reflected in the test year as being associated with coverage for damage
7 sustained by distribution property. The future test year also includes amounts for
8 coverage the Company expects to obtain for distribution property for the period
9 June 5, 2007 through June 5, 2008. These amounts assume the same premium
10 as the existing coverage.

11
12 Q. Please describe how this coverage would have provided benefits to customers in
13 the circumstance of the January 2005 ice storms.

14 A. During 2005, the Company incurred \$23.8 million in storm-related costs with the
15 largest single storm being the ice storm event at \$20.3 million. Assuming, for the
16 purposes of this illustration, that the coverage was in place from January 1, 2005
17 to January 1, 2006, the ice storm would have been the first event and would have
18 satisfied the single occurrence deductible of \$5 million. Primary coverage would
19 then have provided \$11.1 million (or \$15.3 million less the \$4.2 million associated
20 with capital and regular pay and benefits). The remaining \$3.5 million in storm-
21 related costs reflects several small storms. The Company would have been
22 responsible for the first \$2.5 million under the annual deductible. The remaining
23 \$1 million, less capital and regular wages and benefits, would have been covered

1 by PPL Power. In this example, there would have been no need for the
2 Company to petition the Commission for approval to defer for accounting
3 purposes or to pursue recovery of extraordinary costs. Customers would have
4 paid a \$5.7 million premium and, in exchange, received \$12.1 million in storm
5 restoration benefits.

6
7 Q. What has the Company's experience been under the coverage now in force?

8 A. Since June 5, 2006 and through February 28, 2007, the Company has incurred
9 about \$10.4 million in storm-related damage with the largest single occurrence a
10 wind and rain storm that occurred on December 1, 2006 and resulted in about
11 \$3.7 million in losses. Through the first nine months of the coverage, the
12 Company's deductible has been satisfied and it appears that it may be able to
13 make a claim for \$2.9 million under the coverage.

14
15 **Concerns raised by the Governor's Energy Independence Strategy**

16 Q. Have you reviewed the Governor's Energy Independence Strategy ("Strategy")
17 with regard to changes to the Public Utility Code relating to electricity service?

18 A. Yes. I am a member of an internal team reviewing the Strategy to develop
19 appropriate Company responses. That team's work is not complete and I am not
20 testifying on the merits of specific provisions in the Strategy. However, I can say
21 that several provisions of the Strategy, if enacted into law, could increase the risk
22 of revenue loss for PPL Electric in several critical areas.

23 Q. What is the first area of concern?

1 A. The first concern is the provision relative to micro-grids. The Strategy defines a
2 micro-grid as a small power generation and distribution network directly serving
3 multiple consumers with an electric generating facility located near or on the
4 same site as the consumer. Further, the Strategy provides that micro-grids may
5 be interconnected to the transmission and distribution system, but must operate
6 independently. If enacted, this proposal would expressly exempt a micro-grid
7 from the definition of a "public utility" in Pennsylvania if it provides service to four
8 or fewer customers. It also would permit the Commission to exempt micro-grids
9 serving more than four customers from regulation if the Commission determines
10 that the micro-grid is providing a private, rather than a public service. The
11 provision limits Commission jurisdiction over qualifying micro-grids to the setting
12 of fees for interconnection, standby power and other services related to reliable
13 and safe functioning of micro-grids.

14
15 Q. Why are these provisions of concern to the Company?

16 A. These provisions create a significant risk that PPL Electric may lose customers,
17 particularly high load factor customers that use its distribution system efficiently.
18 In addition to the loss of customers and revenues, the Company also could face
19 a decreasing load factor on its system, making its operations and investments
20 less efficient. This risk is increased by the provision permitting the Commission
21 to exempt micro-grids serving large numbers of customers on a "case-by-case"
22 basis, because larger micro-grids could be developed to attract PPL Electric's
23 high load factor customers away from its distribution system.

1 In addition, the Strategy places new requirements on PPL Electric to sell
2 standby power and other services to micro-grids at the “lowest cost necessary to
3 ensure adequate system reliability and safety”. This requirement is not defined,
4 thus creating significant uncertainty as to how PPL Electric will be compensated
5 for services it may be required to offer interconnected micro-grids. Further, the
6 Company’s distribution facilities may be required to provide access for the micro-
7 grids to sell power back to the electric transmission and distribution system.
8 Although the Strategy provides that the micro-grids may sell power back to the
9 grid, it does not provide clear guidance as to the role and/or obligations which
10 may be imposed upon PPL Electric in such circumstances. In summary, there is
11 significant uncertainty surrounding the provision related to micro-grids inasmuch
12 as that provision may impact PPL Electric’s service obligations and may
13 negatively impact the Company’s distribution revenues.

14
15 Q. Are there other provisions of the Strategy that concern the Company?

16 A. Yes. The Strategy also includes proposals that will require PPL Electric to
17 acquire a “portfolio of resources” to serve its default service load at “the lowest
18 reasonable rates on a long term basis and shall reflect a diversity of supply side
19 and demand side resources, a diversity of fuel types and a prudent mix of long
20 term, short term and spot market purchases.” In addition, the Commission’s
21 February 9, 2007 Advanced Notice of Final Rulemaking Order re: Electric
22 Distribution Companies’ Obligation to Serve Retail Customers at the Conclusion
23 of the Transition Period Pursuant to 66 Pa. C.S. §2807(e)(2) (“Default Service

1 Regulations”) also includes a requirement that PPL Electric’s default service
2 procurement plan must meet the default service obligations at the “lowest
3 reasonable long-term costs.” In my opinion, these provisions raise several
4 concerns because neither the Commission’s Default Service regulations nor the
5 Strategy include definitions of “lowest reasonable rates” or “lowest reasonable
6 long-term costs.” Further, to evaluate whether these provisions have been
7 satisfied would likely require an after-the-fact-review of PPL Electric’s
8 procurement plan which could create significant uncertainty as default service
9 plans are developed and implemented

10
11 Q. Do the Commission’s proposed regulations create uncertainty in other areas?

12 A. Yes. Draft Default Service regulations also state that a default service provider
13 (“DSP”) must acquire generation supply through a competitive bid solicitation
14 process, spot market energy purchases, or a combination of both. However, the
15 draft regulations provide that the Commission will “not certify or otherwise
16 approve or disapprove” a DSP’s spot market energy purchases as part of a
17 procurement plan. This provision could create significant uncertainty as DSPs
18 develop procurement plans and could discourage DSPs from buying on the spot
19 market.

20 The Commission’s Default Service regulations also state that it may
21 initiate an investigation “regarding the DSP’s implementation of its default service
22 program” and order lawful and appropriate remedies. However, the scope of
23 such investigations is undefined. If the proceeding goes beyond whether the

1 DSP properly implemented its approved plan, the investigation could amount to
2 an after-the-fact prudence review. PPL Electric is concerned that such a review
3 could lead to a disallowance of costs that were incurred pursuant to an approved
4 plan, but which were higher than originally anticipated. Further, any after-the-fact
5 prudence review would move PPL Electric away from a market based acquisition
6 structure back to a prudence review of purchasing strategy. Implementation of a
7 prudence review as a condition for recovery of costs would raise significant
8 concerns that PPL Electric could face risks of cost disallowances.

9
10 Q. Returning to the Governor's Strategy, please discuss your remaining concerns
11 with that Strategy as it relates to the Company.

12 A. The Governor's Strategy also would require PPL Electric to offer to customers
13 time of use rates, first on a pilot basis, and subsequently for all customers on a
14 voluntary basis. While PPL Electric has been and continues to make
15 investments to provide customers with more information about their usage, the
16 additional investments that may be required to offer such programs and the
17 manner in which such costs will be collected is undetermined.

18 Finally, the Governor's Strategy requires that Electric Distribution
19 Companies ("EDCs"), like PPL Electric, offer customers a phase-in period of up
20 to three years for any generation rate increases resulting at the end of the
21 existing generation rate caps. Again, this provision raises significant uncertainty
22 for PPL Electric going forward as the proposal raises the possibility of under-
23 recovery of costs. Specifically, the Strategy does not address whether PPL

1 Electric will be permitted to recover deferred costs associated with customers
2 leaving PPL Electric's system during the phase-in period. Further, the Strategy
3 does not address how, or even if, the recovery of carrying costs on any deferred
4 payments will be permitted.

5
6 Q. Are you suggesting that these provisions of the Governor's Strategy will be
7 enacted into law?

8 A. I cannot predict what will be enacted. The point that I am making is that
9 concerns about micro-grids create uncertainty regarding the Company's future
10 revenues and the possibility of revenue erosion. Similarly, concerns about
11 increasing electric prices and undefined rules relating to the procurement of
12 energy to serve default service customers create uncertainty regarding PPL
13 Electric's ability to recover its default service costs on a full and current basis.

14
15 Q. How are these additional risks you have identified relevant to this proceeding?

16 A. These risks are relevant to the Commission's deliberations regarding an
17 appropriate return on equity that should be allowed in this case. Both Mr. Moul
18 and Ms. Cannell testify that the risks a utility faces and the investment
19 community's perception of those risks should be considered by the Commission
20 when it reviews rate of return issues. In this portion of my testimony, I am simply
21 identifying risks and uncertainties facing PPL Electric that the Commission might
22 not otherwise appreciate.

1 **Allocation of the Revenue Increase**

2 Q. Are there general principles PPL Electric has followed in allocating the
3 distribution rate increase for this case?

4 A. Yes. The revenue increase was allocated based on two primary principles: cost
5 of service and gradualism. In addition, the proposed increase was significantly
6 influenced by the Commonwealth Court's decision in the Lloyd case, where the
7 Court reviewed and vacated the distribution rate increase allocation approved by
8 the Commission in the Company's most recent rate proceeding.

9 By way of background, PPL Electric historically has allocated revenue
10 increases based on the results of a class cost of service study, with a goal of
11 moving the return of each rate schedule toward the system average return on a
12 relative rate of return basis. These allocations always were subject to the
13 principle of gradualism in order to avoid disparate increases to particular rate
14 schedules. In its 2004 rate case, PPL Electric allocated the proposed revenue
15 increase in a way that moved each rate schedule toward the system average
16 return, with the constraint that no rate schedule receive an increase of more than
17 10% on a total bill basis, i.e., generation, transmission, CTC, ITC and distribution
18 rates. The Commission approved this approach, but it was rejected by the
19 Commonwealth Court. Specifically, the Court held that it was not appropriate to
20 consider total bill impact in allocating a distribution rate increase, and that the
21 Company had incorrectly allowed the principle of gradualism to "trump" all other
22 considerations, particularly cost of service, which the Court described as the
23 "polestar" for rate design issues. The Court then remanded the case to the

1 Commission for further consideration. That matter is now pending before the
2 Commission, as I will describe in more detail below.

3
4 Q. How has the Company reflected the Court's decision in this proceeding?

5 A. The Company has reflected that decision in two ways. First, the Company has
6 not relied on total bill impacts in allocating the revenue increase. Second, it has
7 not used gradualism to "trump" all other considerations, including cost of service.
8 Rather, the Company has developed a revenue allocation proposal that reflects
9 an appropriate consideration and balancing of both cost of service and
10 gradualism, and is part of an overall plan to move all rate schedules to cost of
11 service over a specified and reasonable period of time.

12
13 Q. Please describe how the Company proposes to allocate the distribution rate
14 increase in this proceeding.

15 A. PPL Electric has allocated the increase in a way that is designed to move each
16 rate schedule one-half of the way to full cost of service, with the constraint that
17 no rate schedule would receive a distribution rate increase of more than twice the
18 system average distribution increase, determined on a percentage basis. In its
19 next rate case, the Company will attempt to move all rate schedules to full cost of
20 service, with the caveat that it may take somewhat longer for certain rate
21 schedules to reach full cost of service. The Company believes that this approach
22 is fully consistent with the Lloyd decision, because it has not relied on total bill

1 impacts and because it has a specific plan to move all rate schedules to cost of
2 service over a reasonable period of time.

3
4 Q. Can you identify the impact of this proposed approach on each of the Company's
5 rate schedules?

6 A. Mr. Kasper discusses the specific customer impacts in his direct testimony and
7 attaches a schedule to his testimony that sets forth those impacts in detail.

8
9 Q. What is the relationship of the revenue allocation in this case with the remand
10 proceeding in the Company's 2004 rate case?

11 A. As I explained above, the 2004 case was remanded to the Commission for
12 further proceedings. A pre-hearing conference has been held and a schedule
13 has been established under which the Company will file a remand plan with the
14 Administrative Law Judge on April 13. Other parties will have an opportunity to
15 respond and hearings will be held on the Company's plan. A Commission
16 decision is anticipated before the end of 2007.

17 The Company has used the rates as established in the 2004 proceeding,
18 excluding the cost of Hurricane Isabel, which was rejected by the Court, as a
19 starting point to measure the movement toward cost of service. If the
20 Commission disagrees and revises the revenue allocation from the 2004 case,
21 the starting point for analysis in this case obviously would be changed. Under
22 those circumstances, PPL Electric would seek to apply the same principles to the
23 new starting point, i.e., establish a revenue allocation that moves rate classes

1 one-half of the way toward system average return, with the constraint that no rate
2 schedule receive a distribution rate increase greater than two times the system
3 average distribution increase.

4 Similarly, in the 2004 rate proceeding, the Commission did not specifically
5 adopt the Company's or any other parties' proposed cost of service study. The
6 revenue allocations proposed in this case are based on the Company's cost of
7 service study. If the Commission adopts a different cost of service study, this
8 also would change the starting point for the analysis and could change the
9 revenue allocation as well.

10
11 Q. Did PPL Electric examine the movement toward cost of service that was
12 accomplished in the compliance filing in the 2004 rate case?

13 A. Yes. PPL Electric has examined the compliance filing distribution rates approved
14 by the Commission and has determined that, in general, the rates approved by
15 the Commission moved all rate classes at least one-third of the way toward full
16 cost of service on a relative rate of return basis. Mr. Kasper discusses these
17 findings in his direct testimony and attaches a schedule to his testimony that sets
18 forth these impacts in detail.

19
20 Q. Do you have any concluding remarks on this subject?

21 A. Yes. I believe that it is important for the parties, the Administrative Law Judge
22 and the Commission to keep the following points in mind when reviewing PPL
23 Electric's revenue allocation proposals. First, as this Commission has often

1 recognized, cost of service studies are not an exact science. They are more
2 appropriately characterized as "engineering art". There is no one "right" way to
3 do these studies, and as a result, there is no one definitive cost of service which
4 would allow us to say with precision that rates are or are not exactly set at "cost
5 of service." Second, and very importantly, PPL Electric's rates have not been
6 based on cost of service in the past. For many years, individual rates have been
7 below and above cost of service. This has extended continuously at least back
8 to 1980. Given that rates have not reflected cost of service for almost 30 years, it
9 is clearly reasonable to move them to cost of service over a period of time. The
10 Company has moved all major rate schedules half-way to cost of service in this
11 case and believes that it can move most, if not all, rate schedules to full cost of
12 service either in its next rate case or one more case thereafter. This is clearly
13 reasonable given the historic facts outlined above.

14

15 Q. Does this conclude your direct testimony?

16 A. Yes, it does.

Exhibit DAK-1

**2007-2011 Capital Budget
Electric Utilities and Facilities Management**

<u>Electric Utilities</u>	Millions of Dollars					Total for 2007-11
	2007	2008	2009	2010	2011	
Provide Electric Service	\$89.2	\$92.7	\$96.6	\$102.0	\$108.5	\$489.0
Upgrade System Facilities	13.2	13.5	18.7	20.2	21.0	86.6
Assure System Reliability	43.1	42.4	42.9	44.8	47.0	220.2
Revenue Cycle Service	5.9	5.0	5.1	5.2	5.3	26.5
Information Technologies	11.3	5.9	4.0	4.0	4.0	29.2
Vehicles	17.3	18.4	19.8	21.4	23.2	100.1
Other	4.0	3.5	3.5	6.0	8.5	25.5
Respond to Customer	12.0	13.0	13.0	13.5	14.3	65.8
<u>Total Electric Utilities</u>	\$196.0	\$194.4	\$203.6	\$217.1	\$231.8	\$1042.9
<u>Facilities Management</u>	\$14.8	\$10.5	\$8.1	\$7.8	\$12.4	\$53.6
<u>TOTAL</u>	\$210.8	\$204.9	\$211.7	\$224.9	\$244.2	\$1096.5

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

2007 MAR 29 PM 12:54
SECRETARY'S BUREAU

Docket No. R-00072155

PPL Electric Utilities Corporation

Statement No. 6

Direct Testimony of Joseph M. Kleha

1 **Direct Testimony of Joseph M. Kleha**

2 Q. Please state your full name and business address.

3 A. Joseph M. Kleha, Two North Ninth Street, Allentown, Pennsylvania, 18101.

4

5 Q. By whom are you employed and in what capacity?

6 A. I am employed by PPL Services Corporation ("PPL Services"), a subsidiary of
7 PPL Corporation, in the Office of General Counsel as Manager - Regulatory
8 Projects.

9

10 Q. What are your duties as Manager - Regulatory Projects?

11 A. I am responsible for overseeing corporate projects involving regulatory
12 agencies on behalf of PPL Corporation's subsidiaries, including PPL Electric
13 Utilities Corporation ("PPL Electric"); PPL Gas Utilities Corporation ("PPL
14 Gas"); PPL EnergyPlus, LLC ("PPL EnergyPlus"); and the PPL Generation
15 family of companies. As part of this function, I review and provide technical
16 oversight and guidance on the development, content and structure of cost
17 allocation and revenue requirements studies. I also prepare and present
18 expert testimony regarding these studies.

19

20 Q. What is your educational background?

21 A. I graduated from The Pennsylvania State University in May 1974 with a
22 Bachelor of Science Degree in Accounting. Since that time, I have taken

1 specialized courses dealing with public utility accounting, depreciation and rate
2 design. In addition, I attended the NARUC Regulatory Studies Program.

3
4 Q. Please describe your professional experience.

5 A. I was employed by the Pennsylvania Department of Public Welfare as Field
6 Auditor and Institutional Collections Officer from 1974 to 1977. In 1977, I
7 joined the technical staff of the Pennsylvania Public Utility Commission
8 ("PUC") as a Utility Rate Analyst in its Bureau of Rates and Research. In this
9 position, my responsibilities included review of proposed retail electric rate
10 filings, and the preparation and presentation of testimony in formal rate
11 proceedings. This testimony primarily dealt with the allowable levels and
12 jurisdictional allocations of claimed operating revenues, operating expenses,
13 and rate base. In 1981, I joined PPL Electric as a Senior Accountant with
14 responsibility for assembling financial data and preparing revenue requirement
15 studies to support its retail and wholesale rate filings. I was named Manager -
16 Regulatory Projects in PPL Electric's Office of General Counsel in 1990. In
17 2000, as part of a corporate realignment, I became an employee of PPL
18 Services along with the other employees in the Office of General Counsel.

19
20 Q. Have you previously testified as a witness on cost-of-service and ratemaking-
21 related issues?

22 A. Yes, I have testified in numerous proceedings regarding cost-of-service and
23 ratemaking-related issues. See Appendix A for a list of those proceedings.

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23

Q. Mr. Kleha, briefly describe the subject matter of your testimony in this proceeding.

A. My testimony and accompanying exhibits describe and support PPL Electric's calculation of certain ratemaking adjustments to the historic test year and future test year retail rate base, operating revenues and operating expenses; the development of the cost allocation studies which form the basis for proposed retail rates; the determination of jurisdictional investment and expense (capital and operating costs) and revenue requirements, and the derivation of the retail cost of providing distribution service by customer rate class.

Q. Mr. Kleha, are you sponsoring any exhibits in this proceeding?

A. I am sponsoring Exhibits JMK 1, JMK 2 and JMK 3. I also am sponsoring portions of Exhibit Regs., Part 1-General Information, Part II-Primary Statements of Rate Base and Operating Income, Part IV-Rate Structure and Cost Allocation, and Part V-Plant and Depreciation Supporting Data, Including Related Depreciation Study Report.

Exhibits Historic 1 and Future 1

Q. Are you sponsoring any schedules in Exhibits Historic 1 and Future 1?

A. Yes. I am sponsoring the following: Schedules C-1, C-4, C-6, D-1, D-2, D-6, D-12, D-13, D-14 and D-15 of Exhibits Historic 1 and Future 1.

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Q. Schedules C-4 of Exhibits Historic 1 and Future 1 show details of PPL Electric's claim for cash working capital. Would you explain these schedules?

A. Schedules C-4 of Exhibits Historic 1 and Future 1 are computations of PPL Electric's average investment in cash working capital. There are five major components in this computation: cash working capital required for operation and maintenance expenses; funds invested in prepayments; an adjustment for accrued taxes; an adjustment for interest payments; and an adjustment for preferred dividend payments.

Q. Would you explain these five components?

A. Page 2 of Schedules C-4 shows the first component, which is cash working capital required for operation and maintenance expenses. PPL Electric bills all of its customers once every month, but the due date for payment varies between 15 and 30 days from the billing date. On this basis, there is a considerable span of days between the time electricity is furnished to a customer and the time the customer pays for such electricity. This span averages 34 days for customers with 15-day due dates, 57 days for customers with 20-day due dates, and 38 days for customers with 30-day due dates. The average lag in receipt of revenues from all these sources is 45.2 days on a dollar-weighted basis.

In most instances, PPL Electric must pay its bills for payroll, employee benefits, support group costs and other operating expenses prior to the time it

1 is able to collect the amount due for the service giving rise to these expenses.
2 PPL Electric has examined its records to determine, as to the major categories
3 of expense, the average span of days between the time an expense is
4 incurred and the time it must be paid. On page 2 of Schedule C-4 of Exhibit
5 Historic 1, the average span of days for major categories of expense is shown.
6 This lag ranges from 12 days to 40 days for various types of costs. The
7 overall average for all expenses is 34.5 days. Thus, the average net lag
8 between the payment of expenses and the receipt of the related revenue is
9 10.7 days (45.2 days less 34.5 days). To cover its expenses and continue to
10 conduct its business during this time lag, PPL Electric must provide a cash
11 investment.

12 The second major component of cash working capital is made up of
13 funds which are invested in prepayments. This amount is shown on page 3 of
14 Schedules C-4. In conducting its electric business, PPL Electric must pay
15 certain costs prior to the time such items are properly charged to expense for
16 accounting and ratemaking purposes. For example, the PUC's annual
17 assessment must be prepaid, but is expensed monthly over the period to
18 which it applies. Costs of this nature initially are charged to FERC Account
19 165, Prepayments, and subsequently are charged to expense from this
20 account.

21 The claim for prepaid expenses is based on the 13-month average of
22 the various items included in Account 165. This amount has been claimed as

1: a component of cash working capital for both the historic test year and future
2: test year.

3: The third major component of cash working capital is the adjustment for
4: accrued taxes, which is shown in detail on page 4 of Schedules C-4. In the
5: case of Federal income tax, estimated payments must be made on April, June,
6: September and December 15 of the year to which the tax is applicable.

7: Because revenues are collected from customers monthly, there are funds
8: temporarily available for payment of other costs. PPL Electric's computations
9: indicate that funds available from this source average 3.82% of the federal
10: income tax due.

11: Presently, the Pennsylvania income tax and Pennsylvania Capital Stock
12: Tax have the following pattern of required estimated payments:

- 13: • 25% on March 15
- 14: • 25% on June 15
- 15: • 25% on September 15
- 16: • 25% on December 15

17: PPL Electric's computations indicate that the funds available from these taxes
18: average 1.74% of the tax due.

19: The Pennsylvania gross receipts tax must be paid on an estimated
20: basis by March 15 of the year to which the tax is applicable. Because revenue
21: is collected from customers monthly, funds must be provided by investors to
22: pay these taxes prior to the collection revenues from customers. PPL
23: Electric's computations indicate that the funds which must be provided for this

1 purpose average 35.76% of the tax due. This adjustment is based on the total
2 Pennsylvania gross receipts tax which must be paid at the 59 mill rate actually
3 in effect.

4 The Pennsylvania Public Utility Realty Tax must be paid on an
5 estimated basis by May 1 of the year to which the tax is applicable. Because
6 revenue is collected from customers monthly, funds must be provided by
7 investors to pay these taxes prior to the collection from customers. PPL
8 Electric's computations indicate that funds which must be provided for this
9 purpose average 23.26% of the tax due.

10 The net effect of these various accrued tax adjustments is an increase
11 in PPL Electric's cash working capital requirement as shown on page 4 of
12 Schedules C-4.

13 The fourth and fifth components of cash working capital are offsetting
14 adjustments for the funds applicable to debt interest payments and preferred
15 stock dividend payments, which are shown on pages 5 and 6 of Schedules
16 C-4. PPL Electric "theoretically" has unrestricted use of these funds from the
17 time of the monthly collection from customers until the payment of interest and
18 dividends on a semi-annual or quarterly basis. PPL Electric does not agree
19 with the appropriateness of such a reduction to the Measures of Value.
20 However, this adjustment has been made in order to facilitate the adjudication
21 of this filing and in compliance with the Commission's current policy.

22
23 Q. What is shown on Schedules C-6 of Exhibits Historic 1 and Future 1?

1 A. Schedules C-6 of Exhibits Historic 1 and Future 1 reflect the balances in
2 deferred taxes at the end of the respective test years, including the tax
3 deferrals related to the Accelerated Cost Recovery System ("ACRS"). This
4 legislation provides for mandatory normalization of tax benefits on post-1980
5 property. PPL Electric has claimed only federal income tax normalization in
6 this filing.

7
8 Q. Why aren't Accumulated Deferred Investment Tax Credits (FERC Account
9 255) reflected in the computation of the Measures of Value?

10 A. Under provisions of the Revenue Act of 1971, public utilities were afforded the
11 option of treating the investment tax credit in rate proceedings by reducing
12 taxes over the life of the property and not deducting the accumulated amount
13 of the credit from the Measures of Value.

14 On March 8, 1972, PPL Electric made this election as provided for
15 under the Internal Revenue Code, Section 46(e), Paragraph (2), and, in
16 compliance therewith, has not reduced the Measures of Value for the purpose
17 of these proceedings. Such credits are, however, being amortized as a credit
18 to operating expense over the life of the related property.
19

20 Q. Please explain the "Adjustment to Taxes Other Than Income Taxes" shown on
21 Schedules D-12 for both the historic and future test years.

22 A. In order to derive the current level of Pennsylvania Capital Stock Tax, the
23 valuation method used by the Pennsylvania Department of Revenue was
24 utilized. This results in an estimated valuation at December 31, 2006 and

1: December 31, 2007. The 4.89 mill tax rate is applied to the valuation to derive
2: the total capital stock tax liability at December 31, 2006 under present rates.

3: The 3.89 mill tax rate is applied to the valuation to derive the total capital stock
4: tax liability at December 31, 2007 under present rates. This portion of the
5: computation is set forth on Schedules D-12, page 2. From this amount is
6: deducted the capital stock tax expense per books for the 12 months ended
7: December 31, 2006, and the expense per budget for the 12 months ending
8: December 31, 2007. This adjustment reflects both the current taxable
9: valuation and the applicable tax rates.

10
11 Q. Please explain the Pennsylvania Gross Receipts Tax shown on Schedules
12 D-12.

13 A. The adjustment to Pennsylvania Gross Receipts Tax is shown on Schedules
14 D-12, page 3. This adjustment reflects the gross receipts tax liability changes
15 which will result from base rate revenues generated by the annualization of
16 sales under present rates.

17
18 Q. Please explain the adjustment for Pennsylvania Public Utility Realty Tax.

19 A. The Pennsylvania Public Utility Realty Tax is developed under present rates
20 based on the plant in service at December 31, 2006 and projected to be in
21 service at December 31, 2007. From this amount is deducted the tax expense
22 per books for the 12 months ended December 31, 2006, and the tax expense
23 per budget for the 12 months ending December 31, 2007.

1
2 Q. Please explain the adjustment of federal and state income taxes, shown on
3 Schedules D-13 for both test years.

4 A. Schedules D-13 show, in column 1, the tax computation as recorded for the 12
5 months ended December 31, 2006, and as budgeted for the 12 months ending
6 December 31, 2007. Column 2 shows adjustments required to exclude
7 revenues, expenses and income tax adjustments associated with Provider of
8 Last Resort ("POLR") service and the recovery of stranded costs through the
9 Competitive Transition Charge ("CTC"). Column 3 shows the derivation of the
10 revenues, expenses and tax adjustments for PPL Electric's combined
11 transmission and distribution ("T&D") operations only. Column 4 shows the
12 various adjustments for a proper computation of taxable income on a pro
13 forma basis at present rates. Column 5 shows the pro forma income tax
14 computation at present rates.

15 Taxable income and the tax computations are adjusted in Column 4 for
16 the following reasons:

- 17 • To reflect the effect on taxable income of adjustments to revenue
18 and expense set forth on Schedules D-2 and to reflect other
19 changes in taxable income.
- 20 • To eliminate the effect prior year tax adjustments and provisions for
21 possible tax deficiencies recorded on the books for the 12 months
22 ended December 31, 2006, or reflected in the budget for the 12
23 months ending December 31, 2007.

- To reflect the effect of a consolidated tax savings adjustment.

Q. Are there several tax adjustments upon which you wish to elaborate?

A. Yes. They are the following:

Tax Depreciation

In general, depreciation for tax purposes must be computed using the tax basis of the property (which generally is lower than book basis) and using various depreciation methods and rates which differ from those used in computing book depreciation.

In computing tax depreciation, this filing has paralleled the methods used in PPL Electric's federal and Pennsylvania income tax returns. That is, for property acquired prior to 1981, where permitted, PPL Electric has used the declining balance method of depreciation with the 20% shorter lives permitted by the Class Life Depreciation System (commonly referred to as "ADR"). The Revenue Act of 1971 introduced ADR which permitted shortening or lengthening depreciable lives as much as 20% for tax purposes. For post-1980 property, the tax depreciation is based on the Accelerated Cost Recovery System ("ACRS") as provided for in the Economic Recovery Tax Act of 1981.

Annualized Interest

This adjustment is the result of normalizing the interest deduction based on the test year measures of value, as shown on Schedules D-13, page 3. Because ratepayers pay a return on only these measures of value, it is only

1 the interest associated with these measures of value that applies to PPL
2 Electric's T&D operations for ratemaking purposes.

3
4 Q. Please summarize the effects of these tax adjustments.

5 A. Recognition of all tax adjustments reflected on Schedules D-13 results in a net
6 decrease in taxable income for the historic and future test years. Taxable
7 income is the basis for computing both federal and Pennsylvania income
8 taxes.

9 The actual Pennsylvania Corporate Net Income Tax rate is 9.99%. The
10 federal income tax is computed at the current 35% tax rate. For federal
11 income tax purposes, the amount of Pennsylvania income tax is an allowable
12 deduction. Details of the computations of all taxes incurred as a result of the
13 proposed revenue increase are shown on Schedules D-13, page 5.

14
15 Consolidated Tax Savings

16 Q. Has PPL Electric proposed a consolidated tax savings adjustment in this
17 proceeding?

18 A. Yes, it has proposed a consolidated tax savings adjustment.

19
20 Q. What are your views on allocating the tax savings of unregulated affiliate
21 company tax losses to utility operations for the purposes of setting the level of
22 electric distribution service rates?

1 A. In general, the allocation of tax loss deductions of unregulated affiliate
2 companies to the utility business is contrary to sound ratemaking principles.
3 One of those principles is that a utility's revenue requirement and the
4 associated customer rates should be established on the basis of the utility's
5 normal, ongoing operations on a stand-alone basis.

6 When none of the risks of the unregulated entities are assumed by the
7 customers of the regulated utility, neither the Commission nor the Courts
8 should have the ability to appropriate the losses generated in those
9 unregulated entities to reduce the utility's cost of service. When losses do
10 occur, for whatever reason, the consolidated tax return should afford some
11 relief to the entities incurring the tax losses in the current period.

12 To deprive the unregulated affiliate of a business-loss tax deduction is
13 to take away a valuable property right belonging to that entity, and represents
14 a use of unregulated assets for regulated purposes. To base the revenue
15 requirement and associated rates of a utility on the tax losses of affiliates,
16 which vary from one year to the next as the activities of a diversified group of
17 affiliate companies fluctuate, certainly is contrary to the sound ratemaking
18 principles regarding the separation of regulated and unregulated operations
19 (investment, revenues and expenses), and the normalization of a utility's test
20 year operations (revenues and expenses, including taxes) for purposes of
21 establishing the utility's normal and ongoing revenue requirement.

22 Despite this philosophical disagreement, I recognize that the
23 Commission has adopted consolidated tax savings adjustments in other

1 proceedings and the Pennsylvania Supreme Court has mandated this
2 approach. Accordingly, PPL Electric has proposed an adjustment in this
3 proceeding.

4
5 Q. How has PPL Electric determined its consolidated tax savings adjustment in
6 this proceeding?

7 A. As shown on page 4 of Schedules D-13, PPL Electric has based its calculation
8 of this adjustment on a 3-year average of the consolidated tax savings
9 generated by PPL Corporation, PPL Electric's parent company, and its
10 unregulated subsidiaries over the most recently available tax years, 2004
11 through 2006. The rationale for using the filed returns for this 3-year period to
12 calculate the tax savings amount generated by the "tax loss" affiliates, and
13 PPL Electric's proportionate share of those savings, is to provide an average
14 level of consolidated tax savings as the starting point for calculating the
15 adjustment.

16
17 Q. Has PPL Electric made any adjustments to the taxable income data
18 associated with its "tax loss" affiliates for this 3-year period?

19 A. Yes. In order to determine the proper level of affiliate tax losses, PPL Electric
20 excluded from its calculations the non-recurring items which contributed to
21 those affiliate losses. In accordance with Commission practice and precedent,
22 non-recurring items should be excluded from the calculation of future test year
23 income tax expense, and consolidated tax savings adjustments thereto. A

1 significant portion of the tax losses incurred by PPL Electric's affiliate, PPL
2 Energy Funding Corporation, were due to the following non-recurring items.

3 (1) Non-recurring bonus tax depreciation – The Internal Revenue Code
4 allowed a 30-50% tax depreciation deduction for property placed into
5 service prior to January 1, 2005. This provision of the Code has expired.

6 (2) One-time losses resulting from the sale of gas-fired turbines and other
7 investments, mineral rights transferred to DEP and clean-up costs – The
8 losses associated with the sale of specific assets or business units are,
9 by definition, non-recurring. Such dispositions are not part of the
10 affiliate's ordinary, day-to-day business operations and are not properly
11 includible in ongoing operations. The clean-up costs for the ash basin
12 leak were incurred in connection with an isolated incident that previously
13 was not experienced and is not expected to recur.

14 (3) Losses from discontinued operations – The assets of both PPL
15 Sundance and the partnership interest in Southwest Power Partners
16 were sold. The losses associated with the sale of these assets, by
17 definition, are non-recurring.

18 (4) Losses from synfuel operations – A partnership interest in two facilities
19 that produce synfuel is being phased out and permanently shut down.
20 These losses will not recur.

21 In addition, PPL Electric adjusted its taxable income for the 3-year period 2004
22 through 2006 to eliminate that portion of taxable income associated with its

1 non-regulated subsidiaries, as well as non-recurring items, e.g., bonus tax
2 depreciation.

3
4 Q. Please explain Schedules D-14, "Adjustments to Deferred Income Taxes," for
5 both test years.

6 A. Normally, deferred taxes arise in connection with expenses which, for various
7 reasons, are recorded on the books as an expense in a different year than the
8 same item is allowed as an income tax deduction. This is referred to as a
9 book/tax timing difference. Generally accepted accounting principles
10 ("GAAP"), which are prescribed by the Financial Accounting Standards Board
11 ("FASB"), require that the tax savings related to an expense item be recorded
12 on the books at the same time as the expense item is recorded. For example,
13 if the expense item is booked in a year after its deductibility for tax purposes, a
14 deferred tax charge is recorded on the income statement and a liability for
15 such tax is recorded on the balance sheet in the year the tax deduction
16 occurs. The same basic principle applies to revenue items, as well as
17 expense items.

18 Schedules D-14 show the normalization of the net deferrals recorded
19 on the books for the 12 months ended December 31, 2006, and as budgeted
20 for the 12 months ending December 31, 2007.

21 It should be noted that for the year ended December 31, 2006, and the
22 year ending December 31, 2007, the specific items covered by deferred taxes
23 all arise in connection with timing differences, as discussed above. Certain

1 items require adjustment for purposes of this rate filing. The major adjustment
2 in the historic and future test years relates to the ACRS system of tax
3 depreciation, as set forth on Schedules D-14, page 2.

4 Regarding Schedules D-14, PPL Electric uses ACRS in computing tax
5 depreciation on post-1980 property additions. Schedules D-14 reflect an
6 adjustment for the mandatory deferral of the federal tax effects of ACRS based
7 on the tax plant balances at December 31, 2006 and December 31, 2007.

8
9 Q. Was the Pennsylvania state income tax effect of ACRS normalized and
10 claimed in these proceedings?

11 A. No. In accordance with this Commission's policy, it was not.

12
13 Q. Please explain Schedules D-15.

14 A. Schedules D-15 adjust the amortization of the investment tax credit to reflect a
15 full year's amortization based on the unamortized investment tax credit
16 remaining at December 31, 2006 and December 31, 2007, respectively.

17
18 Exhibits JMK 1, JMK 2 and JMK 3

19 Q. Please explain how PPL Electric's Pennsylvania jurisdictional costs are
20 derived.

21 A. This filing is based on the investment and expense incurred to provide
22 distribution service to PPL Electric's Pennsylvania jurisdictional customers.

23 Accordingly, PPL Electric's historic test year per books and future test year per

1. budget delivery service operating results are adjusted to eliminate all revenues
2 and expenses associated with the generation function, namely POLR service
3 and the recovery of stranded costs through the CTC, which was approved by
4 the Commission in PPL Electric's restructuring proceeding at Docket
5 No. R-00973954, to derive the combined T&D operations. T&D investment
6 and expense are then allocated between the Federal (transmission) and
7 Pennsylvania (retail distribution) jurisdictions. Exhibits JMK 1 and JMK 2
8 provide specific details regarding the allocation of those costs and the
9 determination of the Pennsylvania jurisdictional distribution service revenue
10 requirements on a system and rate class basis.

11
12 Q. Would you briefly describe the contents of Exhibits JMK 1 and JMK 2?

13 A. Exhibits JMK 1 and JMK 2 respond to Question 1 of Exhibit Regs., Part IV,
14 Section E, and present fully distributed Pennsylvania jurisdictional costs of
15 providing retail distribution service to the various rate classes at both present
16 and proposed rates. The studies contained in Exhibit JMK 1 are based on
17 costs and operating conditions for the historic test year ended December 31,
18 2006. The studies contained in Exhibit JMK 2 are based on costs and
19 operating conditions for the future test year ending December 31, 2007. The
20 objective has been to make each exhibit a self-contained document. Each
21 exhibit provides a summary of the results, a printout of the cost allocation
22 detail, and supporting schedules showing functionalization of the costs and
23 support for the cost allocation factors used. Explanatory material with regard

1 to methods employed and cross-referencing to Exhibits Historic 1 and Future
2 1, as applicable, also are included.

3
4 Q. What cost allocation method was utilized in your studies?

5 A. The cost allocation studies, which are set forth in Exhibits JMK 1 and JMK 2,
6 generally follow the same principles utilized by PPL Electric for almost thirty
7 years, including in its restructuring filing at Docket No. R-00973954 and its
8 most recent base rate case at Docket No. R-00949255. That is, PPL Electric
9 continues to utilize the class maximum demand method, which is based on the
10 highest demand imposed by each rate class on its distribution system, to
11 allocate its demand-related distribution costs. Section V of Exhibit JMK 1 and
12 Section VI of Exhibit JMK 2 present the results of studies using other demand
13 allocation methods, as required by Question 1 of Exhibit Regs., Part IV,
14 Section E.

15
16 Q. Please describe the distribution plant investment studies contained in Exhibit
17 JMK 3.

18 A. Exhibit JMK 3 contains the results of two studies: (1) the subfunctionalization
19 of distribution plant investment and expense into primary and secondary volt-
20 age components and the classification of the secondary components into
21 customer and demand-related costs, and (2) the development of allocators for
22 meter investment and meter reading expense, which are used in the historic
23 and future test year cost allocation studies provided in Exhibits JMK 1 and

1 JMK 2. It should be noted that the subfunctionalization and classification of
2 distribution plant investment and expense is based on a detailed analysis of
3 specific PPL Electric plant records and cost data. The methodologies
4 employed in the studies are explained in Exhibit JMK 3 and the results of
5 these studies are reflected in Sections A and B of Exhibits JMK 1 and JMK 2.

6
7 Q. In classifying its distribution plant investment and expense into customer and
8 demand-related costs, has PPL Electric used the same methodology as that
9 used in its last retail base rate case?

10 A. Yes. Consistent with the approach used in its most recent retail base rate
11 case, PPL Electric believes that it is appropriate to continue the use of the
12 "minimum size system" methodology to identify the applicable customer and
13 demand-related cost components to determine the current cost of the
14 "minimum size" distribution system necessary to provide reliable distribution
15 service to its customers.

16
17 Q. Has PPL Electric made any modifications to its "minimum size system"
18 methodology since its most recent base rate case at Docket No. R-00049255?

19 A. Yes, it has. In its most recent base rate proceeding, several parties criticized
20 PPL Electric's proposed "minimum size system" study based on the assertion
21 that a portion of the "minimum size" equipment classified as customer-related
22 in that study, e.g., overhead and underground transformers, had significant

1 load-carrying capability, which should have been classified as demand-related,
2 rather than customer-related.

3 In an effort to add more precision to the classification of distribution
4 facilities into their customer-related and demand-related components, PPL
5 Electric undertook a rigorous engineering analysis of the "minimum size"
6 overhead (10 KVA) and underground (25 KVA) transformers, which currently
7 are being installed on its system, to identify the customer-related "minimum or
8 no load" portion of that equipment. This analysis, which was based on the
9 Capitalized Cost Method, identifies the total "owning cost" for transformers that
10 consists of the cost of the transformer (canister, windings, bushings, etc.), the
11 cost of core (no load) losses, and the cost of load losses. The results of this
12 analysis, which have been applied to PPL Electric's overhead and
13 underground transformers, provide a more precise classification of those
14 facilities into their customer-related and demand-related components, as
15 shown in Exhibit JMK 3. Those results also have been applied to overhead
16 and underground conductors and services, as shown in Exhibit JMK 3.
17 Accordingly, only the "minimum or no load" portion of PPL Electric's overhead
18 and underground transformers, conductors and services have been classified
19 as customer-related in this proceeding; the remaining portion of those facilities
20 has been classified as demand-related.

21
22 Q. Please explain Section III of Exhibit JMK 3.

1 A. Section III of Exhibit JMK 3 provides the derivation of the proposed metering
2 and billing credits set forth in the Metering and Billing Credit Rider of PPL
3 Electric's Tariff-Electric Pa. P.U.C. No. 201 ("Tariff No. 201"). These credits
4 are applied to a customer's monthly distribution charges when an Electric
5 Generation Supplier ("EGS"), licensed by the Commission, provides metering,
6 meter reading and/or billing and collection service to a customer in lieu of PPL
7 Electric.

8 The credits were derived by determining the revenue requirement, by
9 rate schedule, for each individual service (metering, meter reading and/or
10 billing and collection) that could be provided to a PPL Electric customer by an
11 EGS. The revenue requirement calculations are based on the applicable pro
12 forma rate base and operating expenses for the 12 months ending
13 December 31, 2007, as set forth in Exhibit JMK 2.

14 The proposed credits, which are shown on page 1 of Section III of
15 Exhibit JMK 3, were aggregated into the following customer groups:
16 residential; all other secondary voltage level; primary voltage level; and
17 transmission voltage level.

18
19 Universal Service Rider

20 Q. Has PPL Electric proposed procedures to recover its universal service
21 program-related costs?

1 A. Yes. PPL Electric has proposed a mechanism and procedures to recover its
2 universal service program-related costs. The mechanism is designated the
3 Universal Service Rider ("USR").

4 Under the USR, PPL Electric will estimate the total costs it projects to
5 incur, on a calendar year basis, to provide universal service programs for all
6 eligible residential customers who receive distribution service from PPL
7 Electric. The computation year will be January 1 through December 31.

8 Universal service program-related costs will include all costs estimated
9 to be incurred by PPL Electric to provide universal service programs to its
10 eligible residential distribution service customers. These costs include, but are
11 not limited to, arrearage forgiveness, uncollectible accounts expense, and
12 administration. These estimated costs will be recovered from all residential
13 customers taking service under Rate Schedules RS, RTS and RTD on a
14 percentage basis to be added to their distribution service charges. The USR
15 will be reconciled at the end of each 12-month billing period to identify any
16 overcollections or undercollections, which will be subject to Commission
17 review and verification. Any applicable overcollections or undercollections,
18 including interest, will be included in the calculation of the subsequent
19 computation year's USR.

20
21 Energy Efficiency Rider

22 Q. Has PPL Electric proposed procedures to recover its energy efficiency
23 program-related costs?

1 A. Yes. PPL Electric has proposed a mechanism and procedures to recover its
2 energy efficiency program-related costs. The mechanism is designated the
3 Energy Efficiency Rider ("EER").

4 Under the EER, PPL Electric will estimate the total costs it projects to
5 incur, on a calendar year basis, to provide energy efficiency programs for all
6 eligible residential and small commercial customers who receive distribution
7 service from PPL Electric. The computation year will be January 1 through
8 December 31.

9 Energy efficiency program-related costs will include all costs to be
10 incurred by PPL Electric to provide energy efficiency programs to its eligible
11 residential and small commercial distribution service customers. These
12 estimated costs will be recovered from all residential and small commercial
13 customers taking service under Rate Schedules RS, RTS, RTD and GS-1 on a
14 percentage basis to be added to their distribution service charges. The EER
15 will be reconciled at the end of each 12-month billing period to identify any
16 overcollections or undercollections, which will be subject to Commission
17 review and verification. Any applicable overcollections or undercollections,
18 including interest, will be included in the calculation of the subsequent
19 computation year's EER.

20
21
22 Q. Does this conclude your direct testimony?

23 A. Yes, it does.

**Proceedings in Which Mr. Kleha
Provided Expert Testimony**

As an analyst in the PUC's former Bureau of Rates and Research, Mr. Kleha offered testimony in the following electric utility rate proceedings:

<u>Company</u>	<u>Docket No.</u>
Duquesne Light Company	R-79010740
UGI Corp. - Luzerne Division	R-79050863
Philadelphia Electric Company	R-79060865
West Penn Power Company	R-80021082
Pennsylvania Power & Light Co.	R-80031114
Metropolitan Edison Company	R-80051196
Pennsylvania Electric Company	R-80051197

As an employee of PPL Electric and PPL Services, Mr. Kleha has offered expert testimony in numerous electric and gas utility proceedings before the PUC and the Federal Energy Regulatory Commission ("FERC").

<u>PUC</u>	<u>FERC</u>
Docket No. I-900005	Docket No. ER88-545-000
Docket No. P-910521	Docket No. ER91-322-000
Docket No. M-00930406	Docket No. ER95-1267-000
Docket No. C-00935175	Docket No. ER96-930-000
Docket No. C-00935403	Docket No. ER96-931-000
Docket No. R-00943271	Docket No. ER96-932-000
Docket No. C-00957559	Docket No. ER96-933-000
Docket No. P-00961023	Docket No. ER96-1428-000
Docket No. C-00967591	Docket No. SC97-1-000
Docket No. C-00967955	Docket No. OA96-142-000
Docket No. C-00968035	Docket No. ER97-4829-000
Docket No. P-00961114	Docket No. ER97-3189-007
Docket No. R-00973954	Docket No. EL98-25-000
Docket No. P-00001789	Docket No. ER02-597-000
Docket No. M-FACE9908	Docket No. ER03-421-002
Docket No. R-00005277	Docket No. ER04-056-000
Docket No. M-FACE0008	
Docket No. M-FACE0111	
Docket No. R-00016850	
Docket No. M-FACE0212	
Docket No. M-FACE0311	
Docket No. R-00049255	
Docket No. M-FACE0411	
Docket No. M-FACE0510	
Docket No. M-FACE0511	
Docket No. P-00062227	
Docket No. M-FACE0611	
Docket No. M-FACE0612	

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

2007 MAR 29 PM 12:54
SECRETARY'S BUREAU

Docket No. R-00072155

PPL ELECTRIC UTILITIES CORPORATION

Statement No. 7

Direct Testimony of Oliver G. Kasper

1 Q. Please state your full name and business address.

2 A. Oliver G. Kasper, Two North Ninth Street, Allentown, Pennsylvania, 18101.

3

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by PPL Electric Utilities Corporation ("PPL Electric" or the
6 "Company") as Manager-Pricing and Contract Administration.

7

8 Q. What are your principal duties and responsibilities as Manager-Pricing and
9 Contract Administration?

10 A. I am responsible for Tariff Administration, which involves the development of PPL
11 Electric retail tariff rules and regulations, and ensuring their uniform administration
12 throughout the Company. I also direct the development of the Company's rate
13 design function and supervise the cost of service function.

14

15 Q. What is your educational background?

16 A. I graduated from Michigan Technological University in 1973 with a Bachelor of
17 Mechanical Engineering. I am a Registered Professional Engineer in the
18 Commonwealth of Pennsylvania.

19

20 Q. Please describe your professional experience.

21 A. I was employed by Westinghouse Electric Corporation in 1973 and served in the
22 Marketing Department of the Steam Turbine Division as an Application Engineer.
23 During this period, I was involved with all aspects of the initial design and proposal

1 preparation for large steam turbine generator sets. I also was the technical license
2 contact for two foreign manufacturers of Westinghouse turbine generators.

3 In 1976, I joined PPL Electric as a construction engineer for the
4 Susquehanna Steam Electric Station. In this position I was responsible for long-
5 term storage and maintenance for all equipment during construction, and assembly
6 of the Unit 1 and Unit 2 turbine generator sets.

7 In 1978, I was named Energy Management Engineer in PPL Electric's
8 Energy Conservation Department in the former Northern Division. My
9 responsibilities included energy conservation, service coordination, and marketing
10 with PPL's large industrial and commercial customers in that division.

11 In 1982, I was promoted to Senior Engineer-Research and Technical
12 Services; later the department was renamed Industrial and Commercial (I&C)
13 Marketing Programs. My responsibilities included residential thermal storage
14 heating systems research, commercial and industrial HVAC and process
15 heating/cooling applications, research and development, commercial and industrial
16 lighting design, and educating PPL Electric's staff and customers about
17 cogeneration.

18 In 1989, I was promoted to the position of I&C Marketing Manager in PPL
19 Electric's Lancaster Division. My responsibilities included managing a staff that
20 provided direct service and marketing contacts for all industrial and commercial
21 customers in that Division. I was promoted to Manager-Pricing and Contract
22 Administration in 1991, the position I now hold.

1 In my current position, I have been the Company's primary witness in the
2 rate design and tariff language areas for both electric and gas service before the
3 Pennsylvania Public Utility Commission ("PUC" or the "Commission"). I provided
4 testimony in the 1994 base rate case (Docket No. R-00943271), the 1998 Electric
5 Restructuring Case (Docket No. R-00973954), and the 2004 base rate case
6 (Docket No. R-00049255). I also have appeared as a witness in several formal
7 complaint actions by customers involving interruptible service.

8 For PFG Gas, Inc./North Penn Gas Company, I provided rate design and
9 tariff language support for their annual Purchased Gas Clause filings (Section
10 1307(f)) in 1999 through 2002. I also provided written testimony and rate design in
11 the PFG Gas, Inc./North Penn Gas Company base rate case in 2001 (Docket No.
12 R-00005277).

13 In 2002, I provided rate design and written testimony before the Federal
14 Energy Regulatory Commission (FERC Docket No. ER02-597-000) regarding
15 changes to the PJM OATT for certain sub-transmission charges.
16

17 Q. Mr. Kasper, are you sponsoring any exhibits in this proceeding?

18 A. Yes. I am sponsoring Exhibit OGK 1, which is Supplement No. 54 to Tariff -
19 Electric Pa. P.U.C. No. 201 ("Tariff 201"), Exhibit OGK 2, Digest of Changes to PPL
20 Electric's Tariff 201, and Exhibit OGK 3, the Bill Frequency Analysis.
21

22 Q. Mr. Kasper, what is the purpose of your testimony?

1 A. My testimony addresses six subjects: (1) the effects of the revenue adjustments to
2 historic test year book revenues and future test year budget revenues; (2) the
3 allocation of the proposed increase among customer classes; (3) rate design;
4 (4) other proposed tariff changes; (5) bill frequency analysis; and (6) proof of
5 revenues.

6

7 **Adjustments to Historic and Future Test Year Revenues**

8 Q. Mr. Kasper, please describe the purpose of Schedule D-3 to Exhibits Historic 1 and
9 Future 1.

10 A. Schedule D-3 in Exhibit Historic 1 shows ratemaking adjustments to book operating
11 revenues for the historic test year ended December 31, 2006. Schedule D-3 in
12 Exhibit Future 1 shows similar adjustments to budget revenues for the future test
13 year ending December 31, 2007.

14

15 Q. Will you please describe the adjustments shown on Schedule D-3 in Exhibit
16 Historic 1?

17 A. Page 1 of Schedule D-3 in Exhibit Historic 1 contains a summary statement of the
18 various adjustments made to operating revenues for the test year ended
19 December 31, 2006, which are as follows:

20 Column 1 presents total revenues per books as supplied by Mr. Schadt.
21 Column 2 removes the revenues related to Provider of Last Resort ("POLR")
22 service and revenues related to the recovery of stranded costs. Column 3 sets
23 forth the combined T&D Operations revenues per books. Column 4 is the sum of

1 all adjustments proposed to adjust the book revenues to the pro forma ratemaking
2 level found in column 5. Line 2 of column 4 adjusts distribution revenues to reflect
3 the annualization of sales and revenues at December 31, 2006. All revenues in
4 column 5 are pro forma. Total pro forma operating revenues for the year ended
5 December 31, 2006 appear on line 17 of column 5.

6
7 Q. Please describe the adjustments shown on Schedule D-3 of Exhibit Future 1.

8 A. Page 1 of Schedule D-3 in Exhibit Future 1 contains a summary statement of the
9 various adjustments made to operating revenues budgeted for the year ending
10 December 31, 2007, which are as follows:

11 Column 1 presents total budget revenues as supplied by Mr. Schadt.

12 Column 2 removes the revenues related to POLR service and revenues related to
13 the recovery of stranded costs. Column 3 sets forth the budgeted revenues for the
14 combined T&D Operations. Column 4 is the sum of all adjustments proposed to
15 bring the budgeted revenues to the pro forma ratemaking level found in column 5.
16 Line 2 of column 4 adjusts distribution revenues to reflect the annualization of
17 budgeted sales and revenues at December 31, 2007. All revenues in column 5 are
18 pro forma. Total pro forma operating revenues at present rates for the year ending
19 December 31, 2007 appear on line 17 of column 5.

20
21 Q. Please continue your explanation of Schedule D-3.

22 A. Page 2 of Schedule D-3 for Exhibits Historic 1 and Future 1 shows the details of
23 the number of customers by rate schedule (column 2), KWH sales (column 3) and

1 revenue by each rate component (Distribution-column 4, Transmission-column 8,
2 CTC-column 9, ITC-column 10, Energy and Capacity-column 11, and two STAS-
3 columns 13 (Distribution STAS) and 14 (STAS applied to all other rate
4 components). The Total Revenue by rate schedule can be found in column 15.

5 Page 3 of Schedule D-3 shows, on line 27, for both the historic test year and
6 future test year, the total annualization adjustment by rate component. Page 3 also
7 has a calculated value for both Distribution STAS and all other STAS in columns 13
8 and 14.

9 Page 4 of Schedule D-3 shows adjustments that include: the Universal
10 Services Rider (USR), and the Energy Efficiency Rider (EER), as described in Mr.
11 Dahl's, Mr. Homa's and Mr. Kleha's testimony. On page 4, these riders represent
12 values in rates today, which are subtracted from the distribution rates on page 3.
13 These riders will be an annual adjustment to distribution rates in the future and will
14 not be shown as a separate line item on the bill.

15 Page 5 of Schedule D-3, for both the historic test year and future test year,
16 removes the revenue effect of shopping customers on the Company's
17 transmission, and energy and capacity. Those revenues are added back for rate
18 design purposes and proof of revenue calculations. This adjustment to revenues is
19 for calculation purposes only, treating all customers as if they are taking POLR
20 service.

21
22 Q. Please explain why you are adding back the transmission, and energy and
23 capacity, revenues associated with the shopping customers.

1 A. All of the Company's computer models for designing rates are based on the total
2 kWh being supplied by the Company (i.e., they are constructed using the
3 assumption that customers are not shopping). As shown in the proof of revenue
4 calculations in response to Exhibit Regs., §53.53, Part IV, Section C, it can be seen
5 in the units column that the kWh are constant for all components of the rates, as if
6 no customers are shopping. Accordingly, the Company calculates the summary of
7 total revenues at the bottom of each sheet assuming it provides POLR service to
8 all customers. This adjustment for shopping customers has no effect on the
9 amount of the increase, allocation of the increase or the proposed rate design.
10

11 Q. Please continue with your discussion of Schedule D-3.

12 A. Page 6 of Schedule D-3, for both the historic test year and future test year, shows
13 the proposed distribution revenues in column 3. Column 4 shows the Universal
14 Service Rider ("USR") proposed by Mr. Dahl totaling \$27,896,000, including
15 applicable gross receipts tax ("GRT"). Column 5 shows the Energy Efficiency
16 Rider ("EER") proposed by Mr. Homa totaling \$2,857,000, including applicable
17 GRT. The USR is charged only to the residential customers taking service under
18 Rate Schedules RS, RTS, and RTD. The EER is charged only to the residential
19 and small commercial customers taking service under Rate Schedules RS, RTS,
20 RTD and Rate Schedule GS-1.
21

1 Q. Please explain the relationship of the percentage increase shown on page 6,
2 column 15 of Schedule D-3, for both the historic test year and future test year, and
3 the *proof of revenue calculations*.

4 A. The total percentage increases shown by rate schedule in column 15, page 6, are
5 traceable to the response to Exhibit Regs., §53.53, Part IV, Section C, Calculation
6 of Effect of Proposed Rate (Proof of Revenue), for each rate schedule.

7 The distribution rate increase produced by the Company's proposed rate
8 design is found in column 14, line 38; page 6, of Schedule D-3 for both the historic
9 test year and future test year. For the future test year, the increase in distribution
10 revenues resulting from the Company's rate design is \$83,521,261. This increase
11 reflects both the requested increase in distribution revenues and an estimate of the
12 effect of applying both the USR and the EER, and the current level of STAS.

13

14 **Allocation of the Revenue Increase**

15 Q. What principles has PPL Electric followed in allocating the distribution rate increase
16 for this case?

17 A. As discussed by Mr. Douglas A. Krall, PPL Electric allocated the proposed revenue
18 increase in this case on the basis of cost of service and gradualism. In addition, as
19 Mr. Krall explains, allocation of the proposed increase was significantly influenced
20 by the Commonwealth Court's decision in the Lloyd case.

21

22 Q. How does the Company propose to allocate the distribution rate increase in this
23 proceeding.

1 A. As described in more detail by Mr. Krall, the increase has been allocated in a way
2 that is designed to move each rate schedule one-half of the way to full cost of
3 service, with the constraint that no rate schedule would receive a distribution rate
4 increase more than twice the system average distribution increase.

5

6 Q. Have you prepared a table to show the results of your proposed revenue
7 allocation?

8 A. Yes. Appendix A attached to this testimony provides the rate of return for each
9 rate schedule at present and proposed rates and the movement toward cost of
10 service on a relative rate of return basis. As shown on this table, with two
11 exceptions, all rate schedules were moved one-half of the way to full cost of
12 service. The two exceptions were Rate Schedule RTS and the Street Lighting
13 rates. In each case these rates were so far below cost of service that they could
14 not be moved half-way to cost of service without imposing very large rate
15 increases, out of proportion to the overall rate increase requested in this
16 proceeding. Although not shown on Appendix A, Street Lighting customers would
17 require a 37 percent distribution rate increase and Rate Schedule RTS customers
18 would require a 104 percent distribution rate increase to achieve the 50 percent
19 move to system average rate of return.

20

21 Q. Why didn't the Company propose to move all rate schedules to full cost of service
22 immediately?

1 A. Moving immediately to full cost of service would have required very large rate
2 increases to the major rate schedules. For example, moving Rate Schedule RS,
3 under which most residential customers are served, to full cost of service would
4 have required a 29.8 percent distribution rate increase. Such a move would have
5 required correspondingly large rate decreases for other rate schedules. And, on an
6 absolute basis, it would have required a residential rate increase far in excess of
7 the total \$77 million residential rate increase requested in this proceeding

8 Such increases are not reasonable in my opinion and certainly are not
9 required by the Lloyd decision, which affirms that gradualism is an appropriate
10 consideration in rate design. As Mr. Krall explains, the Company's proposed
11 revenue allocation has not allowed gradualism to "trump" cost of service; rather,
12 gradualism has been used to temper the movement to full cost of service over a
13 specific and reasonable time period.

14
15 Q. Did PPL Electric examine the results of the compliance filing in the 2004 rate case?

16 A. Yes. As discussed by Mr. Krall, the rates approved by the Commission in that case
17 moved all rate schedules at least one-third of the way toward full cost of service on
18 a relative rate of return basis. The data, shown on Appendix B to this testimony,
19 clearly supports this conclusion. As can be seen on Appendix B, Rate Schedule
20 RS moved from 48 % to 64% of system average return, a movement of
21 approximately one-third. In the current case, Rate Schedule RS will move from
22 59% to 82%, or one-half of the way to full cost of service. In its next distribution
23 rate case, the Company, subject to the principles of gradualism, will propose to

1 move Rate Schedule RS to full cost of service. A similar approach can be
2 observed for rate schedules currently above cost of service. Rate Schedule GS-1
3 moved from 235% to 185% of system average return in the 2004 case, a move of
4 37%. In this case, Rate Schedule GS-1 will move from 214% to 159%, or one-half
5 of the way to full cost of service. Thus, in three rate cases, i.e., 2004, 2007 and the
6 next rate case, PPL Electric will have moved rates to, or near to, full cost of
7 service. The Company believes that this is a reasonable plan to move rates to cost
8 of service and is fully consistent with the Lloyd decision.

9
10 Q. Why are the percentages of system average returns that resulted from the 2004
11 rate case not the starting points for percentages of system average returns at
12 present rates in this case?

13 A. Between cases, the allocation factors can change somewhat because of changes
14 in the inputs. Moreover, costs change between cases, and the nature of these
15 costs, and the applicable allocations used for the costs, can result in one class
16 being allocated a greater or lesser amount of costs than other classes, resulting in
17 lower or higher percentages of cost of service compared to system average. This
18 is why it is important that PPL Electric's plan reflect increasing percentage
19 movement toward full cost of service over a period of cases (i.e., 1/3, 1/2 and full),
20 and that the Commission evaluate the plan as a whole, and not just movement in
21 an isolated case.

22

1 **Rate Design**

2 Q. Please describe the overall rate design approach in PPL Electric's proposed Tariff
3 No. 201, Supplement 54, provided as Exhibit OGK 1.

4 A. The primary objective of the rate design was to develop rate schedules that would
5 produce the requested revenues when applied to forecasted conditions for the 12
6 months ending December 31, 2007.

7
8 Q. How was the cost of providing service reflected in the rate design?

9 A. In the analysis of the cost of providing service for distribution operations, there are
10 only two types of costs, customer and demand. In the presently effective
11 residential rate (Rate Schedule RS) and the small general service rate (Rate
12 Schedule GS-1), however, a large portion of the distribution revenue is being
13 collected through usage, or kWh charges. In this filing, PPL Electric is proposing to
14 continue movement toward distribution rates that are more demand and customer
15 dependent and less usage-based. This change is more reflective of how costs are
16 incurred by an electric distribution company ("EDC").

17
18 **Rate Schedule RS-Residential Service:**

19 Q What changes are being proposed for the residential rate under Rate Schedule
20 RS?

21 A. The Company is proposing to increase the customer charge from \$7.96 to \$10.00
22 per month to more closely reflect the cost of providing service, as set forth in Mr.

1 Kleha's Exhibit JMK 3. The total number of kWh steps within the rate remains the
2 same at three.

3 In addition, the single meter and two meter residential off-peak water
4 heating provisions will be charged under the standard residential Rate Schedule
5 RS rates for distribution service. The rate structure of the generation components
6 of the rate (CTC, ITC, and E&C) will remain as established by the Company's
7 Restructuring Settlement.

8
9 Q. Are there any changes to the Application provisions of Rate Schedule RS?

10 A. Yes. Today, any building on a property with a separate electric service, on which
11 there exists a house served under Rate Schedule RS, will qualify for service under
12 Rate Schedule RS, with or without residential use in the building. For non-
13 residential services, non-residential rates should apply if supplied through a
14 separate service. Tariff language is clarified to apply non-residential rates to these
15 services.

16 Specifically, a dwelling is defined as a living space consisting, at a minimum,
17 of permanent provisions for shelter, dining, sleeping, and cooking, with provisions
18 for permanent electric, water, and sanitation services. This definition will only be
19 applicable prospectively.

20
21 **Residential Time of Day-Rate Schedule RTD**

22 Q. What changes are being proposed for residential time-of-day under Rate Schedule
23 RTD?

1 A. The distribution rate structure and pricing will become the same as that for Rate
2 Schedule RS, as described above. The rate structure of the generation
3 components of the rate (CTC, ITC, and E&C) will remain as established by the
4 Company's Restructuring Settlement.

5

6 **Residential Thermal Storage-Rate Schedule RTS**

7 Q. What changes are being proposed for residential thermal storage under Rate
8 Schedule RTS?

9 A. The distribution rate structure will become the same style as that for Rate Schedule
10 RS, as described above, i.e., a customer charge and three kWh steps. Pricing is
11 being designed to limit the percentage increase in distribution rates to twice the
12 system average percentage distribution increase. The rate structure of the
13 generation components of the rate (CTC, ITC, and E&C) will remain as established
14 by the Company's Restructuring Settlement.

15

16 **Small General Service – Rate Schedule GS-1**

17 Q. What changes are being proposed for small general service under Rate Schedule
18 GS-1?

19 A. The structure of Rate Schedule GS-1 remains essentially unchanged with a
20 customer charge that includes the first 5 kW of the billing demand. PPL Electric is
21 proposing to increase the customer charge from \$11.41 to \$12.00 per month, and
22 increase the demand charge from \$2.35 per kW to \$2.40 per kW.

1 In addition, the Company is proposing to change the rounding technique
2 used in the calculation of this rate. Presently, demands for billing are rounded to
3 the nearest 1/2 kW. This is the only rate schedule in PPL Electric's tariff that is
4 calculated this way. In the Company's studies of moving to rounding to the nearest
5 full kW, there was little or no impact on any customer's annual costs.

6
7 **Large General Service – Rate Schedule GS-3**

8 Q. Are there any changes proposed to large general service under Rate Schedule
9 GS-3?

10 A. Yes. In keeping with the general direction of moving toward more customer and
11 demand-oriented rates and away from kWh-based rates, proposed Rate Schedule
12 GS-3 will recover 100% of the overall distribution revenue through demand
13 charges. The present Rate Schedule GS-3 rate already recovers 95% of the
14 overall distribution revenue through demand charges.

15
16 **Large Power Firm Service at 12,000 Volts – Rate Schedule LP-4**

17 Q. Are there any changes proposed to large power service under Rate Schedule
18 LP-4?

19 A. No rate design changes are being proposed for this rate schedule.
20

21 **Large Power Interruptible Service at 12,000 Volts – Rate Schedule IS-P**

22 Q. Are there any changes proposed to large power interruptible service under Rate
23 Schedule IS-P?

1 A. Yes, the distribution rate structure for Rate Schedule IS-P is being changed to the
2 Rate Schedule LP-4 style of rate structure. From a distribution viewpoint, there is
3 no difference between Rate Schedule IS-P customers and any other Rate
4 Schedule LP-4 customer. The billing kW for the distribution component of the bill is
5 the average number of kilowatts supplied during the 15-minute period of maximum
6 use during the current billing period. The Billing kW for the non-distribution
7 components of the bill will continue to be calculated based on the On Peak
8 Demand, Firm Power, and Load Factor.

9
10 **Large Power Service at 69,000 volts - Rate Schedules LP-5, LP-6, IS-T,**

11 Q. Are there any changes proposed to the distribution rate for large power service
12 customers that take service under 69 kV delivery rates?

13 A. Yes. PPL Electric is proposing a customer charge for all 69 kV customers for
14 distribution service. The customer charge will be different for each of the rate
15 schedules due to historical ratemaking. Over a series of rate cases, all of these
16 rate schedules should have the same customer charge.

17
18 **Electric Propulsion, Rate Schedule LPEP**

19 Q. Are there any changes proposed for electric propulsion under Rate Schedule
20 LPEP?

21 A. The existing monthly Facility Charge for use of the Company's 25-hertz facilities
22 will be combined with a customer charge.

1 **Tariff Changes**

2 Q. Would you briefly describe the contents of Exhibit OGK 2?

3 A. This exhibit, which is entitled "Digest of Proposed Changes Requested in
4 Supplement No. 54 to Tariff – Electric Pa. P.U.C. No. 201," contains a summary of
5 the Company's proposed rules and rate changes. A copy of this digest is provided
6 to all PPL Electric employees who have responsibility for administration of the
7 electric service tariff.

8
9 **Rule Changes**

10 Q. Is there a comprehensive list of changes that summarizes all the proposed tariff
11 changes?

12 A. Yes. This list can be found in the summary starting on page 2 of Exhibit OGK 1,
13 Supplement No. 54 to PPL Electric's Tariff – Electric Pa. P.U.C. No. 201.

14
15 Q. Are there any proposed changes in the Characteristics of Service provisions for
16 Supply of Service (Rule 4A)?

17 A. Yes. The distribution system is defined, for purposes of this rule, as including all
18 lines energized at voltages less than the nominal 69,000 volts, and excluding
19 service extensions and lines energized at voltages of nominal 69,000 volts or
20 higher. This change will clarify that Rule 4 applies only to the distribution system at
21 less than 69kV. Also, the Company may provide a separate point of delivery at the
22 customer's request as a speculative line and/or service extension to an institutional
23 complex. In the case of two or more services, the customer pays the fully allocated

1 cost of any primary or secondary voltage to serve the additional points of delivery.

2 This change clarifies how PPL Electric charges for more than two services on the
3 same property for the same customer.

4
5 Q. Are there any changes proposed to the Method of Service provision for Supply of
6 Service (Rule 4C)?

7 A. Yes. The Company furnishes and installs all electric service line facilities
8 extending from its distribution supply lines to the customer's point of delivery. The
9 "at or near the customer's property line" and "on his property" terms are removed to
10 clarify how PPL Electric treats service extensions to customer facilities.

11
12 Q. Are there any changes proposed in the "Relocations of Facilities" provision of Tariff
13 Rule 4I?

14 A. Yes. When a request for relocation of facilities is received from a property owner
15 and the facilities are on the customer's property, the charges for relocation of
16 distribution system facilities are limited to estimated contractor costs, and
17 estimated direct labor and estimated material costs, less an amount equal to any
18 estimated maintenance expense avoided as a result of the relocation. The phrase
19 "and the facilities are on the customer's property" is being added to clarify the
20 location requirement for the Company facilities.

21
22 Q. Are there any changes proposed in the "Temporary Service" provision of Tariff
23 Rule 7?

1 A. Yes. The provisions in this rule for temporary service were clarified to apply only to
2 annually recurring service. Service to permanent residences on a residential rate
3 schedule does not apply.
4

5 **Rider Changes**

6 Q. Are any new riders being proposed?

7 A. Yes, as found in Mr. Dahl's and Mr. Homa's testimony, two new, annually
8 reconciled riders are being proposed: 1) the Universal Service Rider, and 2) the
9 Energy Efficiency Rider.
10

11 Q. Are there any proposed changes to the Interruptible Service by Agreement Rider
12 and the Competitive Rate Rider?

13 A. Yes. The Company is proposing that these riders be terminated on January 1,
14 2010. At that time, any customer receiving service under these rate riders will be
15 transferred to the appropriate rate schedule in this tariff. There currently are three
16 (3) customers remaining on this rider. All three are basically on the Rate Schedule
17 LP-5 rate with an expanded Economic Development Credit within their contracts.
18 Ending the Competitive Rate Rider in 2010 will then parallel the termination of the
19 EDI and IDI riders currently in PPL Electric's Tariff.
20

21 Q. Are there any proposed changes to the Sustainable Energy Fund Rider?

22 A. Yes. The Company is proposing to remove this rider because PPL Electric is no
23 longer collecting funds from customers for this purpose. A new rider will address

1 the need to promote the development and use of renewable energy and clean
2 energy technologies, energy conservation and efficiency which promotes clean
3 energy. This rider is discussed in more detail in Mr. Krall's direct testimony.
4

5 Q. Are there any proposed changes to the Metering and Billing Credit Rider?

6 A. Yes. The Company is proposing that the Metering, Meter Reading, and Billing and
7 Collection credits be adjusted, based on current cost of service data. The
8 proposed charges are set forth in Mr. Kleha's Exhibit JMK 3.
9

10 Q. Are there any changes to the Interim and PPL-GENCO Codes of Conduct?

11 A. Yes. The Interim and PPL-GENCO Codes of Conduct became effective upon
12 Commission approval in January 1, 1999. Since that time, these Codes of Conduct
13 have been superseded, and they are no longer effective.
14

15 Q. Are there any changes proposed to the Demand Side Initiative Rider?

16 A. Yes. The Company is proposing that this "experimental" rider be extended to
17 January 1, 2010 to continue providing industrial and commercial customers with an
18 option to adjust their load requirements in response to market prices. This rider is
19 discussed further in Mr. Krall's direct testimony.
20

21 Q. Are there any proposed changes to the Demand Side Response Residential Rider?

22 A. Yes. The Company is proposing that this "experimental" rider be extended to
23 September 30, 2009 to continue providing residential customers with an option to

1 adjust their load requirements in response to market prices. This rider is discussed
2 further in Mr. Krall's direct testimony.

3
4 **Rate Schedule Changes**

5 Q. Are there any restrictions being proposed for any of the Company's rate
6 schedules?

7 A. Yes. The Company is proposing to change Rate Schedule GS-1 to be single-
8 phase service only. PPL Electric will grandfather existing 2 and 3-phase secondary
9 voltage accounts currently served on this rate schedule. Only new, secondary
10 voltage, single-phase accounts will be eligible for Rate Schedule GS-1. PPL
11 Electric also is proposing to change Rate Schedule GS-3 to be applicable for only
12 multiple-phase service. PPL Electric will grandfather existing single-phase
13 secondary voltage accounts on this rate schedule. Only new, secondary voltage, 2
14 and 3-phase accounts will be eligible for Rate Schedule GS-3.

15
16 **Private Area Lighting – Rate Schedule SA**

17 Q. Are there any changes proposed for private area lighting under Rate Schedule SA?

18 A. Yes. Lamp replacements will be provided by the third working day following outage
19 notification to the Company by the customer.
20

1 **Mercury Vapor Street Lighting Service – Rate Schedule SM and High Pressure**
2 **Sodium Street Lighting Service – Rate Schedule SHS**
3

4 Q. Are there any changes proposed for mercury vapor street lighting service under
5 Rate Schedule SM and high pressure sodium street lighting service under Rate
6 Schedule SHS?

7 A. Yes. No new installations of mercury vapor lamps and fixtures will be offered after
8 January 1, 2008 in accordance with the Energy Policy Act of 2005. In addition, as
9 existing mercury vapor fixtures fail, the customer will be transitioned to the high
10 pressure sodium (Rate Schedule SHS) nominal lumens equivalent, in accordance
11 with the Energy Policy Act of 2005, which states that “mercury vapor lamp ballasts
12 shall not be manufactured or imported after January 1, 2008.

13
14 Q. Are there any changes proposed for the Energy Only Street Lighting Service - Rate
15 Schedule SE?

16 A. Yes. The application of this rate schedule will be expanded to include induction
17 street lighting systems for municipalities, governmental agencies, and property
18 owners/developers. This will provide another option for customers replacing
19 sodium vapor lamps. Also, the minimum number of lamps for eligibility is being
20 reduced from 100 to 5, and the restriction on municipal or governmental ownership
21 is being removed.

22
23 Q. Are there any changes to enrollment procedures for customers who have not had
24 the opportunity to shop?

1 A. Yes. The following phrase that exists in all rate schedules is being removed: "New
2 applications for service in the tariff are limited to customers who have not had the
3 opportunity to purchase capacity and energy from their choice of electric
4 generation suppliers pursuant to the enrollment procedures contained in the
5 Commission's order at Docket M-00960890F.0014 and M-00960890F.0015." This
6 statement is no longer applicable and can be removed from the appropriate rate
7 schedules in the tariff.
8

9 **Bill Frequency Analysis**

10 Q. Mr. Kasper, please explain the methods used to calculate the annual revenue
11 effects of the proposed rates.

12 A. A summary of the bill distributions and other summaries of billing quantities for all
13 rates are provided in Exhibit OGK 3 for the 12 months ended December 31, 2006.
14 Both present and proposed rates were applied to the calculated billing quantities.
15 The results of these calculations were then used to obtain adjusted rate class
16 revenue for the period ended December 31, 2006, and for the budgeted rate class
17 revenue for the period ending December 31, 2007. In this way, the Company
18 derived the total annual revenue effect and the effect by rate classes. Increases
19 also were assigned to the late payment charge and to the annualized revenue
20 adjustment.
21

22 **Proof of Revenue**

23 Q. Please explain the proof of revenue or bill frequency analysis.

1 A. The response to Exhibit Regs., §53.53, Part IV, Section C contains a bill frequency
2 analysis which details, by rate class, the billing units for each type of charge in PPL
3 Electric's existing and proposed tariff. In column 2, there is a summary of the
4 annual billing units for each class. This summary includes total customer bills, total
5 kW, or total kWhs in the specific block. Column 3 contains the price per unit at
6 current rates. Column 4 shows the total revenue for that block. The percentage
7 increase in proposed rates over current rates is at the bottom of each page. This
8 percentage is used to calculate the dollar revenue increase for all classes. The
9 results of the proof of revenue can be found on Schedule D-3, page 6, of Exhibits
10 Historic 1 and Future 1.

11

12 Q. Have you compared customer bills before and after the proposed increase?

13 A. Yes, bill comparisons for selected rate schedules can be found in response to
14 Exhibit Regs., §53.53, Part IV, Section D. Various bill comparisons were
15 completed utilizing average usage and a selected range of residential and general
16 service usage.

17

18 Q. Does this conclude your testimony?

19 A. Yes, it does.

**PPL Electric Utilities Corporation
2007 Distribution Rate Filing
ROR & Revenue Requirements
(\$000s)**

	System	RS	RTS	GS-1	GS-3	LP-4	ISP	GH	SL/JAL	LP-5	IST	LP-6	LPEP	L5-S
Present ROR	6.11%	3.63%	-4.31%	13.08%	13.14%	13.83%	19.08%	9.20%	-0.03%	20.74%	41.46%	17.69%	13.89%	6.38%
Pct of System	100.00%	59.41%	-70.54%	214.08%	215.06%	226.35%	312.27%	150.57%	-0.49%	339.44%	678.56%	289.53%	227.33%	104.42%
Proposed ROR	8.36%	6.82%	-2.96%	13.32%	13.24%	13.54%	17.54%	10.57%	2.79%	18.29%	33.05%	16.67%	13.76%	8.51%
Pct of System	100.00%	81.58%	-35.65%	159.33%	158.37%	161.96%	209.81%	126.44%	33.37%	218.78%	395.33%	199.40%	164.59%	101.79%
Change Proposed ROR	2.25%	3.19%	1.33%	0.24%	0.10%	-0.29%	-1.54%	1.37%	2.82%	-2.45%	-8.41%	-1.02%	-0.13%	2.13%
Pct of System	0.00%	22.17%	34.89%	-54.75%	-56.68%	-64.39%	-102.47%	-24.14%	33.85%	-120.66%	-283.22%	-90.12%	-62.74%	-2.62%
Revenue Increase	83,521	77,329	944	845	612	(391)	(107)	542	4,007	(135)	(127)	(5)	(1)	2
Pct of Total Revenues	2.68%	5.95%	3.57%	0.36%	0.08%	-0.10%	-0.53%	1.55%	16.84%	-0.07%	-0.14%	-0.02%	-0.02%	0.18%
Pct of Distribution														
Rate Revenues	13.04%	20.13%	25.44%	1.10%	0.52%	-1.28%	-5.60%	7.64%	24.89%	-7.37%	-16.34%	0.00%	-0.30%	6.06%
2 times Cap	26.07%													
Revenue Increase Components:														
Social Program Rider	27,896	27,629	267											
Energy Efficiency Rider	2,856	2,362	23	471										
Base Rate Change	52,769	47,338	654	374	612	(391)	(107)	542	4,007	(135)	(127)	(5)	(1)	2
Total	83,521	77,329	944	845	612	(391)	(107)	542	4,007	(135)	(127)	(5)	(1)	2
Pct of System														
50% Move to SARR														
Present		59.41%	-70.54%	214.08%	215.06%	226.35%	312.27%	150.57%	-0.49%	339.44%	678.56%	289.53%	227.33%	104.42%
Proposed		81.58%	-35.65%	159.33%	158.37%	161.96%	209.81%	126.44%	33.37%	218.78%	395.33%	199.40%	164.59%	101.79%
Move		22.17%	-34.89%	-54.75%	-56.68%	-64.39%	-102.47%	-24.14%	33.86%	-120.66%	-283.22%	-90.12%	-62.74%	-2.62%
Pct Move		54.6%	20.5%	48.0%	49.3%	51.0%	48.3%	47.7%	33.7%	50.4%	49.0%	47.6%	49.3%	59.4%

**PPL Electric Utilities Corporation
2004 Distribution Rate Filing
ROR Changes**

	System	RS	RTS	GS-1	GS-3	LP-4	ISP	GH	SL/AL	LP-5	IST	LP-6	LPEP	L5-S
2004 Present Rates ROR	4.04%	1.94%	-4.07%	9.49%	9.09%	9.00%	12.40%	8.85%	2.24%	25.54%	92.92%	85.29%	7.77%	5.99%
Pct of System	100.00%	48.02%	-100.74%	234.90%	225.00%	222.77%	306.93%	219.06%	55.45%	632.18%	2300.00%	2111.14%	192.33%	148.27%
2004 Compl Filing ROR	8.43%	5.42%	-3.26%	15.57%	16.67%	16.38%	16.81%	15.84%	4.06%	27.12%	55.01%	52.94%	11.66%	19.16%
Pct of System	100.00%	64.29%	-38.67%	184.70%	197.75%	194.31%	199.41%	187.90%	48.16%	321.71%	652.55%	628.00%	138.32%	227.28%
Change in 2004 ROR	4.39%	3.48%	0.81%	6.08%	7.58%	7.38%	4.41%	6.99%	1.82%	1.58%	-37.91%	-32.35%	3.89%	13.17%
Pct of System	0.00%	16.27%	62.07%	-50.20%	-27.25%	-28.47%	-107.52%	-31.16%	-7.28%	-310.47%	-1647.45%	-1483.14%	-54.01%	79.02%
Pct of System														
50% Move to SARR														
Present		48.02%	-100.74%	234.90%	225.00%	222.77%	306.93%	219.06%	55.45%	632.18%	2300.00%	2111.14%	192.33%	148.27%
Proposed		64.29%	-38.67%	184.70%	197.75%	194.31%	199.41%	187.90%	48.16%	321.71%	652.55%	628.00%	138.32%	227.28%
Move		16.27%	62.07%	-50.20%	-27.25%	-28.47%	-107.52%	-31.16%	-7.28%	-310.47%	-1647.45%	-1483.14%	-54.01%	79.02%
Pct Move		31.31%	30.92%	37.22%	21.80%	23.19%	51.96%	26.17%	16.35%	58.34%	74.88%	73.75%	58.50%	163.71%

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Docket No. R-00072155

PPL Electric Utilities Corporation

Statement No. 8

Direct Testimony of Timothy R. Dahl

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1 **Direct Testimony of Timothy R. Dahl**

2 Q. Please state your full name and business address.

3 A. My name is Timothy R. Dahl and my business address is PPL Electric Utilities
4 Corporation, 827 Hausman Road, Allentown, PA 18104.

5

6 Q. What is your position at PPL Electric Utilities Corporation ("PPL Electric" or the
7 "Company")?

8 A. I am the Manager - Regulatory Programs & Business Services. I report directly
9 to the Vice President - Customer Services.

10

11 Q. How long have you worked at PPL Electric?

12 A. I have worked at PPL Electric for nearly 29 years.

13

14 Q. What are your current areas of responsibility?

15 A. I manage the Company's universal service, regulatory compliance and quality
16 assurance programs and activities. I oversee the budget, staffing, operations,
17 processes, and Pennsylvania Public Utility Commission ("PUC" or the
18 "Commission") reporting requirements for the following universal service
19 programs: OnTrack, WRAP, Operation HELP and CARES. I am responsible for
20 compliance and quality assurance to ensure adherence to PUC regulations,
21 timely responses to customer complaints filed with the Commission, training and
22 improvements in procedures to strengthen overall performance. I serve as the
23 liaison between PPL Electric and the PUC's Bureau of Consumer Services,

1 Pennsylvania Department of Public Welfare ("DPW"), and the Pennsylvania
2 Office of Consumer Advocate regarding low-income programs, compliance with
3 consumer regulations (e.g., 52 Pa. Code Chapter 56), and policy issues
4 regarding residential customers. I act as the Company's advocate regarding
5 federal funding and state administration of the Low Income Home Energy
6 Assistance Program ("LIHEAP"). I oversee and direct PPL Electric's customer
7 outreach efforts during storm emergencies.

8
9 Q. What is your work experience, professional associations and education
10 background?

11 A. During my nearly 29-year career at PPL Electric, I have held various staff and
12 supervisory positions in Marketing & Economic Development, Public Affairs and
13 Customer Services. In my current position as Manager - Regulatory Programs &
14 Business Services, I direct a work group of 19 people, including staff
15 professionals and administrative support. I have participated in various
16 organizations such as the Edison Electric Institute ("EEI"), Energy Association of
17 Pennsylvania ("EAP"), National Low Income Energy Consortium, National Fuel
18 Fund Network, Campaign for Home Energy Assistance, and the PA Natural Gas
19 Universal Service Task Force. Over the years, I have chaired committees at
20 both EEI and EAP and have served on various Commission-sponsored working
21 groups. I have made presentations at numerous conferences and workshops. I
22 hold BA and MA degrees in Political Science.

23
)

1 Q. What is the purpose of your testimony regarding PPL Electric's request for
2 increased rates?

3 A. My testimony describes and explains the Company's proposals regarding the
4 funding and implementation of its universal service programs, especially OnTrack
5 and the Winter Relief Assistance Program ("WRAP"). OnTrack, which is PPL
6 Electric's Customer Assistance Program ("CAP"), provides affordable payments,
7 arrearage forgiveness and referrals to other assistance programs. WRAP offers
8 free weatherization services for both homeowners and renters and energy
9 conservation education, and is the Company's PUC-required Low Income Usage
10 Reduction Program ("LIURP").

11 I also will discuss PPL Electric's proposed Sustainable Development
12 Program ("SDP"), which will focus on promoting the construction of "green"
13 buildings and supporting development efforts in downtowns. PPL Electric has a
14 long history of providing leadership to a number of critical elements of
15 sustainable economic development programs. The SDP is a three-pronged effort
16 that will provide grants for LEED ("Leadership in Energy and Environmental
17 Design") certification (i.e., "green" buildings), downtown improvements in
18 communities with viable economic development plans, and matching grants to
19 regional economic development groups that obtain state funding for regional
20 marketing initiatives.

21
22 Q. Are you sponsoring any exhibits as part of your direct testimony?

23 A. Yes, I am sponsoring the following exhibits in this proceeding:
)

Exhibit Number	Description
TRD 1	Fact Sheets on Universal Service Programs
TRD 2	List of Agencies that Administer PPL Electric's Programs
TRD 3	Universal Service & Energy Conservation Plan

1

2

I. Universal Service Programs

3 Q. What types of programs does PPL Electric offer to its low-income customers?

4 A. PPL Electric has over 20 years of experience in developing and implementing
5 programs and services for low-income households. The Company's current
6 family of programs includes the following: OnTrack, WRAP, Operation HELP and
7 CARES. In general terms, OnTrack offers a reduced payment plan and
8 arrearage forgiveness; WRAP provides free weatherization measures and
9 energy conservation education; Operation HELP pays for any type of home
10 heating bill; and CARES is an evaluation and referral service for customers with
11 temporary hardships. PPL Electric also promotes the availability of LIHEAP,
12 which provides energy assistance grants to low-income households (i.e., at or
13 below 150 percent of the federal poverty level). Exhibit TRD 1 provides a more
14 detailed explanation of the Company's four universal service programs and
15 LIHEAP.

16

17 Q. When did PPL Electric begin its universal service programs?

18 A. The Company implemented CARES in 1980, Operation HELP in 1983, WRAP in
19 1985 and OnTrack in 1994. PPL Electric began promoting LIHEAP when the
20 program started in the early 1980s.

21

1 Q. How does PPL Electric implement and administer the four universal service
2 programs?

3 A. For many years, the Company has worked closely with a variety of community-
4 based organizations ("CBOs" or "social agencies") throughout its 29-county
5 service area in central and eastern Pennsylvania. These CBOs have extensive
6 experience in serving low-income households, in coordinating with other
7 community resources, and in providing other benefits to customers. This
8 collaboration between PPL Electric and the CBOs is essential to the effective
9 delivery of program services to income eligible households. Exhibit TRD 2
10 provides a list of the various CBOs that administer PPL Electric's universal
11 service programs.

12
13 Q. What are the current annual budgeted funding levels for PPL Electric's universal
14 service programs?

15 A. The estimated annual budgeted funding levels for 2007 for the four major
16 programs appear in the following table.

17

Program	Annual Funding Level
OnTrack	\$19,000,000
WRAP	6,800,000
Operation HELP	1,125,000
CARES	80,000
Total	\$27,005,000

18
19 Current funding for OnTrack and WRAP comes from rates paid by all residential
20 customers. Donations from PPL Electric, its customers and employees provide
21 all of the funding for Operation HELP (i.e., \$700,000 from PPL Corporation and

1 an estimated \$425,000 in donations from customers and employees). There is
2 no specific operation and maintenance budget for CARES. Rather, the
3 estimated expenditure of \$80,000 covers wages for PPL Electric employees who
4 administer the program (\$50,000) and CARES Credits (\$30,000). PPL Electric
5 provides CARES with \$30,000 in funding from its corporate contribution to
6 Operation HELP. This funding provides CARES Credits, which the Company's
7 Customer Programs Directors use to pay electric bills for customers who need
8 additional assistance or do not qualify for existing programs.

9
10 Q. How does PPL Electric promote the availability of LIHEAP?

11 A. LIHEAP is an important statewide energy assistance program that serves
12 hundreds of thousands of low-income households in the Commonwealth.

13 LIHEAP, when used in combination with other universal service programs, helps
14 to provide additional assistance. The Company promotes LIHEAP by sending a
15 bill insert to all customers, conducting special mailings, implementing outbound
16 telephone campaigns, providing information to its Customer Service
17 Representatives, and working closely with local Department of Public Welfare
18 County Assistance Offices.

19
20 Q. What are the primary benefits of these universal service programs?

21 A. PPL Electric believes that its universal service programs offer a variety of
22 benefits. For example, the following table shows the number of customers
23 assisted by the major programs over the past four years.

Program	2003	2004	2005	2006
OnTrack	12,420	15,801	14,033	20,721
WRAP	2,890	2,356	2,626	2,418
Operation HELP	2,660	2,597	3,103	3,869
Total	17,970	20,754	19,762	27,008

1
2 The above totals are somewhat understated because the numbers for
3 OnTrack (i.e., PPL Electric's CAP) reflect enrollment as of December 31. The
4 actual number of low-income customers receiving OnTrack benefits is higher
5 because some customers may receive benefits for less than 12 months. For
6 example, a customer may enroll in OnTrack in January and leave the program in
7 July. Although the customer received six months of benefits (i.e., CAP Credits
8 and arrearage forgiveness), he or she would not show up in the year-end
9 customer number. In 2006, just over 29,000 residential customers received CAP
10 benefits through participation in OnTrack.

11 As noted above, PPL Electric takes various steps to inform income-eligible
12 customers about LIHEAP. The following table shows the number of customers
13 assisted and the grant amounts for the past four program years.

LIHEAP	2002-2003	2003-2004	2004-2005	2005-2006
Customers	13,906	14,695	18,815	22,780
Grants	\$3,924,007	\$3,818,886	\$4,844,825	\$6,170,485

14
15
16 From a customer's perspective, key benefits of the various universal
17 service programs include: avoiding utility shut-offs, receiving an affordable
18 electric bill, lowering energy bills through weatherization measures and energy
19 education, acquiring assistance from other programs and improving living
20 comfort. From PPL Electric's perspective, important benefits include: improving

1 customer satisfaction, avoiding collection expenses, reducing PUC complaints,
2 managing overdue receivables and strengthening partnerships with local
3 community organizations.
4

5 Q. Does PPL Electric intend to deliver these programs in the same manner in 2008
6 and beyond?

7 A. Yes, the Company will continue to work closely with CBOs and other contractors
8 that have administered the various programs for years. This cooperation and
9 coordination is important to the delivery of programs and services to low-income
10 customers. Although this delivery model has been effective, PPL Electric will
11 continue its efforts to streamline processes and use technology enhancements to
12 improve program delivery. Examples of these efforts include re-certifying
13 LIHEAP recipients who are CAP customers every two years and implementing
14 an electronic work order for LIURP contractors.
15

16 Q. What levels of annual funding does PPL Electric propose for its universal service
17 programs?

18 A. If approved by the Commission, PPL Electric proposes to increase annual
19 funding for OnTrack and WRAP by \$5,800,000 and \$1,000,000, respectively,
20 from the levels approved by the Commission in the Company's most recent
21 distribution rate case at Docket No. R-00049255. The Company intends to
22 increase its annual corporate contribution to Operation HELP by 43 percent --
23 from \$700,000 to \$1,000,000. Donations from customers and employees may
)

1 rise modestly because of annual solicitation efforts. Funding for CARES will
2 increase slightly to reflect changes in wages for PPL Electric personnel who
3 support the program. The following table shows the proposed funding for the
4 universal service programs in 2008.

5

Program	2005	2008	% Increase
OnTrack	\$13,200,000	\$19,000,000	43.9%
WRAP	6,250,000	7,250,000	16.0%
Operation HELP	912,000	1,425,000	57.3%
CARES	80,000	82,000	2.5%
Total	\$20,442,000	\$27,757,000	35.8%

6

7 In PPL Electric's most recent base rate proceeding, the Commission
8 approved annual funding levels of \$13.2 million for OnTrack and \$6.25 million for
9 WRAP. All of the funding for these two programs comes from the residential
10 class. From these 2004 Commission-approved funding levels, PPL Electric
11 proposes to increase funding by 44 percent for OnTrack (\$13.2 million to \$19
12 million) and by 16 percent for WRAP (\$6.25 million to \$7.25 million). The
13 Commission's regulations at 52 Pa. Code § 58.4 require electric utilities to
14 expend 0.2 percent of jurisdictional revenues on LIURP (i.e., WRAP). The
15 Company's proposed funding level for WRAP represents nearly 0.25 percent of
16 jurisdictional revenues as of December 31, 2006.

17
18 Q. Does PPL Electric intend to continue recovery of funding for its universal service
19 programs through the base rates charged to the residential customer class?

1 A. No, PPL Electric proposes to recover all costs associated with its universal
 2 service programs through a reconcilable surcharge that applies only to residential
 3 customers. On page 13 of its *Final Investigatory Order* at Docket No. M-
 4 00051923, the Commission indicated that, "Requiring recovery of universal
 5 service costs through base rates cannot be reconciled with the statutory mandate
 6 of full cost recovery." As such, the Commission will allow cost recovery for these
 7 programs through a reconcilable surcharge rather than a base rate charge.
 8 Regarding the frequency of reconciliation, the Commission indicated that it will
 9 address this issue on a case-by-case basis as utilities establish their surcharges.
 10 The Commission noted that utilities may propose a quarterly or an annual
 11 reconciliation; PPL Electric proposes to reconcile its Universal Service Rider
 12 ("USR") annually.

13
 14 Q. In general terms, how does PPL Electric intend to implement its reconcilable
 15 USR?

16 A. As stated above, the Company proposes to establish a tariff rider that would be
 17 reconciled annually. PPL Electric intends to include all CAP ("OnTrack") and
 18 LIURP ("WRAP") charges in the USR (i.e., the \$19.45 million currently in base
 19 rates and the \$6.8 million in additional expenditures). The following table shows
 20 a breakdown of the proposed expenditures.

21

Program	Existing Amounts	Proposed Amounts	Total
OnTrack	\$13,200,000	\$5,800,000	\$19,000,000
WRAP	6,250,000	1,000,000	7,250,000
Total	\$19,450,000	\$6,800,000	\$26,250,000

1 PPL Electric proposes generally to base its USR on the design of the
2 former Energy Cost Rate ("ECR"). Until 1997, all major electric utilities in
3 Pennsylvania included the ECR (or one of the predecessor clauses) in rates.
4 The ECR permitted full recovery of costs, was understandable and easy to
5 administer, and worked well for many years. The Company recommends
6 applying the USR to the distribution charges of residential customers' bills on a
7 percentage basis. Mr. Joseph M. Kleha discusses the details of the design and
8 implementation of the USR in his testimony.
9

10 Q. What universal service costs should be included in the USR?

11 A. PPL Electric believes that the Commission should reflect all prudently incurred
12 CAP and LIURP costs in the USR. The three major costs for CAP include
13 administration, CAP credits (i.e., the difference between the actual bill and the
14 reduced CAP bill) and arrearage forgiveness. In its December 16, 2006 *Final*
15 *Investigatory Order*, the Commission stated that there was merit in determining if
16 utilities should recover arrearage forgiveness separately for CAP participants.
17 The rationale being that if there were no CAP, this amount already would be
18 included in a utility's claim for uncollectible expenses. This is not the case for
19 PPL Electric because the write-offs for OnTrack (i.e., arrearage forgiveness) are
20 over and above the Company's provision for uncollectible accounts and are
21 tracked separately. The three major costs for LIURP include administration,
22 installed measures and services and field support (e.g., promotion of the
23 program, energy education materials, training and computer enhancements).

1 The Company believes that it would be proper to recover all of these costs
2 through the USR.

3
4 Q. What is the basis for PPL Electric's proposal to increase funding for OnTrack?

5 A. As of February 28, 2007, there were nearly 20,000 customers enrolled in
6 OnTrack, and the Company projects a year-end enrollment number of
7 approximately 22,000 customers. PPL Electric's proposal to increase annual
8 funding to \$19 million would allow the Company to maintain enrollment between
9 22,000 to 24,000 customers in OnTrack. PPL Electric believes that this level of
10 enrollment would provide CAP benefits to those customers most in need -- low-
11 income customers who are struggling, but are unable to make all of their utility
12 payments. The Company is not recommending a cap of 24,000 customers;
13 rather, it is an estimate of need for existing customers. The Commission should
14 consider the amount of funding required and the number of customers enrolled in
15 CAP during the annual reconciliation of the USR.

16 PPL Electric suggests offering a meaningful level of CAP benefits to low-
17 income customers who have a demonstrated need (i.e., broken payment
18 agreements). Identifying and serving a core group of customers who would
19 benefit from CAP assistance also helps to define a reasonable spending
20 boundary. As the Commission noted in its *Final Investigatory Order* (page 10):

21
22 "Because we will continue to determine appropriate funding
23 and enrollment levels on a case-by-case basis, we will give
24 due consideration to the effects of CAP program costs on
25 both non-CAP residential customers – particularly low-

1 income customers who are not eligible for CAP – and
2 non-residential customers as part of our deliberation.”
3

4 PPL Electric also is sensitive to the effect of CAP and LIURP expenditures on
5 ineligible customers. The Company urges the Commission to consider the ability
6 of existing residential customers to absorb additional costs. Costs of these
7 programs should not be increased to the point where previously good-paying
8 customers can no longer pay their current bills. PPL Electric believes that the
9 best approach is to identify a target population of customers who will benefit most
10 from participation in a CAP.
11

12 Q. What is the basis for the Company's proposal to increase funding for WRAP?

13 A. PPL Electric has been working with community-based organizations since 1985
14 to provide weatherization measures and services to low-income households
15 through WRAP. From 1985 through 2006, WRAP has assisted over 55,000 low-
16 income customers, both homeowners and renters. Based on household income
17 data from the U.S. Census, the Company believes that there still are thousands
18 of customers who may qualify for WRAP. However, PPL Electric's long
19 experience with WRAP reveals various reasons why many of these customers
20 either do not apply or are ineligible for the program.

21 The key reasons include: (1) customers not following through on referrals
22 to WRAP, (2) property owners refusing to give permission for WRAP measures,
23 (3) customers using less than 6,000 kWh annually and (4) the premise having
24 received WRAP service within the past seven years. Other factors include the
)

1 customer having less than nine months occupancy at the premise, and
2 customers deciding not to follow through with WRAP when they learn that they
3 are not eligible for specific measures (e.g., storm windows). Approximately 40
4 percent of WRAP applicants are renters and some of them close their accounts
5 and/or move before PPL Electric has the opportunity to process and complete
6 WRAP jobs.

7 The proposed increase in annual funding for LIURP (\$6.25 million to \$7.25
8 million) would allow PPL Electric, based on historical costs, types of WRAP jobs
9 (i.e., full cost, low cost and baseload) and previous outreach results, to assist an
10 average of 3,100 customers annually. From 2000 through 2006, approximately
11 2,600 customers annually received WRAP benefits. The proposed increase in
12 funding would allow PPL Electric to serve an estimated 500 more customers
13 annually -- an increase of 19 percent.

14
15 Q. Does PPL Electric plan to offer any new features for either OnTrack or WRAP in
16 2008?

17 A. Yes. If approved by the Commission, PPL Electric proposes several changes to
18 both OnTrack and WRAP in 2008. On February 9, 2005, the Commission
19 approved a two-year CAP pilot at Docket No. M-00051864 for PPL Electric. The
20 primary purpose of the pilot was to reduce energy usage for high-use OnTrack
21 participants. The Company submitted its final report to the Commission on
22 February 1, 2007. As a result of the findings from the pilot, PPL Electric
23 proposes the following changes to OnTrack:

- 1 1. Provide energy education for OnTrack customers who are ineligible for
2 WRAP measures;
- 3 2. Increase the maximum CAP Credits to \$1,800 for electric heat and to
4 \$700 for non-heating accounts¹;
- 5 3. Remove customers from CAP when they exceed their annual CAP Credits
6 limit and evaluate their re-enrollment in the program at the time of their
7 normal re-certification; and
- 8 4. Limit enrollment to six months for customers whose mortgage or rent
9 exceeds their reported income.

10 As noted above, 40 percent of WRAP applicants are renters, and PPL
11 Electric requires approval from the landlord before installing weatherization
12 measures. Because approximately six (6) percent of property owners do not give
13 their permission, the Company proposes to offer baseload WRAP measures to
14 applicants who do not receive landlord approval. Baseload measures include
15 energy education, compact fluorescent lights and appliance replacement (i.e., if
16 the renter owns his or her refrigerator). PPL Electric would like to offer energy-
17 saving kits and/or energy education to low-income customers who are ineligible
18 for WRAP because their annual usage is less than 6,000 kWh. Due to the higher
19 percentage of baseload applicants each year (i.e., customers who do not have
20 electric heat or water heating), the Company suggests offering a maximum of
21 \$200 in low-cost comfort and safety measures, such as window

¹ In its Final Investigatory Order, at Docket No. M-00051923, the Commission recommended that utilities revise their maximum CAP Credits as follows: \$1,800 for electric heat, \$700 for non-heat and \$1,000 for natural gas heat.

1 caulking, for these customers. Finally, PPL Electric proposes to integrate
2 OnTrack education (i.e., guidelines and benefits) with WRAP's energy education
3 process. This proposal is based on findings in the pilot in that: (1) some
4 customers do not fully understand OnTrack and (2) some customers do not know
5 how their energy consumption affects their electric bill.
6

7 Q. Does PPL Electric plan to offer any other changes to its universal service
8 programs?

9 A. Yes, it does. In the *Final Investigatory Order* regarding Customer Assistance
10 Programs at Docket No. M-00051923, the Commission indicated that the most
11 appropriate course of action regarding funding for CAP is to continue its case-by-
12 case review as part of each utility's three-year universal service plan under 52
13 Pa. Code § 54.74. The Order, on page 19, also directs ". . . that Commission
14 regulations be amended so that (1) a utility's CAP rules are placed in its tariff, (2)
15 the triennial update filing take the form of a tariff filing and (3) adjustments to the
16 CAP surcharge be addressed in the same tariff filing." Because PPL Electric's
17 three-year plan is due to the Commission on June 1, 2007, the Company
18 proposes to include a review and approval of the plan as part of this filing for
19 increased distribution service rates. The plan, which follows the organizational
20 format established by the Commission, includes a description of OnTrack,
21 WRAP, Operation HELP and CARES. Exhibit TRD 3 provides a copy of the
22 proposed three-year universal service plan. The Company will include the plan
23 as an appendix to its retail tariff in the tariff supplement it will file in compliance
)

1 with the final order issued by the Commission at the conclusion of this
2 proceeding.

3
4 II. Sustainable Development Program

5 Q. What has been PPL Electric's involvement and approach to community and
6 economic development efforts?

7 A. Promoting community and economic development has been an important
8 objective for PPL Electric for decades. The Company believes that the health
9 and vitality of local communities and cities contributes to the long-term success
10 of PPL Electric. As economic development agencies in PPL Electric's service
11 area matured, the Company changed its approach to providing occasional
12 financial contributions. The Company has continued to provide leadership
13 resources and guidance so that local economic development groups can
14 effectively execute their strategies and plans. PPL Electric's eight (8) Regional
15 Community Relations Directors work closely with community leaders and serve in
16 key leadership roles in various organizations in central and eastern
17 Pennsylvania.

18 PPL Electric encourages quality planning to make the most efficient use of
19 existing infrastructure, and promotes the merits of regional cooperation for
20 community and economic development. Companies or their agents looking to
21 locate a new facility or to expand an existing operation expect cooperation and
22 coordination, rather than a piecemeal, parochial approach to development. A
23 critical complement to regionalism is developing comprehensive approaches that
)

1 combine elements of traditional economic development (e.g., proactive
2 infrastructure and land development) with smart growth efforts to plan and focus
3 the resulting development intelligently to minimize unnecessary sprawl. There
4 must be accompanying strategies that look at communities as a whole and map
5 out ways to improve the overall quality of life in existing, older communities.
6 People are interested in genuine communities that preserve and build on their
7 unique heritage, provide quality open space and recreation and improve their
8 environment, both physically and socially.

9
10 Q. What types of programs and services does PPL Electric offer?

11 A. PPL Electric supports a variety of efforts ranging from databases to professional
12 development to underwriting interest payments. The Company maintains a
13 searchable database of available properties on a web site, which it promotes
14 nationally. Local organizations can use this database as their own and have their
15 local part of the overall file extracted and provided to interested parties. In a
16 related matter, the Company provides funding for studies to identify new
17 industrial sites or to determine the suitability and development cost of a specific
18 industrial site, including the reuse of "Brownfield" sites.

19 PPL Electric helps to underwrite fees for the Accredited Economic
20 Development Organization Program of the International Economic Development
21 Council. This program also supports professional development and training for
22 economic development staff in local communities.

1 The Company underwrites 50 percent of interest charges on funds
2 borrowed by an eligible economic development organization to construct or
3 acquire speculative industrial buildings. The interest subsidy, up to a maximum
4 of \$30,000 annually, continues until the organization sells or leases the building,
5 up to a maximum of three years. PPL Electric uses its land acquisition program
6 to stimulate the purchase and development of land by eligible nonprofit economic
7 development organizations. PPL Electric reviews proposals and makes
8 selections on a competitive basis. The Company's Blue Ribbon Marketing
9 Program offers financial and technical assistance for prospect development and
10 marketing activities. Organizations can receive up to 75 percent of the cost of
11 each marketing initiative, up to a maximum of \$7,500 per project. Eligible
12 activities include: regional marketing campaigns, web site design, and marketing
13 studies and plans.

14
15 Q. Does PPL Electric plan to offer any new community and economic development
16 programs in 2008?

17 A. Yes, PPL Electric proposes to implement a new program called the Sustainable
18 Development Program ("SDP").

19
20 Q. What is the primary purpose of the SDP?

21 A. The purpose of the SDP is to assist community development organizations in
22 addressing local needs by providing grant funds to encourage the construction of
23 "green" buildings, enhancing smart development by promoting various downtown

1 improvements, and leveraging state funding for regional marketing initiatives that
2 will improve regional cooperation. The program would capture the best of
3 sustainable development themes and benefits, such as:

- 4 ▪ Economic enhancement of communities with underutilized assets; and
- 5 ▪ Multifaceted environmental benefits gained by refocusing at least some
6 development in downtowns and by reducing the environmental and energy
7 inefficiency tolls that sprawl causes through the growing consumption of
8 raw land and the spread of development over ever greater distances.

9
10 Q. What is the proposed level of funding for the SDP?

11 A. PPL Electric recommends funding of \$1.25 million annually for a period of three
12 years (2008 through 2010). As shown in the following table, the funding would
13 cover the three program elements associated with the SDP.

14

Program Element	Proposed Annual Funding
LEED Certification	\$ 150,000
Downtown Development	1,000,000
DCED Regional Marketing	100,000
Total	\$1,250,000

15 LEED = Leadership in Energy and Environmental Design

16 DCED = PA Department of Community & Economic Development

17
18 PPL Electric would revisit the SDP in mid-2010 to determine if the program
19 should continue beyond the initial three-year commitment.

20
21 Q. How does PPL Electric propose to recover the costs of the SDP?

22 A. The Company proposes to reflect the costs as an expense in base rates, which
23 would be allocated to all customer classes.

1

2 Q. Would the Company still implement the SDP if the Commission decides to
3 disallow some or all of the proposed funding by customers?

4 A. If the Commission were to disallow all funding for the SPD, PPL Electric would
5 not implement the program. Similarly, if the Commission were to reduce by
6 some amount the proposed funding level for the program, the Company would
7 modify the SPD to reflect the funding amount approved by the PUC.

8

9 Q. What are the key features of the Sustainable Development Program?

10 A. As noted above, the SDP would have three primary components: LEED
11 certification, Downtown Development and DCED partnership for regional
12 marketing initiatives. Rather than building sprawling new systems, PPL Electric
13 has encouraged quality planning to make the most efficient use of existing
14 infrastructure, including the Company's electric infrastructure. To help address
15 what the Brookings Institute called the "spreading out and hollowing out effect,"
16 the Company has steadily increased its leadership and financial support for local
17 organizations that combine economic development and environmental
18 awareness. The proposed LEED certification initiative dovetails with PPL
19 Electric's approach, which the Company clearly demonstrated when it worked
20 with Liberty Property Trust to obtain LEED Gold level certification for the PPL
21 Plaza building in downtown Allentown.

22 Regarding the downtown development initiative, PPL Electric would
23 identify local entities that meet a threshold of organization designed to plan

1 effectively for their future. The threshold criteria would include evidence of a
2 robust Business Improvement District, a Main Street Program or, at a minimum,
3 a comprehensive and adopted downtown development and preservation plan.

4 The Pennsylvania Department of Community and Economic Development
5 intends to launch a major new program during the first quarter of 2007. The
6 purpose of the new program is to fund regional cooperative marketing efforts that
7 effectively follow up on the IBM Consulting plan for Pennsylvania economic
8 development marketing. For the state to move to the next level of sustainable
9 economic development, it must promote cooperation and coordination and
10 reduce parochialism. By providing matching grants (i.e., "hard money") for this
11 initiative, PPL Electric will enable local economic development organizations to
12 enhance the quality of their proposed regional marketing funding requests to
13 DCED and, ultimately, to strengthen the effectiveness of their cooperative efforts
14 to bring new jobs to Pennsylvania.

15
16 Q. What are some of the specific elements associated with the SDP?

17 A. The LEED certification program, which the U.S. Green Building Council
18 administers, is growing steadily throughout the nation. As noted above, the
19 Company proposes to provide grants of \$150,000 annually to encourage building
20 developers to enter the certification process. PPL Electric would offer grants up
21 to \$15,000 for LEED Gold certification and lesser amounts for lower-level
22 certifications. In addition, the Company would provide \$3,500 per application to
23 cover the cost of pre-certification of the building core and shell.

1 Viable organizations that meet the funding requirements for the Downtown
2 Development initiative would be eligible to receive grants, awarded on a
3 competitive basis, for the following activities:

- 4 ▪ Comprehensive management of a downtown organization
- 5 ▪ Architectural and construction management services
- 6 ▪ Streetscape improvements
- 7 ▪ Marketing materials or refinement of an existing downtown plan

8 Out of total proposed budget of \$1 million, PPL Electric would set a maximum
9 grant award of \$100,000 per municipality. This initiative would focus on
10 downtown management organizations in municipalities with a population of at
11 7,500, or are members of a multi-municipality Main Street consortium.

12 PPL Electric proposes to offer matching grants up to a total of \$100,000
13 annually for DCED's new program. Participation in the regional marketing
14 program will require cooperation between counties that have a well-conceived
15 plan and strategy that must coordinate with DCED and IBM Consulting. The
16 purpose is to identify industry clusters and regional economic development
17 advantages relative to those clusters. PPL Electric believes that regional
18 approaches to economic development, which rely on sound research and
19 planning, will provide greater benefits to local communities.

20
21 Q. What would be the timing for the SDP?

22 A. If approved for implementation by the Commission, PPL Electric would begin the
23 LEED certification initiative in January 2008. The Company, through its
24)

1 extensive network of economic and community development organizations,
2 would begin to identify projects and meet with building developers and other
3 economic develop professionals to explain the grant program. Similarly, PPL
4 Electric would identify organizations in municipalities that would qualify for
5 Downtown Development grants and conduct meetings by the end of March 2008
6 to discuss this new initiative. The Company proposes to evaluate funding
7 proposals and select grantees by May 2008 and release funding by June of the
8 same year. Finally, PPL Electric would complete meetings by April 2008 with
9 local economic development organizations to explain DCED's regional marketing
10 initiative and the Company's initiative to provide matching grants to support this
11 statewide program.

12)
13 Q. Why is PPL Electric proposing the Sustainable Development Program?

14 A. In addition to providing reliable and competitively priced-electricity, organizations
15 throughout PPL Electric' service area believe that the Company is a vital and
16 necessary partner in addressing their needs and concerns. PPL Electric does
17 not operate in a vacuum. Social, economic and political factors affecting local
18 communities also affect PPL Electric. The Company and its employees are an
19 important part of the fabric of society in central and eastern Pennsylvania. There
20 is a clear link between the prosperity of PPL Electric and its service area. More
21 jobs, a sounder economy, environmental improvements and infrastructure
22 enhancements provide benefits to many. Collaborating with local community

1 organizations and state government creates synergies that improve the reach
2 and effectiveness of programs.

3 The Sustainable Development Program is simply a logical extension of
4 PPL Electric's well-established efforts to improve the quality of life in local
5 communities. The focus on sustainable development themes provides the
6 unique opportunity to achieve hand-in-hand improvement in environmental, as
7 well as economic development areas. Helping to refocus development in
8 downtowns provides benefits in both areas.

9
10 Q. Does this conclude your direct testimony?

11 A. Yes, it does.

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Docket No. R-00072155

PPL Electric Utilities Corporation

Statement No. 9

Direct Testimony of Robert T. Homa

2007 MAR 29 PM 12:53
PA PUC
SECRETARY'S BUREAU

- 1 Q. Please state your full name and business address.
- 2 A. My name is Robert T. Homa. My business address is Two North Ninth Street,
3 Allentown, Pennsylvania, 18101.
- 4
- 5 Q. By whom are you employed and in what capacity?
- 6 A. I am employed by PPL Electric Utilities Corporation ("PPL Electric" or "the
7 Company"), a subsidiary of PPL Corporation. I work in the Asset Management
8 Department and my title is Program Manager.
- 9
- 10 Q. Please describe your primary responsibilities in that position.
- 11 A. As Program Manager, I am responsible for developing and implementing
12 Demand-Side Management Programs. Demand-Side Management ("DSM")
13 includes energy efficiency and conservation programs that permit customers to
14 reduce their energy consumption and demand response programs that permit
15 customers to reduce their peak electric demand.
- 16
- 17 Q. What is your educational background?
- 18 A. I graduated from the University of Delaware in Newark, Delaware in 1985 with a
19 Bachelor of Engineering degree in Electrical Engineering. In 2004, I earned a
20 Master of Science degree in Engineering Management from Drexel University in
21 Philadelphia, Pennsylvania.
- 22
- 23 Q. Are you a registered Professional Engineer?

1 A. Yes. I have been a registered Professional Engineer in the Commonwealth of
2 Pennsylvania since 1993. My registration number is PE-044305-E.

3
4 Q. Please describe your professional experience.

5 A. I joined the Marketing and Economic Development department of PPL Electric's
6 predecessor, Pennsylvania Power and Light Company ("PP&L"), in 1986 as an
7 Engineer-Level I, working with small to mid-size Industrial and Commercial
8 ("I&C") customers to address electric service issues and to promote the efficient
9 use of electric energy. I was heavily involved with helping new and existing
10 customers select the most energy efficient heating, ventilating, air conditioning
11 ("HVAC"), and lighting systems.

12 During the 1989 through 1995 time period, I was promoted through
13 positions involving increasing responsibility for assisting large customers with
14 energy use decisions. As a Power Engineer within that department, I worked
15 with mid to large-size I&C customers. As a Key Account Manager, I was
16 responsible for strategic account management of a segment of PPL Electric's
17 largest I&C customers. In both of these positions, a significant portion of my
18 duties involved working with new and existing customers on selecting HVAC
19 systems, improving industrial process efficiency, and conducting comparative
20 rate analyses.

21 In 1996, I was promoted to the position of Market Segment Manager for
22 PPL Electric's Commercial Services group. In this position, I was responsible for
23 the development of strategy, business plans, and program plans for PPL

1 Electric's Commercial Services customer segment. Additionally, I co-developed
2 1-year and 5-year marketing plans, and developed plans for electric demand
3 management and lighting retrofit programs.

4 In 1998, I transferred to a newly formed unregulated retail marketing group
5 (which became PPL EnergyPlus, LLC) and assumed the role of Program
6 Manager for Affinity Marketing. In this role, I was responsible for the
7 development and implementation of PPL EnergyPlus' affinity-marketing program
8 for the sale of commodity electricity to small non-residential retail electric
9 customers.

10 In 1999, I transferred to PPL EnergyPlus' field sales organization. I was
11 responsible for developing and executing account strategies related to the sale of
12 commodity electricity and natural gas to customers in numerous Pennsylvania
13 utility service territories. During this time, I also expanded and managed PPL
14 EnergyPlus' retail natural gas marketing program.

15 In 2000, I returned to PPL Electric and assumed the role of internal
16 consultant in its newly formed Business Consulting Group. In that role, I led
17 numerous strategy development and process improvement projects. Specific
18 project assignments included the development of the Company's regulatory and
19 rate structure strategies, a plan to establish an internal project management
20 office, and an improvement in the Company's methodology for forecasting
21 quantities of physical work.

22 In 2004, I transferred to PPL Services and assumed the role of Information
23 Technology Account Manager. The primary responsibilities of that role were to

1 manage the relationship between PPL Electric and the Information Services
2 Department. During this time, I was responsible for the integration of business
3 and information technology strategies and the proactive identification of PPL
4 Electric's future technology requirements.

5 In 2007, I returned to PPL Electric to assume my current role as Program
6 Manager where I am developing DSM programs.

7
8 Q. Have you previously testified as a witness before the Pennsylvania Public Utility
9 Commission ("PUC")?

10 A. No, I have not.

11
12 Q. What is the purpose of your testimony in this proceeding?

13 A. The purpose of my testimony is to discuss the Company's proposed DSM
14 program portfolio and its proposed mechanism for the recovery of costs
15 associated with those programs.

16
17 **Demand Side Management**

18 Q. What DSM programs is PPL Electric proposing in this rate proceeding?

19 A. There are five (5) programs included in the Company's proposed DSM portfolio.

20 They are:

- 21 • Demand-Side Management Education Program
22 • Energy Efficient Equipment Rebate Program
23 • Energy Alerts Program

- 1 • Time-of-Use Pricing Program
- 2 • Time-of-Use Pricing for Residential Thermal Storage Customers Program

3
4 Q. Provide a brief description of each program.

5 A. Demand-Side Management Education Program – This is a multi-faceted
6 consumer-based energy education program. Target audiences include
7 residential and small business customers. The objectives of the program are: (1)
8 to create awareness among customers of factors that influence their
9 consumption of electricity, and (2) to provide customers with information on
10 specific opportunities to reduce their energy consumption through energy
11 efficiency and conservation measures, if they should desire to do so. The
12 Company expects to deliver educational material and messages through a
13 number of channels, including the Company's Connect newsletter, bill inserts,
14 on-line messaging via the Company's Internet site, school partnerships, and
15 presentations via the Company's Speakers Bureau.

16 To maximize program effectiveness, the Company will look to collaborate
17 with others in the industry known to be respected and effective in this area. For
18 example, the Company currently is considering a partnership with U.S.
19 Environmental Protection Agency's ("EPA") ENERGystar program as a key
20 component of this education program. As a partner, the Company will be able to
21 leverage ENERGystar's brand identity and collateral materials.

1 Energy Efficient Equipment Rebate Program – This is a two-phase energy
2 efficient product rebate program designed to lower the purchase cost of specific
3 consumer items for the Company’s customers. Phase 1 involves compact
4 fluorescent lights and Phase 2 involves programmable thermostats. Target
5 audiences include residential and small business customers. The objective of
6 the program is to encourage retailer stocking and promotion of such equipment
7 through increased consumer demand in the Company’s franchised service
8 territory. Although preliminary consideration is given to point of purchase
9 rebates, other channels also are under consideration, including fundraisers via
10 schools/civic organizations and giveaways at Company-sponsored Energy
11 Efficiency events. This is a defined duration program with a specific number of
12 rebates/product to be provided through 2010.

13 Energy Alerts Program – As described in Mr. Krall’s testimony, the
14 Company is in the process of implementing a new Meter Data Management
15 System (“MDMS”) to augment the capabilities of its Automated Meter Reading
16 (“AMR”) system. The MDMS will give all customers, among other capabilities,
17 tools for energy usage analysis.

18 The proposed Energy Alerts Program will lever these tools to provide
19 eligible customers with the ability to elect proactive alerts customized to their
20 energy-use characteristics. Customers wishing to participate will need to
21 complete a comprehensive home or business energy profile and to subscribe to
22 the proactive energy alerts offering. The objective of the program is to help

1 participating customers reduce their energy costs by stimulating energy-
2 conscious behaviors and decisions through tailored information.

3 Initially, participating customers will receive periodic alerts offering energy
4 efficiency/conservation information. The alerts will be based on the information
5 customers enter as part of their comprehensive energy profile. As it accumulates
6 hourly electric consumption details for program participants through the
7 integration of its AMR and MDMS, the Company anticipates increasing its ability
8 to communicate with customers regarding their specific energy consumption
9 trends and potential savings available through other Company-offered DSM
10 programs.

11 Time of Use Pricing Program – This is a demand-side response (“DSR”)
12 program, which will provide information and a market-based pricing structure to
13 participating customers to encourage the reduction of electric demand in
14 response to price signals. The Company may find that a financial incentive is
15 required to attract customer participation. Target audiences include residential
16 and small business customers. Objectives of this program are to: (1) make
17 customers aware of market price volatility and how they can participate in
18 competitive markets through demand response, (2) educate the Company about
19 demand response behaviors exhibited by customers, and (3) identify technology
20 and business process issues associated with facilitating demand response
21 programs.

22 Currently, the Company offers two DSR programs; they are: (1) the
23 Demand Side Initiative Rider for eligible large I&C customers and (2) the

1 Demand Side Response Rider – Residential. Both programs are pilots with
2 capped enrollment. The I&C pilot allows eligible customers to designate a
3 portion of their electric load for market pricing and is a yearly program. The
4 residential pilot provides for fixed on-peak and off-peak prices, thereby enabling
5 customers to save on electric costs by shifting electricity use to off-peak hours.
6 The I&C program is year-round and prices are based on day-ahead hourly
7 pricing. The residential program presently is summertime only; however, the
8 Company intends to provide year-round prices for interested customers in 2010.

9 The proposed Time-of-Use Pricing program also is a demand response
10 program. However, this program will provide price signals to residential and
11 small business customers that are reflective of on-going market conditions and
12 will vary regularly throughout the entire year. Pricing options under consideration
13 include Day Ahead, Real Time, and Critical Peak Prices. The Company will
14 choose price signal(s) based on customer input and the availability of
15 communication technology.

16 Time-of-Use Pricing for Residential Thermal Storage (“RTS”) customers –
17 Rate Schedule RTS was established in the early 1980s. There are
18 approximately 13,000 customers on the rate schedule today. It is a time-of-day
19 residential service rate schedule for customers with load management
20 capabilities. The rate schedule was designed to offer a rate incentive to
21 customers who chose to install electric space and water heating with thermal
22 storage capability. RTS systems enable customers to charge their heating

1 systems during a self-selected off-peak period. Off-peak time period options are
2 5 PM–7 AM, 6 PM–8 AM, and 7 PM–9 AM.

3 The rate schedule is closed. The Company is interested in working with
4 customers currently served on Rate Schedule RTS to explore options for dealing
5 with the rate schedule and associated RTS heating systems. There are a
6 *number of related issues:*

- 7 • Because the rate schedule was established in the early 1980s, existing
8 customer heating equipment tends to be nearing the end of its useful life.

9 This is compounded by the fact that there are a variety of technologies in use,
10 some of which are prone to unique problems, and some of which have
11 become obsolete and expensive or impossible to maintain.

- 12 • Many RTS systems exist in homes that have been sold at least one time
13 since the original owners installed them. Current owners may be unfamiliar
14 with the systems.

- 15 • Almost all existing customers have selected the 5 PM–7 AM off-peak period.
16 The systems begin to charge, and register their highest demand, at the time
17 when wintertime hourly prices in the PJM market are at their highest.

18 The proposed initiative is a demand-side response program that will begin with
19 *an investigation of customer options for dealing with these and other issues.* The
20 Company anticipates, at a minimum, offering eligible participants relevant
21 information and a market-based pricing structure to encourage system charging
22 outside PJM's highest price periods. The Company may find that a financial
23 incentive is required to attract customer participation. Rate Schedule RTS

1 customers are the intended target audience. The objectives of this program are
2 to: (1) make customers aware of market price volatility and how they can
3 participate in competitive markets, while making use of the functionality already
4 available in their RTS systems, (2) help the Company understand the
5 opportunities and problems associated with thermal storage systems in a
6 competitive energy market, and (3) identify technology and business process
7 issues related to a broader roll-out of this proposed pilot program.
8

9 Q. What is the basis for selecting programs to be included in the DSM portfolio?

10 A. There are three key factors that led to the selection of the proposed DSM
11 initiatives. They are: (1) Market Transformation Strategy, (2) Customer
12 Research, and (3) Impact Criteria.

13 Market Transformation Strategy – The Company's DSM portfolio is based
14 on a market transformation strategy to accomplish program goals. Strictly
15 speaking, market transformation is a strategy that promotes the manufacture and
16 purchase of certain products and services. As applied to the implementation of
17 DSM programs, market transformation is a strategy to induce lasting structural
18 changes in the marketplace, resulting in increased adoption of energy-efficient
19 technologies and behaviors. Market players, such as the EPA and the
20 Department of Energy, are working up-stream of consumers and affecting
21 general changes in energy efficiency. Other initiatives such as EPA's
22 ENERGYSTAR program are focused mid-stream on helping partners (including
23 electric utilities) promote energy efficiency messages. PPL Electric's program

1 focuses down-stream directly on consumers. The Company's strategy is
2 intended to promote energy-conscious behavioral changes by consumers.

3 There are a number of important market barriers related to DSM
4 initiatives, including lack of consumer awareness of energy efficient products and
5 their benefits, resistance to new products in general, and over-emphasis on first
6 cost over lifecycle costs/benefits. The Company's strategy is focused on
7 overcoming these market barriers through education and consumer awareness
8 initiatives at the consumer level. Incentives (such as rebates) will be used to
9 jumpstart sales and to raise awareness of new energy efficient products.

10 Customer Research – The Company conducted preliminary customer
11 research in February and March of 2007 to identify, among other things,
12 customer preferences regarding DSM program offerings. Preliminary findings
13 indicate that there may be broad customer interest in energy efficiency and
14 conservation education; energy efficient equipment rebates, such as compact
15 fluorescent lights; and the use of e-mail for communicating energy efficiency
16 information. The Company's research also indicates that there are groups of
17 customers interested in time-of-use pricing programs. This finding is consistent
18 with research done earlier for the Residential DSR pilot. The Company's
19 secondary research looked at DSM programs in other states and at other electric
20 utilities. The Company's proposed DSM offerings also are consistent with this
21 research.

22 Impact Criteria – The Company's proposed DSM initiatives were selected
23 to meet the following criteria: (1) potential to effectively reduce consumer energy

1 costs, (2) cost effective to deploy and manage, and (3) the Company's ability to
2 deliver and support.

3
4 Q. What approach will PPL Electric take in implementing its DSM programs?

5 A. The Company's approach to DSM program implementation is to include a mix of
6 energy conservation, energy efficiency, and demand response programs for its
7 residential and small business customers. The Company will ramp-up program
8 deployment, participation, and complexity over time. Education is the foundation
9 of all proposed DSM programs. In addition, the Company will lever information
10 technology investments, such as its AMR and MDMS and its enhanced Internet
11 website capabilities.

12 DSM program deployment will be sequenced to optimize the use of
13 Company resources, including personnel and budgets. Further, proper
14 sequencing will help to maximize customer receptivity and acceptance through
15 an increasing level of customer awareness. The Company believes that its
16 program deployment schedule is appropriate given the approaching end of rate
17 caps and the emergence of statewide energy efficiency and demand-side
18 response efforts. Accordingly, the proposed DSM portfolio of programs is
19 grouped into two categories as follows:

20 Category 1 – Programs in this category can be developed and deployed in
21 the near term (2007 - 2008) and will be a priority due to their relevance to market
22 transformation. Additionally, they are critical for increasing awareness so that
23 other more complex messages can be effective. Although these programs must

1 be carefully developed, they require the least amount of technical and process
2 sophistication within the proposed DSM portfolio. Category 1 programs are:

- 3 • Demand-Side Management Education Program
- 4 • Energy Efficient Equipment Rebate Program
- 5 • Energy Alerts Program

6 Category 2 – Programs in this category also are highly desirable;
7 however, they require greater technical sophistication and, as such, require more
8 time for development. Additionally, these programs are more constrained
9 because of the availability of capped below-market generation rates to
10 customers. The Company intends to develop and deploy the following programs
11 in the 2008–2009 time frame. Category 2 programs are:

- 12 • Time-of-Use Pricing Program
- 13 • Time-of-Use Pricing for Residential Thermal Storage Customers

14 An overarching design consideration relates to managing technology and
15 process risks. Therefore, the Company will employ rigorous development
16 practices for all programs and will control implementation of the more technically
17 complex programs with pilots. Pilots will provide the Company with an
18 opportunity to test implementation details and customer acceptance. Further,
19 because the Company will assess customer demand response, control groups
20 will need to be studied along with program participants, thereby increasing the
21 magnitude of effort related to measuring and evaluating the programs.

22
23 Q. What are the expected benefits of the proposed DSM programs?

1 A. The Company expects to improve consumer awareness of energy and non-
2 energy benefits of energy efficiency and conservation measures, increase the
3 demand for energy efficient products, and increase the willingness of customers
4 to engage in changed behaviors. The Company believes that the proposed DSM
5 initiatives will enable both residential and small business customers to exercise
6 control over their energy costs, understand how their usage and electric prices
7 vary, and how to manage electric consumption for their own economic benefit.
8 Further, the Company expects to learn about customer behaviors and
9 preferences related to time-of-use pricing structures. The Company also expects
10 to identify ways to lever its technology investments to deliver increased value to
11 customers in the future.

12
13 Q. Are PPL Electric's DSM programs ready for implementation?

14 A. No, they are not. The list of programs in the proposed DSM portfolio is based on
15 the Company's research findings. The Company currently is working on the
16 design and development of these programs. As described in Mr. Krall's
17 testimony, the Company is seeking approval to pursue development of these
18 programs and to recover in rates the \$2.7 million these programs are expected to
19 cost annually. The development phase is critical to ensuring cost-effective
20 program characteristics, such as quantity and value of equipment rebates and
21 program participation limits. The Company also will identify and develop
22 processes required for effective implementation.

1 Q. Can all residential and small business customers participate in these programs?

2 A. Although the Company believes that all customers benefit from effective DSM
3 efforts, this group of proposed programs is intended for specific, and in most
4 cases, limited target audiences. The Company believes that success for all DSM
5 programs can be defined in terms of customer acceptance, demand
6 management performance, and cost effectiveness. The Company also believes
7 that restricting participation is essential during the development process so that it
8 can learn how to optimize these factors. This does not mean that the Company
9 is ignoring the needs of its broad customer base. Mr. Krall describes the
10 consumer education program that the Company proposes to deliver broadly to all
11 customers.

12
13 Q. How does PPL Electric plan to determine eligibility for each of the proposed
14 programs?

15 A. The approach for determining eligibility for each program will be different and
16 based on the program's intent and the technical complexity of the offering.

17 • Demand-Side Management Education Program – This program will be
18 designed around specific delivery channels so that there is maximum
19 opportunity for the target audiences to learn about the benefits of changing
20 energy-related behaviors.

21 • Energy Efficient Equipment Rebate Program – This program will provide a
22 generous, but limited, quantity of rebates/product consistent with the tenets of
23 market transformation. As mentioned earlier, program development findings

1 will be used to establish the final details on quantity and value of the
2 proposed incentives.

- 3 • Energy Alerts, Time-of-Use Pricing, and Time-of-Use Pricing for Rate
4 Schedule RTS Customers – These programs are more technically complex
5 than the others. The Company intends to run these programs as pilots to
6 ensure that implementation details and customer acceptance can be tested
7 thoroughly. Although the level of participation for each of these programs has
8 not been established, it will be similar to the Company's DSR initiative, which
9 started with 200 customers.

10
11 Q. What initiatives is PPL Electric proposing for large Industrial and Commercial
12 customers?

13 A. As the Company has demonstrated over the years, it is very responsive to the
14 needs of all customer classes. Although this proposed portfolio of programs is
15 targeted to residential and small business customers, the Company continues to
16 support all other rate classes through other efforts and initiatives. For example,
17 and as detailed in Mr. Krall's testimony, the implementation of the Company's
18 MDMS will help:

- 19 • All customers participate in the new market environment by providing new
20 tools to understand and manage their electric bills;
- 21 • Support generation purchases at the end of the rate cap period for all
22 customers whether they are shopping or not; and

- 1 • Provide suppliers with enough detail to enable them to offer customers a
2 variety of other demand-side programs.

3 The Company also believes that the residential and small business customer
4 classes will require the most support to benefit from existing market alternatives.
5 For example, mid to large-size I&C customers can benefit directly through
6 existing PJM initiatives, industry organizations, consultants, and lobbying
7 organizations.

8 Additionally, consistent with the fact that programs are targeted at small
9 customers, the Company is proposing that estimated costs be recovered only
10 from residential customers on Rate Schedules RS, RTS, and RTD and small
11 business customers on Rate Schedule GS-1.

12
13 Q. What level of annual DSM funding is PPL Electric proposing to recover in rates?

14 A. The Company proposes to recover, through rates, annual funding of \$2,688,000
15 for the five programs described above. This is a preliminary estimate of costs
16 based on an initial assessment and prior program experience. These estimates
17 are subject to change based on insights resulting from program development
18 activities and other developments, such as finalized regulations regarding (1) the
19 role of default service providers in the post-generation cap environment and (2)
20 the scope of efforts that are to be taken to mitigate the impacts of potential price
21 increases.

22 Program costs reflect typical categories of expense, such as; labor and
23 expenses for developing and managing the initiatives, market research,

1 marketing communications, back office support, customer incentives,
2 promotional activities, training, and information technology. The Company does
3 not anticipate any capital expenditures associated with the five programs
4 proposed in this filing.

5 Because the Company is committed to delivering effective programs that
6 appeal to its customers, it will employ various customer surveys through the
7 lifecycles of the initiatives. Doing so will help the Company deploy effective
8 programs that customers want, help the Company improve the initiatives while
9 they are underway, and will help the Company learn of future opportunities to
10 assist customers with energy-related tools and choices. It is likely that this
11 customer input will affect program expenses in the 2009-2011 period.

12
13 Q. How does PPL Electric intend to recover funding of its DSM programs?

14 A. The Company proposes to recover all costs associated with its proposed DSM
15 programs through a reconcilable surcharge that would become effective on
16 January 1, 2008. Due to variability and uncertainty of costs associated with
17 deploying and managing programs, the Company proposes that a new Energy
18 Efficiency Rider ("EER") be established as an efficient and effective mechanism
19 to reconcile actual program expenses on an annual basis for the applicable rate
20 schedules.

21 The DSM programs proposed in this filing are targeted to residential and
22 small business customers. As such, the Company proposes to recover program
23 costs from customers served on Rate Schedules RS, RTS, RTD, and GS-1 on a

1 percentage basis consistent with the revenue contribution of each of these rate
2 schedules. Mr. Kleha discusses the details of the design and implementation of
3 the EER in his direct testimony.

4

5 Q. Does this conclude your direct testimony?

6 A. Yes, it does.

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Docket No. R-00072155

PPL Electric Utilities Corporation

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Statement No. 10

Direct Testimony of John J. Spanos

DIRECT TESTIMONY OF JOHN J. SPANOS

1 Q. Please state your name and address.

2 A. John J. Spanos. My business address is 207 Senate Avenue, Camp Hill,
3 Pennsylvania.

4 Q. With what firm are you associated?

5 A. I am associated with the firm of Gannett Fleming, Inc.

6 Q. How long have you been associated with Gannett Fleming, Inc.?

7 A. I have been associated with the firm since June 1986, following graduation from
8 college.

9 Q. What is your position in the firm?

10 A. I am a Vice President.

11 Q. What is your educational background?

12 A. I have Bachelor of Science degrees in Industrial Management and Mathematics
13 from Carnegie-Mellon University and a Master of Business Administration from
14 York College of Pennsylvania.

15 Q. Are you a member of any professional societies?

16 A. Yes. I am a member of the Society of Depreciation Professionals and the
17 American Gas Association/Edison Electric Institute Industry Accounting
18 Committee.

19 Q. Have you taken the certification examination for depreciation professionals?

20 A. Yes, I passed the certification examination of the Society of Depreciation
21 Professionals in September 1997 and was recertified in August 2003.

22 Q. Will you outline your experience in the field of depreciation?

1 A. In June 1986, I was employed by Gannett Fleming Valuation and Rate
2 Consultants, Inc. as a Depreciation Analyst. During the period from June 1986
3 to December 1995, I took part in the preparation of numerous depreciation and
4 original cost studies for utility companies in various industries. Depreciation
5 studies of telephone companies were performed for United Telephone of
6 Pennsylvania, United Telephone of New Jersey and Anchorage Telephone
7 Utility. My work in the railroad industry included depreciation studies for Union
8 Pacific Railroad, Burlington Northern Railroad and Wisconsin Central
9 Transportation Corporation.

10 Assignments in the electric industry included depreciation studies for
11 Chugach Electric Association, The Cincinnati Gas and Electric Company, The
12 Union Light, Heat & Power Company, Northwest Territories Power Corporation
13 and the City of Calgary - Electric System. Pipeline industry assignments
14 included studies for TransCanada Pipelines Limited, Trans Mountain Pipe Line
15 Company Ltd., Interprovincial Pipe Line Inc., Nova Gas Transmission Limited
16 and Lakehead Pipeline Company.

17 My work for the gas industry included depreciation studies for Columbia
18 Gas of Pennsylvania, Columbia Gas of Maryland, The Peoples Natural Gas
19 Company, T. W. Phillips Gas & Oil Company, The Cincinnati Gas and Electric
20 Company, The Union Light, Heat & Power Company, Lawrenceburg Gas
21 Company and Penn Fuel Gas, Inc. Assignments in the water industry included
22 depreciation studies for Indiana-American Water Company, Consumers
23 Pennsylvania Water Company and The York Water Company; and depreciation

1 and original cost studies for Philadelphia Suburban Water Company and
2 Pennsylvania-American Water Company.

3 My participation in each of the above studies included assembly and
4 analysis of historical and simulated data, field reviews, the development of
5 preliminary estimates of service life and net salvage, calculations of annual
6 depreciation, and the preparation of reports for submission to state or provincial
7 public utility commissions or federal regulatory agencies. I performed these
8 studies under the general direction of William M. Stout, P.E., the President of
9 Gannett Fleming Valuation and Rate Consultants, Inc.

10 In January 1996, I was assigned to the position of Supervisor of
11 Depreciation Studies. In July 1999, I was promoted to the position of Manager,
12 Depreciation and Valuation Studies. In December 2000, I was promoted to my
13 current position as Vice President of Gannett Fleming Valuation and Rate
14 Consultants, Inc. I am responsible for all depreciation, valuation and original
15 cost studies, including the preparation of final exhibits and responses to data
16 requests and interrogatories for submission to the appropriate regulatory body.

17 Since January 1996, I have conducted depreciation studies similar to
18 those previously listed, including assignments for Hampton Water Works
19 Company, Omaha Public Power District, Enbridge Pipe Line Company, Inc.,
20 Columbia Gas of Virginia, Inc., Virginia Natural Gas Company, National Fuel
21 Gas Distribution Corporation - New York and Pennsylvania Divisions, The City
22 of Bethlehem - Bureau of Water, The City of Coatesville Authority, The City of
23 Lancaster - Bureau of Water, Peoples Energy Corporation, The York Water
24 Company, Public Service Company of Colorado, Reliant Energy-HLP,

1 Massachusetts-American Water Company, St. Louis County Water Company,
2 Missouri-American Water Company, Chugach Electric Association, Alliant
3 Energy, Oklahoma Gas and Electric Company, Nevada Power Company,
4 Dominion Virginia Power, NUI-Virginia Gas Companies, PSI Energy, NUI -
5 Elizabethtown Gas Company, Cinergy Corporation – CG&E, Cinergy
6 Corporation – ULH&P, Columbia Gas of Kentucky, SCANA, Inc., Idaho Power
7 Company, El Paso Electric Company, Central Hudson Gas & Electric,
8 Centennial Pipeline Company, CenterPoint Energy-Arkansas, CenterPoint
9 Energy – Oklahoma, CenterPoint Energy – Entex, CenterPoint Energy -
10 Louisiana, NSTAR – Boston Edison Company, Westar Energy, Inc., South
11 Jersey Gas Company, Duquesne Light Company, MidAmerican Energy
12 Company, Laclede Gas, Duke Energy Company, Bonneville Power
13 Administration, NSTAR Electric and Gas Company, EPCOR Distribution, Inc.
14 and B. C. Gas Utility, Ltd. My additional duties include determining final life and
15 salvage estimates, conducting field reviews, presenting recommended
16 depreciation rates to management for its consideration and supporting such
17 rates before regulatory bodies.

18 Q. What is the extent of your formal instruction regarding utility plant depreciation?

19 A. I have completed the “Techniques of Life Analysis”, “Techniques of Salvage
20 and Depreciation Analysis”, “Forecasting Life and Salvage”, “Modeling and Life
21 Analysis Using Simulation” and “Managing a Depreciation Study” programs
22 conducted by Depreciation Programs, Inc. I also have completed the
23 “Introduction to Public Utility Accounting” program conducted by the American
24 Gas Association.

1 Q. Have you previously testified on public utility ratemaking matters?

2 A. Yes. I have submitted testimony to the Pennsylvania Public Utility
3 Commission, the Commonwealth of Kentucky Public Service Commission, the
4 Public Utilities Commission of Ohio, the Nevada Public Utility Commission, the
5 Public Utilities Board of New Jersey, the Missouri Public Service Commission
6 and the Massachusetts Department of Telecommunications and Energy, the
7 Alberta Energy & Utility Board, the Idaho Public Utility Commission, the
8 Louisiana Public Service Commission, the State Corporation Commission of
9 Kansas, the Oklahoma Corporate Commission, The Public Service Commission
10 of South Carolina, Railroad Commission of Texas – Gas Services Division, the
11 New York Public Service Commission, Illinois Commerce Commission, the
12 Indiana Utility Regulatory Commission, the California Public Utilities
13 Commission, The Federal Energy Regulatory Commission (FERC), the
14 Arkansas Public Service Commission, the Public Utility Commission of Texas,
15 the Regulatory Commission of Alaska, and the North Carolina Utilities
16 Commission.

17 Q. What is the purpose of your testimony?

18 A. My testimony is in support of the depreciation study conducted under my
19 direction and supervision for the utility plant of PPL Electric Utilities Corporation
20 ("PPL Electric").

21 Q. Have you prepared exhibits presenting the results of your study?

22 A. Yes. Exhibit JJS 1 presents the results of the depreciation study as of
23 December 31, 2006 and JJS 2 sets forth the results of the depreciation study as
24 of December 31, 2007. In addition, I am responsible for the responses to

1 Questions V-A-2, V-B-1, V-B-2, V-C-1, V-D-1, V-D-2 and V-E-1 of the Exhibit
2 Regs., § 53.53, Part V - Plant and Depreciation Supporting Data, Including
3 Related Depreciation Study Report.

4 Q. Please describe Exhibits JJS 1 and JJS 2.

5 A. Exhibit JJS 1, titled "Depreciation Study Related to Electric Plant at December
6 31, 2006," includes the results of the depreciation study as related to the
7 original cost at December 31, 2006. The report also includes the detailed
8 depreciation calculations. Exhibit JJS 2, which is titled, "Depreciation Study
9 Related to Electric Plant at December 31, 2007", includes the results of the
10 depreciation study as related to the estimated original cost at December 31,
11 2007. The report also includes explanatory text, statistics related to the
12 estimation of service life, and the detailed depreciation calculations.

13 Q. What was the purpose of your depreciation study?

14 A. The purpose of the depreciation study was to estimate the annual depreciation
15 accruals related to utility plant in service for ratemaking purposes and using
16 Commission-approved procedures to estimate the Company's book reserve at
17 December 31, 2007.

18 Q. Is the Company's claim for annual depreciation in the current proceeding based
19 on the same methods of depreciation as were used in its most recent electric
20 base rate proceeding in Docket No. R-00049255?

21 A. Yes, it is. For most plant accounts, the current claim for annual depreciation is
22 based on the straight line remaining life method of depreciation. For Accounts
23 368, 370, 391, 393, 395, 397 and 398, the claim is based on the straight line
24 remaining life method of amortization. The assets in Accounts 392 and 396 are

1 new to plant in service; however, they will be recovered in a similar fashion to
2 the other amortized accounts. The annual amortization is based on
3 amortization accounting which distributes the unrecovered cost of fixed capital
4 assets over the remaining amortization period selected for each account.

5 Q. What group procedure is being used in this proceeding for depreciable
6 accounts?

7 A. The average service life procedure is used in the current proceeding for all
8 depreciable accounts and installation years. The average service life procedure
9 also was used in this same manner in the Company's most recent base rate
10 proceeding.

11 Q. Has a service life study of the Company's electric utility property been
12 performed?

13 A. Yes. A service life study has been performed through 2006 as a part of this
14 filing. The service life study is the basis for the service lives I used to calculate
15 annual accruals.

16 Q. Briefly outline the procedure used in performing the service life study.

17 A. The service life study consisted of assembling and compiling historical data
18 from the records related to the electric utility plant of the Company; statistically
19 analyzing such data to obtain historical trends of survivor characteristics;
20 obtaining supplementary information from management and operating
21 personnel regarding Company practices and plans as they relate to plant
22 operations; and interpreting the above data to form judgments of service life
23 characteristics.

1 Iowa type survivor curves were used to describe the estimated survivor
2 characteristics of the mass property groups. Individual service lives were used
3 for major individual units of plant, such as large service centers and office
4 buildings, within Account 390.2. The life span concept was recognized by
5 coordinating the lives of associated plant installed in subsequent years with the
6 probable retirement date defined by the life estimated for the major unit.

7 Q. What statistical data were employed in the historical analyses performed for the
8 purpose of estimating service life characteristics?

9 A. The data consisted of the entries made to record retirements and other
10 transactions related to the electric plant through 2006. These entries were
11 classified by depreciable group, type of transaction, the year in which the
12 transaction took place, and the year in which the plant was installed. Types of
13 transactions included in the data were plant additions, retirements, transfers,
14 and balances. In the presentation of service life statistics, only the significant
15 exposure points that were utilized in determining survivor curves were plotted.
16 This process is utilized to show my judgment in service life determinations.

17 Q. What was the source of these data?

18 A. They were assembled from Company records related to its utility plant in
19 service.

20 Q. Were the methods used in the service life study the same as those used in
21 other depreciation studies for electric utility plant presented before this Commis-
22 sion?

23 A. Yes. The methods are the same ones that have been presented previously for
24 PPL Electric and for other electric companies before the Pennsylvania Public

1 Utility Commission, and that have been accepted by the Commission in its past
2 orders regarding electric utilities.

3 Q. What approach did you use to estimate the lives of significant structures such
4 as office buildings and service centers?

5 A. I used the life span technique to estimate the lives of significant structures. In
6 this technique, the survivor characteristics of the structures are described by the
7 use of interim survivor curves and estimated probable retirement dates. The
8 interim survivor curve describes the rate of retirement related to the
9 replacement of elements of the structure, such as plumbing, heating, doors,
10 windows, roofs, etc., that occur during the life of the facility. The probable
11 retirement date provides the rate of final retirement for each year of installation
12 for the structure by truncating the interim survivor curve for each installation
13 year at its attained age at the date of probable retirement. The use of interim
14 survivor curves truncated at the date of probable retirement provides a
15 consistent method for estimating the lives of the several years of installation,
16 inasmuch as concurrent retirement of all years of installation will occur when the
17 structure is retired.

18 Q. Has your firm used this approach in other proceedings before this Commission?

19 A. Yes, we have used the life span technique on many occasions before the
20 Pennsylvania Public Utility Commission.

21 Q. What are the bases for the probable retirement years that you have estimated
22 for each structure?

23 A. The bases for the estimates of probable retirement years are life spans for each
24 structure that are based on judgment and incorporate consideration of the age,

1 use, size, nature of construction, management outlook and typical life spans
2 experienced and used by other electric utilities for similar structures. Most of
3 the life spans result in probable retirement years that are many years in the
4 future. As a result, the retirement of these structures is not yet subject to
5 specific management plans. Such plans would be premature. At the
6 appropriate time, analysis of the economics of rehabilitation and continued use
7 or retirement of the structure will be performed and the results incorporated in
8 the estimation of the structure's life span.

9 Q. Are the factors considered in your estimates of service life presented in Exhibit
10 JJS 2?

11 A. Yes. A discussion of the factors considered in the estimation of service lives is
12 presented by account on pages II-3 through II-26 of Exhibit JJS 2.

13 Q. Please outline the contents of Exhibit JJS 2.

14 A. Exhibit JJS 2 is presented in three parts. Part I, Executive Summary, sets forth
15 the scope and basis of study. Part II, Methods Used in Study, includes the
16 estimation of survivor curves, and the calculation of annual depreciation and
17 amortization.

18 Part III, Results of Study, presents a description of the results,
19 summaries of the depreciation calculations, graphs and tables which relate to
20 the service life study, and the detailed depreciation calculations.

21 Table 1 on pages III-4 and III-5 presents the estimated survivor curve,
22 the original cost at December 31, 2007, and the book reserve and calculated
23 annual depreciation for each account or subaccount of utility plant.

1 On pages III-6 and III-7, Table 2 sets forth the "bring forward" of the
2 book reserve from December 31, 2006 to December 31, 2007. Table 3 on page
3 III-8 presents the net salvage by function and amortization for the period 2002
4 through 2006.

5 The section beginning on page III-9 presents the results of the
6 retirement rate analyses prepared as the historical bases for the service life
7 estimates. The section beginning on page III-124 presents the depreciation
8 calculations related to original cost. The tabulations on pages III-125 through
9 III-241 present the calculation of annual depreciation by vintage by account for
10 each depreciable group of utility plant.

11 Q. Please use an example to illustrate the manner in which the study is presented
12 in Exhibit JJS 2.

13 A. I will use Account 365, Overhead Conductors and Devices, as my example,
14 inasmuch as it is one of the larger depreciable groups and represents 12
15 percent of the original cost of depreciable utility plant as of December 31, 2007.

16 The retirement rate method was used to analyze the survivor
17 characteristics of this group. The life table for the 1912 through 2006
18 experience band is presented on pages III-76 through III-78 of Exhibit JJS 2.
19 The life table, or original survivor curve, is plotted along with the estimated
20 smooth survivor curve, the 44-R1, on page III-75.

21 The calculation at December 31 2007, is presented on pages III-168
22 through III-170 of Exhibit JJS2 and is based in part on the bring forward of the
23 book reserve. The tabulation in Exhibit JJS 2 sets forth the installation year, the
24 original cost, calculated accrued depreciation, allocated book reserve, future

1 accruals, remaining life and annual accrual. The totals are brought forward to
2 the table on page III-4 in Exhibit JJS 2.

3 Q. Does this complete your testimony at this time?

4 A. Yes, it does.

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Docket No. R-00072155

PPL Electric Utilities Corporation

Statement No. 11

Direct Testimony of Paul R. Moul

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PPL Electric Utilities Corporation
Direct Testimony of Paul R. Moul
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GLOSSARY OF ACRONYMS AND DEFINED TERMS

ACRONYM	DEFINED TERM
AFUDC	Allowance for Funds Used During Construction
AMT	Alternative Minimum Tax
β	Beta
b	Represents the retention rate that consists of the fraction of earnings that are not paid out as dividends
$b \times r$	Represents internal growth
CAPM	Capital Asset Pricing Model
CCR	Corporate Credit Rating
CE	Comparable Earnings
CWIP	Construction Work in Progress
DCF	Discounted Cash Flow
E	Common equity ratio
EPACT	National Energy Policy Act
FOMC	Federal Open Market Committee
g	Growth rate
GAAP	Generally accepted accounting principles
GDP	Gross Domestic Product
IGF	Internally Generated Funds
Lev	Leverage modification
LT	Long Term
M&A	Merger and Acquisition
MLP	Master Limited Partnerships
MPL	Minimum Pension Liability
NUGS	Non-utility generators
OCI	Other Comprehensive Income
P	Preferred and preference stock
PJM	PJM Interconnection, LLC
POLR	Provider of last resort
PPL	PPL Corporation

DIRECT TESTIMONY OF PAUL R. MOUL

INTRODUCTION AND SUMMARY OF RECOMMENDATION

1 **Q. Please state your name, occupation, and business address.**

2 A. My name is Paul Ronald Moul. My business address is 251 Hopkins Road,
3 Haddonfield, New Jersey 08033-3062. I am Managing Consultant of the firm P.
4 Moul & Associates, an independent financial and regulatory consulting firm. My
5 educational background, business experience, and qualifications are provided in
6 Appendix A, which follows my direct testimony.

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

8 A. My testimony presents evidence, analysis and a recommendation concerning the
9 appropriate rate of return that the Pennsylvania Public Utility Commission
10 ("PPUC" or the "Commission") should allow PPL Electric Utilities Corporation
11 ("PPL Electric" or the "Company"), an opportunity to earn on its jurisdictional rate
12 base devoted to public service. My analysis and recommendation are supported by
13 the detailed financial data contained in Exhibit PRM 1, which is a multi-page
14 document divided into fourteen (14) schedules. Additional evidence, in the form of
15 appendices, follows my direct testimony. The items covered in these appendices
16 provide additional detailed information concerning the explanation and application
17 of the various financial models upon which I rely.

18 **Q. Based upon your analysis, what is your conclusion concerning the appropriate
19 cost of common equity and rate of return for the Company?**

20 A. Based upon my independent analysis, my conclusion is that the Company should be
21 afforded an opportunity to earn a rate of return on common equity of 11.50%, and an
22 overall rate of return of 8.36%. I reached this determination based upon the range of

DIRECT TESTIMONY OF PAUL R. MOUL

1 the results of the models/methods I used to measure the cost of equity. As my
2 testimony will demonstrate, an 11.50% cost of equity is warranted in this case for the
3 Company and provides recognition of the exemplary performance of the Company's
4 management.

5 My overall rate of return recommendation is determined by using the
6 weighted average cost of capital. This approach provides a means to apportion the
7 return to each class of investor. The calculation of the weighted average cost of capital
8 requires the selection of appropriate capital structure ratios and a determination of the
9 cost rate for each capital component. The resulting overall fair rate of return, when
10 applied to the Company's rate base, will provide a compensatory level of return for the
11 use of capital and provide the Company with the ability to attract capital.

12 **Q. What background information have you considered in reaching a conclusion**
13 **concerning the Company's cost of capital?**

14 A. PPL Electric is a wholly-owned subsidiary of PPL Corporation ("PPL" or the
15 "Parent Company"). The Company provides electric delivery service and provider
16 of last resort ("POLR") service to over 1,375,000 customers in twenty-nine central
17 and eastern Pennsylvania counties. Although the Company has traditionally been a
18 winter peaking electric utility, its summer load has closely matched its winter load.
19 In 2005, electric sales in Mwh for PPL Electric were comprised of approximately
20 37% to residential, 34% to commercial, 25% to industrial customers, and 3% to
21 street lighting, public authorities, sales for resale, and other sales.

22 The Company is presently operating under a POLR rate plan that extends
23 through 2009. Under POLR, residential and small commercial customers obtain

DIRECT TESTIMONY OF PAUL R. MOUL

1 service under capped prices until that time. The Company obtains the energy to
2 meet its POLR obligations through a Commission approved contract with PPL
3 EnergyPlus, LLC that extends through 2009.

4 **Q. How have you determined the cost of common equity in this case?**

5 A. The cost of common equity is established using capital market and financial data
6 relied upon by investors to assess the relative risk, and hence the cost of equity, for
7 an electric utility, such as PPL Electric. In this regard, I relied on four (4) well-
8 recognized measures of the cost of equity: The Discounted Cash Flow ("DCF")
9 model, the Risk Premium ("RP") analysis, the Capital Asset Pricing Model
10 ("CAPM"), and the Comparable Earnings ("CE") approach. The results of a variety
11 of approaches indicate that the Company's rate of return on common equity is
12 within the range of 11.25% to 11.75%.

13 **Q. In your opinion, what factors should the Commission consider when
14 determining the Company's cost of capital in this proceeding?**

15 A. The Commission's rate of return allowance must provide a utility with the
16 opportunity to cover its interest and preferred and preference dividend payments,
17 provide a reasonable level of earnings retention, produce an adequate level of
18 internally generated funds to meet capital requirements, be adequate to attract
19 capital in all market conditions, be commensurate with the risk to which the utility's
20 capital is exposed, and support reasonable credit quality. I have explained the basis
21 of these ratesetting principles in Appendix B.

22 **Q. What factors have you considered in measuring the cost of equity in this case?**

23 A. The models that I used to measure the cost of common equity for the Company

DIRECT TESTIMONY OF PAUL R. MOUL

1 were applied with market and financial data developed from my proxy group of
2 eight electric companies. The criteria that I used to assemble this proxy group will
3 be described later in my testimony. The companies in the proxy group are
4 identified on page 2 of Schedule 3. I will refer to these companies as the “Electric
5 Group” throughout my testimony.

6 **Q. How have you performed your cost of equity analysis with the market data for
7 the Electric Group?**

8 A. I have applied the models/methods for estimating the cost of equity using the
9 average data for the Electric Group. I have not measured separately the cost of
10 equity for the individual companies within the Electric Group, because the
11 determination of the cost of equity for an individual company has become
12 increasingly problematic. By employing group average data, rather than individual
13 Company’s analysis, I have helped to minimize the effect of extraneous influences
14 on the market data for an individual company.

15 **Q. Please summarize your cost of equity analysis.**

16 A. My cost of equity determination was derived from the results of the
17 methods/models identified above. In general, the use of more than one method
18 provides a superior foundation to arrive at the cost of equity. At any point in time,
19 reliance on a single method can provide an incomplete measure of the cost of
20 equity. The specific application of these methods/models will be described later in
21 my testimony. The following table provides a summary of the indicated costs of
22 equity using each of these approaches.

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	<u>Electric Group</u>
DCF	11.01%
RP	11.50%
CAPM	12.29%
Comparable Earnings	15.05%
Average	12.46%
Median	11.90%
Mid-point	13.03%

1 From the results derived from the market models of the cost of equity (i.e., DCF, Risk
2 Premium and CAPM), the average return is 11.60%. The average return for the DCF
3 and Risk Premium models is 11.26%. In recognition of the uncertainties that are
4 associated with the end of the transition phase of restructuring and in recognition of the
5 exemplary performance of the Company's management, as described in the pre-filed
6 direct testimony of Mr. David G. DeCampli, the rate of return on common equity
7 should be set at 11.50%. I also believe that my recommended cost of equity of 11.50%
8 is appropriate in this case because it makes no provision for the prospect that the rate
9 of return may not be achieved due to unforeseen events that could occur during the
10 effective period of the proposed rates.

11 **ELECTRIC UTILITY RISK FACTORS**

12 **Q. Please identify some of the factors that make the electric utility industry**
13 **generally different today than it was in the past.**

14 **A.** Today, electric utilities generally are faced with meaningful changes in the
15 fundamentals that affect their operations, while cost of service pricing continues to

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1 dominate much of their business profile. On the national level, the passage of the
2 National Energy Policy Act ("EPACT") and the issuance of FERC Order Nos. 888
3 and 889 and Order No. 2000 initiated sweeping changes that fundamentally altered
4 the structure of the electric utility business. EPACT removed certain impediments
5 to the construction of non-utility generators ("NUGs") by utility affiliates and by
6 independent developers. Order Nos. 888 and 889 have provided these generators,
7 as well as other utilities, with the ability to sell their energy directly to wholesale
8 customers, as well as to end-use customers in states with retail competition. Order
9 No. 2000 encouraged the formation of Regional Transmission Organizations
10 ("RTO") that offer non-discriminatory transmission service. PPL Electric is part of
11 the PJM Interconnection, LLC. Although generation in some parts of the U.S. has
12 become a non-regulated competitive business, the transmission and distribution of
13 electricity will likely continue under some form of rate regulation. The recent
14 passage of the EPACT further highlights the emphasis being placed upon the
15 reliability and structure of the electric utility industry.

16 **Q. What changes have occurred in Pennsylvania as a result of a move to more**
17 **competitive markets for electricity?**

18 A. On January 2, 2000, customer choice was fully available in Pennsylvania for
19 electricity. From that point forward, PPL Electric's responsibility became primarily
20 the provision of delivery service at regulated prices, while it also retained the
21 responsibility for POLR service to customers that do not elect competitive energy
22 suppliers. The restructuring of the electric business in Pennsylvania has been
23 underway for several years.

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1 **Q. Have these changes brought about increases in the risks facing electric utilities**
2 **generally?**

3 A. Yes. Aside from its traditional responsibility to maintain reliability and comply
4 with the mandates of PJM, a different set of risks are now evolving in a new era for
5 the electric delivery business in Pennsylvania. The risk of distributed generation
6 will continue to be a concern, and could have an increasing influence on the
7 business of electric delivery utilities. With technological advances in micro-
8 turbines, potential commercialization of fuel cells, development of wind and solar
9 power, utilities face the potential for declines in revenue from the transmission and
10 distribution of electricity. In addition, the testimony of Mr. Douglas A. Krall
11 describes the potential risks associated with the Governor's legislative proposal for
12 changes that would apply to electricity service. Among other items in the proposal,
13 the creation of micro-grids could elevate the risk of bypass for the incumbent
14 electric utilities. In addition, an electric utility retains the obligation to provide
15 reliable delivery service and must continue to invest in its rate base to fulfill that
16 obligation.

17 The obligation to serve also represents a key risk factor for the local delivery
18 of electricity. The risks facing the electric utilities are clearly different from those
19 that existed in the past. Investors generally are risk-averse, and with increased
20 uncertainty will require compensation for higher risk.

21 **Q. What are the primary risk factors facing the electric utility industry?**

22 A. In the new environment, competitive issues have or will develop due to the
23 convergence of energy sources and bypass arising from self-generation or

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1 distributed-generation. Regulatory risks include the overall framework of
2 ratesetting, cost allocation, and rate design issues, and the level of return that will be
3 allowed.

4 The financial structure of the electric business is uncertain due to the
5 structure and term of relationship with end-users, the adequacy of capital recovery,
6 counter-party risk, potential for financial penalties associated with operational
7 problems, and growth in the utilization of the transmission and distribution network
8 by non-affiliated generators and marketers. The August 14, 2003 blackout that
9 affected 50 million people represents a case-in-point regarding some of these issues.

10 **Q. Please discuss further the evolving risks for electric utilities.**

11 A. With increased emphasis on market-determined prices and open access of the
12 transmission network, a new dimension has been opened in the electric utility
13 business. A pricing structure restricted by regulation diminishes management's
14 ability to adjust its business strategy quickly to changing market conditions to
15 respond to broadening competition. Hence, deregulation of certain segments of the
16 electric utility business provides significant downside risk due to loss of revenues,
17 but provides little upside potential due to the limitations placed on returns by
18 regulators.

19 **Q. Are there other specific risk issues facing the Company?**

20 A. Yes. Energy deliveries to non-residential customers which represent 63% of the
21 Company's energy deliveries are usually thought to be of higher risk than to
22 residential customers. Success in this segment of the Company's market is subject
23 to the business cycle and pressures from alternative providers. Moreover, external

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1 factors also can influence deliveries to these customers, which face competitive
2 pressure on their own operations from other facilities outside the utility's service
3 territory.

4 **Q. Please indicate how the Company's risk profile is affected by its construction**
5 **program.**

6 A. The Company is faced with the requirement to undertake investment to maintain
7 and upgrade existing facilities in its service territory and to meet growth. Over the
8 next four years, the Company's total capital expenditures are expected to be:

<u>Years</u>	<u>Construction</u>
2007	\$ 303,000,000
2008	255,000,000
2009	278,000,000
2010	<u>286,000,000</u>
Total	<u><u>\$ 1,122,000,000</u></u>

9
10 These expenditures will represent approximately 37% (\$1,122 million ÷ \$2,993.8
11 million) of the net utility plant at December 31, 2006. The Company expects that
12 approximately 89% of these expenditures will be financed with internally generated
13 funds. A reasonable opportunity to experience a fair rate of return represents the
14 key to a financial profile that will provide the Company with the ability to raise
15 capital in all market conditions to meet its needs, and to satisfy investor
16 requirements in an evolving industry.

17 **Q. How should the Commission respond to the evolving business environment**
18 **facing the Company?**

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1 A. In the situation where additional capital is required, as shown by the projected
2 construction expenditures indicated above, the regulatory process must establish a
3 return on equity that provides a reasonable opportunity for the Company to actually
4 achieve its cost of capital. Where ongoing capital investment is required to meet
5 the high quality of service that customers demand, supportive regulation is
6 essential.

FUNDAMENTAL RISK ANALYSIS

7
8 **Q. Is it necessary to conduct a fundamental risk analysis to provide a framework
9 for a determination of a utility's cost of equity?**

10 A. Yes. It is necessary to establish a company's relative risk position within its
11 industry through a fundamental analysis of various quantitative and qualitative
12 factors that bear upon investors' assessment of overall risk. The qualitative factors
13 that bear upon the Company's risk already have been discussed. The quantitative
14 risk analysis follows. The items that influence investors' evaluation of risk and
15 their required returns are described in Appendix C. For this purpose, I compared
16 PPL Electric to the S&P Public Utilities, an industry-wide proxy consisting of
17 various regulated businesses, and to the Electric Group.

18 **Q. What are the components of the S&P Public Utilities?**

19 A. The S&P Public Utilities is a widely recognized index that is comprised of electric
20 power and natural gas companies. These companies are identified on page 3 of
21 Schedule 4.

22 **Q. What criteria did you employ to assemble the Electric Group?**

23 A. The Electric Group companies have the following common characteristics: (i) they

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1 are listed in the "Electric Utility (East)" section of The Value Line Investment
2 Survey, (ii) their stock is traded on the New York Stock Exchange, (iii) they operate
3 in the Northeastern and Southeastern regions of the U.S., (iv) they are not currently
4 the target of a publicly-announced merger or acquisition, and (v) they do not have a
5 significant amount of electric generation that is unregulated. It would be
6 inappropriate to include a company that is a target of a takeover in a proxy group,
7 because the stock price of that company usually does not reflect its underlying
8 fundamentals.

9 **Q. Is knowledge of a utility's bond rating an important factor in assessing its risk**
10 **and cost of capital?**

11 A. Yes. Knowledge of a company's credit quality rating is important because the cost
12 of each type of capital is directly related to the associated risk of the firm. So while
13 a company's credit quality risk is shown directly by the rating and yield on its
14 bonds, these relative risk assessments also bear upon the cost of equity. This is
15 because a firm's cost of equity is represented by its borrowing cost plus
16 compensation to recognize the higher risk of an equity investment compared to
17 debt.

18 **Q. How do the bond ratings compare for PPL Electric, the Electric Group, and**
19 **the S&P Public Utilities?**

20 A. Presently, the corporate credit rating ("CCR") for PPL Electric is A- from Standard
21 & Poor's Corporation ("S&P") and long-term ("LT") issuer rating is Baa1 from
22 Moody's Investor Service ("Moody's"). The LT issuer rating by Moody's and the
23 CCR designation by S&P focuses upon the credit quality of the issuer of the debt,

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1 rather than upon the debt obligation itself. The Electric Group's average credit
2 quality rating is BBB+ from S&P and Baa1 from Moody's. For the S&P Public
3 Utilities, the average composite rating is BBB+ by S&P and Baa1 by Moody's. The
4 Company's credit quality rating by S&P is stronger as compared to the Electric
5 Group and the S&P Public Utilities, while the Moody's credit quality rating is
6 equivalent for PPL Electric and these groups. The stronger credit quality rating by
7 S&P is attributable, in part, to the "ring fencing" undertaken by the Company in
8 2001. Many of the financial indicators that I will subsequently discuss are
9 considered during the rating process.

10 **Q. How do the financial data compare for PPL Electric, the Electric Group, and**
11 **the S&P Public Utilities?**

12 A. The broad categories of financial data that I will discuss are shown on Schedules 2,
13 3, and 4. The data cover the five-year period 2001-2005. The important categories
14 of relative risk may be summarized as follows:

15 Size. In terms of capitalization, PPL Electric is smaller than the average
16 size of the Electric Group. The average size of the S&P Public Utilities is larger
17 than the Electric Group and PPL Electric. All other things being equal, a smaller
18 company is riskier than a larger company because a given change in revenue and
19 expense has a proportionately greater impact on a small firm.

20 Market Ratios. Market-based financial ratios provide a partial indication of
21 the investor-required cost of equity. If all other factors are equal, investors will
22 require a higher rate of return on equity for companies that exhibit greater risk, in
23 order to compensate for that risk. That is to say, a firm that investors perceive to

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1 have higher risks will experience a lower price per share in relation to expected
2 earnings.

3 There are no market ratios available for PPL Electric because its stock is not
4 traded. The five-year average price-earnings multiple for the Electric Group was
5 similar to that of the S&P Public Utilities. The five-year average dividend yield
6 was somewhat higher for the Electric Group, as compared to the S&P Public
7 Utilities. The average market-to-book ratio was somewhat higher for the S&P
8 Public Utilities than the Electric Group.

9 Common Equity Ratio. The level of financial risk is measured by the
10 proportion of long-term debt and other senior capital that is contained in a
11 company's capitalization. Financial risk is also analyzed by comparing common
12 equity ratios (the complement of the ratio of debt and other senior capital). That is
13 to say, a firm with a high common equity ratio has lower financial risk, while a firm
14 with a low common equity ratio has higher financial risk. The five-year average
15 common equity ratios, based on permanent capital, were 42.4% for PPL Electric,
16 45.2% for the Electric Group, and 39.5% for the S&P Public Utilities. The
17 financial risk of PPL Electric was somewhat above that of the Electric Group.
18 Indeed, the Company's financial risk has increased since the time of its last rate
19 case. I will discuss the implications of this change in terms of the Company's new
20 business profile score.

21 Return on Book Equity. Greater variability (i.e., uncertainty) of a firm's
22 earned returns signifies relatively greater levels of risk, as shown by the coefficient
23 of variation (standard deviation ÷ mean) of the rate of return on book common

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1 equity. The higher the coefficients of variation, the greater degree of variability.
2 For the five-year period, the coefficients of variation were 0.603 (4.1% ÷ 6.8%) for
3 PPL Electric, 0.071 (0.6% ÷ 8.4%) for the Electric Group, and 0.231 (2.5% ÷
4 10.8%) for the S&P Public Utilities. The historical earnings variability for PPL
5 Electric was higher than that of the Electric Group and the S&P Public Utilities.

6 Operating Ratios. I have also compared operating ratios (the percentage of
7 revenues consumed by operating expense, depreciation, and taxes other than
8 income taxes). The complement of the operating ratio is the operating margin
9 which provides a measure of profitability. The higher the operating ratio, the lower
10 the operating margin. The five-year average operating ratios were 88.8% for PPL
11 Electric, 88.8% for the Electric Group, and 84.6% for the S&P Public Utilities. The
12 operating risk for PPL Electric is fairly similar to the Electric Group, and somewhat
13 above that of the S&P Public Utilities.

14 Coverage. The level of fixed charge coverage (i.e., the multiple by which
15 available earnings cover fixed charges, such as interest expense) provides an
16 indication of the earnings protection for creditors. Higher levels of coverage, and
17 hence earnings protection for fixed charges, are usually associated with superior
18 grades of creditworthiness. The five-year average interest coverage (excluding
19 Allowance for Funds Used During Construction (“AFUDC”)) was 1.61 times for
20 PPL Electric, 2.68 times for the Electric Group, and 2.68 times for the S&P Public
21 Utilities. Coverage for PPL Electric was weaker than that of the Electric Group and
22 the S&P Public Utilities.

23 Quality of Earnings. Measures of earnings quality usually are revealed by

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1 the percentage of AFUDC related to income available for common equity, the
2 effective income tax rate, and other cost deferrals. These measures of earnings
3 quality usually influence a firm's internally generated funds because poor quality of
4 earnings would not generate high levels of cash flow. Quality of earnings has not
5 been a significant concern for PPL Electric, the Electric Group, and the S&P Public
6 Utilities.

7 Internally Generated Funds. Internally generated funds ("IGF") provide an
8 important source of new investment capital for a utility and represent a key measure
9 of credit strength. Historically, the five-year average percentage of IGF to capital
10 expenditures was 236.6% for PPL Electric, 114.6% for the Electric Group, and
11 109.0% for the S&P Public Utilities. The cash flow for PPL Electric was stronger
12 than that of the Electric Group and the S&P Public Utilities.

13 Betas. The financial data that I have been discussing relate primarily to
14 company-specific risks. Market risk for firms with publicly-traded stock is
15 measured by beta coefficients. Beta coefficients attempt to identify systematic risk,
16 i.e., the risk associated with changes in the overall market for common equities.
17 Value Line publishes such a statistical measure of a stock's relative historical
18 volatility to the rest of the market. A comparison of market risk is shown by the
19 Value Line beta of .85 as the average for the Electric Group (see page 2 of Schedule
20 3), and .95 as the average for the S&P Public Utilities (see page 3 of Schedule 4).

21 **Q. Please summarize your risk evaluation of the Company and the Electric**
22 **Group.**

23 A. The risk of PPL Electric parallels that of the Electric Group in certain respects with

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1 regard to historical financial performance. The size of the Company is smaller than
2 the average size of the Electric Group, although PPL Electric cannot be considered
3 to be a small company. Other factors that distinguish PPL Electric relate to its
4 somewhat highly financial risk, its higher earnings variability, and its weaker
5 interest coverage historically. As such, the cost of equity estimated from the market
6 data for the Electric Group will provide a conservative basis for the rate of return on
7 common equity for PPL Electric.

8 **CAPITAL STRUCTURE RATIOS**

9 **Q. Please explain the selection of capital structure ratios for PPL Electric in this**
10 **case.**

11 A. In the situation where the operating public utility raises its own long-term debt and
12 preferred and preference stock directly in the capital markets, as is the case for PPL
13 Electric, it is proper to employ the capital structure ratios and senior capital cost
14 rates of the regulated public utility for rate of return purposes. Furthermore,
15 consistency requires that the embedded cost rate of the Company's senior securities
16 also be employed. This procedure is consistent with the ratesetting procedures used
17 by the Commission in numerous prior rate cases for PPL Electric.

18 **Q. Does Schedule 5 provide the capitalization and capital structure ratios you**
19 **have considered?**

20 A. Yes. Schedule 5 presents PPL Electric's capitalization and related capital structure
21 at December 31, 2006, the end of the historic test year. Also shown on Schedule 5
22 is the PPL Electric's capital structure estimated at December 31, 2007, the end of
23 the future test year. During the future test year, the significant changes in the

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1 Company's capital structure are projected to be: (i) the maturity of \$254.866 million
2 of 5.875% Senior Secured Bonds on August 15, 2007, (ii) the planned issuance of
3 \$240.000 million of 5.70% (estimated) Senior Secured Bonds, and (iii) the
4 Company's projection of retained earnings at December 31, 2007. I also have
5 adjusted the Company's capital structure to recognize several ratesetting
6 adjustments. Those adjustments relate to the treatment of the call premiums on the
7 early redemption of high cost long-term debt and preferred and preference stock,
8 which has been redeemed, the removal of the accumulated other comprehensive
9 income ("OCI"), and the deferred cost associated with a 2005 ice storm. The
10 testimony of Ms. Denise A. Cunningham will discuss the ratesetting treatment of
11 these deferred costs.

12 **Q. Please describe these adjustments.**

13 A. I have adjusted the principal amounts of long-term debt and preferred and
14 preference stock to exclude the amounts used to finance premiums on the early
15 redemption of long-term debt and preferred and preference stock. To do otherwise
16 would deny PPL Electric the full return on the premiums paid to redeem this high
17 cost capital since additional amounts of capital were issued to pay the call
18 premiums. The amounts issued to finance the call premiums do not increase the
19 Company's rate base. That is to say, no additional rate base was created through
20 additional debt and preferred and preference stock necessary to finance this
21 transaction, and therefore an adjustment is required to provide the return necessary
22 to service this additional capital. Hence, PPL Electric's long-term debt and
23 preferred and preference stock amounts must be adjusted for this disparity in order

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1 that the return necessary to service the capitalization is produced from rate base
2 investment times the overall rate of return.

3 This adjustment is equitable because customers receive the cost savings
4 resulting from these refinancing in the form of a lower overall rate of return, and
5 PPL Electric recovers all costs incurred in providing these benefits to the customers.

6 To accomplish these savings, the Company paid the debt and preferred and
7 preference holders a premium for surrendering their securities prior to maturity.

8 These premiums represented an investment made by PPL Electric to reduce its
9 overall cost of capital. Because the reduced interest costs and preferred and
10 preference stock dividends are reflected in the lower cost of capital to ratepayers, it
11 is appropriate that the Company recover the costs incurred to produce these savings.

12 This includes both a return of and return on the unamortized premiums. Adjusting
13 the principal amounts in the capital structure provides a return on the premium as a
14 part of the embedded cost rates of capital.

15 **Q. Are there additional adjustments necessary to reflect the call of high cost**
16 **preferred and preference stock?**

17 **A.** Yes. Unlike the situation where the Company recorded the call premiums on the
18 long-term debt as deferred debits for future recovery in rates, no similar accounting
19 was available to the Company for the call premiums associated with the early
20 redemption of the preferred and preference stock. Instead, those amounts were
21 charged directly to retained earnings. Also, the Company financed the call
22 premium with the additional sale of preferred and preference stock. The
23 Commission has encouraged utilities to refinance high-cost capital and has stated

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1 that a utility will not be penalized for undertaking a refinancing. Hence, it is
2 necessary to restore the Company's capital structure to the condition which existed
3 prior to the refinancing of the high cost preferred and preference stock. To
4 accomplish this, it is necessary to reduce the preferred and preference stock
5 outstanding by the amount of the call premium and to remove a similar amount for
6 the charge to retained earnings for the call premiums. These adjustments maintain
7 the aggregate amount of total capitalization for the Company. All of my
8 adjustments to the Company's capital structure for call premiums comply with
9 adjustments routinely approved by the Commission and which were adopted by the
10 Commission in the Company's last rate case proceeding.

11 I also have removed the accumulated OCI from the capital structure for
12 ratesetting purposes. OCI arises from a variety of sources, including: minimum
13 pension liability, foreign currency hedges, unrealized gains and losses on securities
14 available for sale, interest rate swaps, and other cash flow hedges. The majority of
15 the accumulated OCI for the Company consists of unrealized gains and losses on
16 Available-for-Sale Securities and other adjustments. These accounting entries to
17 accumulated OCI are unrelated to the Company's rate base determination and must
18 be excluded from the common equity.

19 **Q. Does Schedule 5 also show the Company's short-term debt outstanding?**

20 A. Yes. Although there was approximately \$42 million short-term debt outstanding at
21 December 31, 2006, and the Company projects approximately \$54 million of short-
22 term debt at December 31, 2007, those accounts are used to finance its construction
23 work in progress ("CWIP"). Given the Company's procedure of calculating its

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1 AFUDC rate by including short-term interest expense in the calculation, it has been
2 the Commission's policy to exclude short-term debt from the capital structure for
3 ratesetting purposes.

4 **Q. What capital structure ratios do you recommend be adopted for rate of return**
5 **purposes in this proceeding?**

6 A. Because ratemaking is prospective, the rate of return should reflect known changes
7 that will occur during the course of the future test year, at a minimum, and should
8 consider conditions that will exist during the period of time that the proposed rates
9 will be effective. As a result, I will adopt the Company's future test year-end capital
10 structure ratios of 46.41% long-term debt, 10.46% preferred and preference stock,
11 and 43.13% common equity. These capital structure ratios are the best
12 approximation of the mix of capital the Company will employ to finance its rate
13 base during the period that new rates are in effect, and they are appropriate so that
14 the Company can strive to improve its bond ratings.

15 **COST OF SENIOR CAPITAL**

16 **Q. What cost rate have you assigned to the debt portion of PPL Electric's capital**
17 **structure?**

18 A. The determination of the long-term debt cost rate is essentially an arithmetic
19 exercise. This is due to the fact that the Company has contracted for the use of this
20 capital for a specific period of time at a specified cost rate. As shown on page 1 of
21 Schedule 6, I have computed the actual embedded cost rate of long-term debt at
22 December 31, 2006. On page 2 of Schedule 6, I have shown the estimated
23 embedded cost rate of long-term debt at December 31, 2007. The development of

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1 the individual effective cost rates for each series of long-term debt, using the cost
2 rate to maturity technique, is shown on page 3 of Schedule 6. The cost rate, or yield
3 to maturity ("ytm"), is the rate of discount that equates the present value of all
4 future interest and principal payments with the net proceeds of the bond. I should
5 note that in developing the net proceeds ratio for use in the ytm calculation, the
6 current amount outstanding was used along with the unamortized balance of the
7 issuance costs. The resulting net proceeds ratio using the present amount
8 outstanding provides a reasonable estimate of the original net proceeds ratio when
9 the debt series were originally issued.

10 For the new issue of \$240 million of Senior Secured Bonds, I have used an
11 estimated cost of 5.70%. No separate recognition of issuance costs has been shown
12 on page 3 of Schedule 6, because the Company believes that the 5.70% rate is
13 reflective of the all-in cost of this issue. After the new debt is sold, the actual
14 coupon rate and issuance costs will be incorporated into the effective cost rate (i.e.,
15 ytm) for this issue.

16 I will adopt the 5.93% embedded cost of long-term debt at December 31,
17 2007, as shown on page 2 of Schedule 6. This rate is related to the amount of long-
18 term debt shown on Schedule 5 which provides the basis for the 46.41% long-term
19 debt ratio. In my calculation of the embedded cost of long-term debt, I have
20 recognized the costs associated with the Company's early redemption of high cost
21 debt. As previously explained, it is necessary to compensate PPL Electric for the
22 costs incurred to lower the embedded debt cost rate, which reduces the cost of
23 capital charged to ratepayers.

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1 **Q. What preferred and preference stock cost rate have you calculated for the**
2 **Company?**

3 A. For the future test year, I have calculated a 6.24% embedded cost of preferred and
4 preference stock as shown on page 2 of Schedule 7. I have included in the
5 embedded cost rate of preferred and preference stock the unrecovered issuance
6 costs and the call premium on the redemption of the preferred and preference stock.
7 The unrecovered issuance expenses and the call premium has been amortized over
8 the original remaining term of the issue. This procedure was adopted because of the
9 difficulty of assigning those costs to a specific replacement issue. These
10 adjustments correspond to those which I previously discussed regarding the
11 Company's capital structure ratios. I will adopt the 6.24% embedded cost of
12 preferred and preference stock, which is related to the 10.46% preferred and
13 preference stock ratio shown on Schedule 5. The details regarding the individual
14 cost rates for each series of preferred and preference stock are provided on page 3
15 of Schedule 7.

COST OF EQUITY – GENERAL APPROACH

17 **Q. Please describe the process you employed to determine the cost of equity for**
18 **PPL Electric.**

19 A. Although my fundamental financial analysis provides the required framework to
20 establish the risk relationships among PPL Electric, the Electric Group, and the
21 S&P Public Utilities, the cost of equity must be measured by standard financial
22 models that I describe in Appendix D. Differences in risk traits, such as size,
23 business diversification, geographical diversity, regulatory policy, financial

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1 leverage, and bond ratings must be considered when analyzing the cost of equity
2 indicated by the models.

3 It also is important to reiterate that no one method or model of the cost of
4 equity can be applied in an isolated manner. Rather, informed judgment must be
5 used to take into consideration the relative risk traits of the firm. It is for this reason
6 that I have used more than one method to measure the Company's cost of equity.
7 As noted in Appendix D, and elsewhere in my direct testimony, each of the
8 methods used to measure the cost of equity contains certain incomplete and/or
9 overly restrictive assumptions and constraints that are not optimal. Therefore, I
10 favor considering the results from a variety of methods. In this regard, I applied
11 each of the methods with data taken from the Electric Group and determined that
12 the cost of equity is 11.50%, which provides recognition of the exemplary
13 performance by the Company's management.

DISCOUNTED CASH FLOW ANALYSIS

14
15 **Q. Please describe your use of the Discounted Cash Flow approach to determine**
16 **the cost of equity.**

17 **A.** The details of my use of the DCF approach and the calculations and evidence in
18 support of my conclusions are set forth in Appendix E. I will summarize them here.
19 The DCF model seeks to explain the value of an asset as the present value of future
20 expected cash flows discounted at the appropriate risk-adjusted rate of return. In its
21 simplest form, the DCF return on common stocks consists of a current cash
22 (dividend) yield and future price appreciation (growth) of the investment. The cost
23 of equity based on a combination of these two components represents the total

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1 return that investors can expect with regard to an equity investment.

2 Among other limitations of the model, there is a certain element of
3 circularity in the DCF method when applied in rate cases. This is because
4 investors' expectations for the future depend upon regulatory decisions. In turn,
5 when regulators depend upon the DCF model to set the cost of equity, they rely
6 upon investor expectations that include an assessment of how regulators will decide
7 rate cases. Due to this circularity, the DCF model may not fully reflect the true risk
8 of a utility.

9 As I describe in Appendix E, the DCF approach has other limitations that
10 diminish its usefulness in the ratesetting process when the market capitalization
11 diverges significantly from book value capitalization. When this situation exists,
12 the DCF method will lead to a misspecified cost of equity when it is applied to a
13 book value capital structure.

14 If regulators rely upon the results of the DCF (which are based on the
15 market price of the stock of the companies analyzed) and apply those results to
16 book value, the resulting earnings will not produce the level of required return
17 specified by the model when market prices vary from book value. This is to say,
18 such distortions tend to produce DCF results that understate the cost of equity to the
19 regulated firm when using book values. This shortcoming of the DCF has
20 persuaded the Commission to adjust the DCF determined cost of equity upward to
21 make the return consistent with the book value capital structure. Provisions for this
22 risk difference were made by the Commission in the following cases:

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19 regulated firm when using book values. This shortcoming of the DCF has
20 persuaded the Commission to adjust the DCF determined cost of equity upward to
21 make the return consistent with the book value capital structure. Provisions for this
22 risk difference were made by the Commission in the following cases:

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- 1 • January 10, 2002 for Pennsylvania-American Water Company in Docket
2 No. R-00016339 -- 60 basis points adjustment.
3
- 4 • August 1, 2002 for Philadelphia Suburban Water Company in Docket No.
5 R-00016750 -- 80 basis points adjustment.
6
- 7 • January 29, 2004 for Pennsylvania-American Water Company in Docket
8 No. R-00038304 (affirmed by the Commonwealth Court on November 8,
9 2004) -- 60 basis points adjustment.
10
- 11 • August 5, 2004 for Aqua Pennsylvania, Inc. in Docket No. R-00038805 --
12 60 basis points adjustment.
13
- 14 • December 22, 2004 for PPL Electric Utilities Corporation in Docket No.
15 R-00049255 -- 45 basis points.
16
- 17 • February 8, 2007 for PPL Gas Utilities Corporation in Docket No. R-
18 00061398 -- 70 basis points adjustment.
19

20 It must be recognized that in order to make the DCF results relevant to the
21 capitalization measured at book value (as is done for rate setting purposes), the
22 market-derived cost rate cannot be used without modification. As I will explain
23 later in my testimony, the DCF model can be modified to account for differences in
24 risk attributed to changes in financial leverage when market prices and book values
25 diverge.

26 **Q. Please explain the dividend yield component of a DCF analysis.**

27 A. The DCF methodology requires the use of an expected dividend yield to establish
28 the investor-required cost of equity. For the twelve months ended January 2007, the
29 monthly dividend yields of the Electric Group are shown graphically on Schedule 8.
30 The monthly dividend yields shown on Schedule 8 reflect an adjustment to the
31 month-end prices to reflect the build up of the dividend in the price that has
32 occurred since the last ex-dividend date (i.e., the date by which a shareholder must

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1 own the shares to be entitled to the dividend payment – usually about two to three
2 weeks prior to the actual payment). An explanation of this adjustment is provided
3 in Appendix E.

4 For the twelve months ending January 2007, the average dividend yield was
5 4.36% for the Electric Group based upon a calculation using annualized dividend
6 payments and adjusted month-end stock prices. The dividend yields for the more
7 recent six- and three- month periods were 4.15% and 4.06%, respectively, for the
8 Electric Group. I have used, for the purpose of my direct testimony, a dividend
9 yield of 4.15% for the Electric Group, which represents the six-month average
10 yield. The use of this dividend yield will reflect current capital costs, while
11 avoiding spot yields.

12 For the purpose of a DCF calculation, the average dividend yields must be
13 adjusted to reflect the prospective nature of the dividend payments i.e., the higher
14 expected dividends for the future. Recall that the DCF is an expectational model
15 that must reflect investor anticipated cash flows for the Electric Group. I have
16 adjusted the six-month average dividend yield in three different, but generally
17 accepted manners, and used the average of the three adjusted values as calculated in
18 Appendix E. That adjusted dividend yield is 4.29% for the Electric Group.

19 **Q. Please explain the underlying factors that influence investor's growth**
20 **expectations.**

21 A. As noted previously, investors are interested principally in the future growth of their
22 investment (i.e., the price per share of the stock). As I explain in Appendix E,
23 future earnings per share growth represents the primary focus because under the

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1 constant price-earnings multiple assumption of the DCF model, the price per share
2 of stock will grow at the same rate as earnings per share. In conducting a growth
3 rate analysis, a wide variety of variables can be considered when reaching a
4 consensus of prospective growth. The variables that can be considered include:
5 earnings, dividends, book value, and cash flow stated on a per share basis.
6 Historical values for these variables can be considered, as well as analysts' forecasts
7 that are widely available to investors. A fundamental growth rate analysis also can
8 be formulated, which consists of internal growth (" $b \times r$ "), where " r " represents the
9 expected rate of return on common equity and " b " is the retention rate that consists
10 of the fraction of earnings that are not paid out as dividends. The internal growth
11 rate can be modified to account for sales of new common stock -- this is called
12 external growth (" $s \times v$ "), where " s " represents the new common shares expected to
13 be issued by a firm and " v " represents the value that accrues to existing
14 shareholders from selling stock at a price different from book value. Fundamental
15 growth, which combines internal and external growth, provides an explanation of
16 the factors that cause book value per share to grow over time. Hence, a
17 fundamental growth rate analysis is duplicative of expected book value per share
18 growth.

19 Growth also can be expressed in multiple stages. This expression of growth
20 consists of an initial "growth" stage where a firm enjoys rapidly expanding markets,
21 high profit margins, and abnormally high growth in earnings per share. Thereafter,
22 a firm enters a "transition" stage where fewer technological advances and increased
23 product saturation begin to reduce the growth rate and profit margins come under

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1 pressure. During the "transition" phase, investment opportunities begin to mature,
2 capital requirements decline, and a firm begins to pay out a larger percentage of
3 earnings to shareholders. Finally, the mature or "steady-state" stage is reached
4 when a firm's earnings growth, payout ratio, and return on equity stabilizes at levels
5 where they remain for the life of a firm. The three stages of growth assume a step-
6 down of high initial growth to lower sustainable growth. Even if these three stages
7 of growth can be envisioned for a firm, the third "steady-state" growth stage, which
8 is assumed to remain fixed in perpetuity, represents an unrealistic expectation
9 because the three stages of growth can be repeated. That is to say, the stages can be
10 repeated where growth for a firm ramps-up and ramps-down in cycles over time.

11 **Q. What investor-expected growth rate is appropriate in a DCF calculation?**

12 A. Although some DCF proponents would advocate that mathematical precision
13 should be followed when selecting a growth rate (i.e., precise input variables
14 employed within the confines of fundamental growth described above), the fact is
15 that investors, when establishing the market prices for a firm, do not behave in the
16 same manner assumed by the constant growth rate model using the accounting
17 values necessary to calculate fundamental growth. Rather, investors consider both
18 company-specific variables and overall market sentiment (i.e., level of inflation
19 rates, interest rates, economic conditions, etc.) when balancing their capital gains
20 expectations with their dividend yield requirements. I follow an approach that is
21 not rigidly formatted, because investors are not influenced by a single set of
22 company-specific variables weighted in a formulaic manner. Therefore, in my
23 opinion, all relevant growth rate indicators must be evaluated using a variety of

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1 techniques, when formulating a judgment of investor expected growth.

2 **Q. Before presenting your analysis of the growth rates that apply specifically to**
3 **the Electric Group, can you provide an overview of the macroeconomic factors**
4 **that influence investor growth expectations for common stocks?**

5 A. Yes. As a preliminary matter, it is useful to view macroeconomic forecasts that
6 influence stock prices. Forecast growth of the Gross Domestic Product ("GDP")
7 can represent the starting point for this analysis. The GDP has both "product side"
8 and "income side" components. The product side of the GDP is comprised of: (i)
9 personal consumption expenditures; (ii) gross private domestic investment; (iii) net
10 exports of goods and services; and (iv) government consumption expenditures and
11 gross investment. On the income side of the GDP, the components are: (i)
12 compensation of employees; (ii) proprietors' income; (iii) rental income; (iv)
13 corporate profits; (v) net interest; (vi) business transfer payments; (vii) indirect
14 business taxes; (viii) consumption of fixed capital; (ix) net receipts/payment to the
15 rest of the world; and (x) statistical discrepancy. The "product side," (i.e., demand
16 components) could be used as a long-term representation of revenue growth for
17 public utilities. However, it is well known that revenue growth does not necessarily
18 equal earnings growth. There is no basis to assume that the same growth rate would
19 apply to revenues and all components of the cost of service, especially after the
20 troublesome issues of employees' costs and insurance costs are resolved in the
21 long-term for public utilities. The earnings growth rates for utilities will be
22 substantially affected by changes in operating expenses and capital costs. At
23 present, there is a bearish sentiment for the industry that has arisen from uncertain

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1 regulatory policies, and significant cost pressures, especially in the area of
2 employee costs (i.e., pension and health care benefits) and insurance costs. The
3 dilutive impact of recent sales of new common stock also has had a negative effect
4 on the earnings prospects of utilities.

5 The long-term consensus forecast that is published semi-annually by the
6 Blue Chip Economic Indicators ("Blue Chip") should be used as the source of
7 macroeconomic growth. Blue Chip is a monthly publication that provides forecasts
8 incorporating a wide variety of economic variables assembled from a panel of more
9 than 50 noted economists from the banking, investment, industrial, and consulting
10 sectors whose advice affects the investment activities of market participants. It is
11 preferable to use a consensus forecast taken from a large panel of contributors,
12 rather than to rely upon one source that may not be representative of the types of
13 information that have an impact on investor expectations. Indeed, Blue Chip is
14 frequently quoted in "The Wall Street Journal," "The New York Times," "Fortune,"
15 "Forbes," and "Business Week." Twice annually, Blue Chip provides long-range
16 consensus forecasts. Based upon the October 10, 2006 issue of Blue Chip, those
17 forecasts are:

<u>Blue Chip Economic Indicators</u>		
<u>Averages</u>	<u>Nominal GDP</u>	<u>Corporate Profits, Pretax</u>
2008-12	5.2%	5.4%
2013-17	5.1%	5.8%

18 These forecasts show that growth in corporate profits generally will exceed growth
19 in overall GDP. It also is indicated historically that the percentage change in

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1 corporate profits has been higher than the percentage change in GDP.¹

2 **Q. What data have you considered in your growth rate analysis?**

3 A. I have considered the growth in the financial variables shown on Schedules 9 and
4 10. The bar graph provided on Schedule 9 shows the historical growth rates
5 covering 5-year and 10-year periods in earnings per share, dividends per share,
6 book value per share, and cash flow per share for the Electric Group. The historical
7 growth rates were taken from the Value Line publication that provides these data.
8 The historical average earnings per share growth have been negative for the Electric
9 Group and, hence, no growth rates for earnings per share are shown on Schedule 9.

10 Schedule 10 provides projected earnings per share growth rates taken from
11 analysts' forecasts compiled by IBES/First Call, Zacks, Reuters/MarketGuide, and
12 from the Value Line publication. The forecasts generally are based upon analysts'
13 projections for a 5-year period. IBES/First Call, Zacks, and Reuters/MarketGuide
14 represent reliable authorities of projected growth upon which investors rely.
15 Thomson Financial has acquired the entity that published the IBES consensus
16 forecasts, and Reuters/MarketGuide is the entity that provides the Multex data. The
17 IBES/First Call, Zacks, and Reuters/MarketGuide forecasts are limited to earnings
18 per share growth, while Value Line makes projections of other financial variables.
19 The Value Line forecasts of dividends per share, book value per share, and cash
20 flow per share also have been included on Schedule 10 for the Electric Group.

21 **Q. What specific evidence have you considered in the DCF growth analysis?**

¹ Obviously, growth in corporate profits is negatively impacted during recessionary periods, but on average corporate profits have grown historically over two percentage points faster than GDP since 1934.

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1 A. As to the five-year forecast growth rates, Schedule 10 indicates that the projected
2 earnings per share growth rates for the Electric Group are 6.89% by IBES/First
3 Call, 6.20% by Zacks, 5.77% by Reuters/MarketGuide, and 5.81% by Value Line.
4 The Value Line projections indicate that earnings per share for the Electric Group
5 will grow prospectively at a more rapid rate (i.e., 5.81%) than the dividends per
6 share (i.e., 3.92%), which indicates a declining dividend payout ratio for the future.
7 As indicated earlier, and in Appendix E, with the constant price-earnings multiple
8 assumption of the DCF model, growth for these companies will occur at the higher
9 earnings per share growth rate, thus producing the capital gains yield expected by
10 investors.

11 **Q. Is the five-year investment horizon associated with the analysts' forecasts**
12 **consistent with the assumptions implicit in the DCF model?**

13 A. Yes. Investors do not view their expected returns as the product of an endless
14 stream of growing dividends (e.g., a century of cash flows). Instead, it is the
15 growth in the share value (i.e., capital appreciation, or capital gains yield), as
16 represented by the analysts' forecast, that is most relevant to investors' total return
17 expectations. Hence, the future appreciation in the price of a stock can be viewed
18 as a "liquidating dividend" (i.e., the final cash flow associated with the ultimate sale
19 of stock) that can be discounted along with the annual dividend receipts during the
20 investment-holding period to arrive at the investor expected return. The growth in
21 the price per share will equal the growth in earnings per share absent any change in
22 price-earnings (P-E) multiple -- a necessary assumption of the DCF. As such, my
23 company-specific growth analysis, which focuses principally upon five-year

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1 forecasts of earnings per share growth, conforms to the type of analysis that
2 influences the total return expectation of investors.

3 **Q. What conclusion have you drawn from these data?**

4 A. Ideally, historical and projected earnings per share and dividends per share growth
5 indicators could be used to provide an assessment of investor growth expectations
6 for a firm, however, the circumstances of the Electric Group mandate that the
7 greater emphasis be placed upon projected earnings per share growth. The massive
8 restructuring of the utility industry suggests that historical evidence alone does not
9 represent a complete measure of growth for these companies. Rather, projections of
10 future earnings growth provide the principal focus of investor expectations. In this
11 regard, it is worthwhile to note that Professor Myron Gordon, the foremost
12 proponent of the DCF model in rate cases, established that the best measure of
13 growth in the DCF model is forecasts of earnings per share growth.² Hence, to
14 follow Professor Gordon's findings, projections of earnings per share growth, such
15 as those published by IBES/First Call, Zacks, Reuters/MarketGuide, and Value
16 Line, represent a reasonable assessment of investor expectations.

17 It is appropriate to consider all forecasts of earnings growth rates that are
18 available to investors. In this regard, I have considered the forecasts from
19 IBES/First Call, Zacks, Reuters/MarketGuide and Value Line. The IBES/First Call,
20 Zacks, and Reuters/MarketGuide growth rates are consensus forecasts taken from a
21 survey of analysts that make projections of growth for these companies. The

² "Choice Among Methods of Estimating Share Yield," The Journal of Portfolio Management, spring 1989 by Gordon, Gordon & Gould.

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1 IBES/First Call, Zacks, and Reuters/MarketGuide estimates are obtained from the
2 Internet and are widely available to investors free-of-charge. IBES/First Call is
3 probably quoted most frequently in the financial press when reporting on earnings
4 forecasts, while Reuters/MarketGuide is a leading provider of financial data on the
5 Internet. The Value Line forecasts also are widely available to investors and can be
6 obtained by subscription or free of charge at most public and collegiate libraries.

7 The forecasts of earnings per share growth, as shown on Schedule 10,
8 provide a range of growth rates of 5.77% to 6.89%. To those company-specific
9 growth rates, consideration also must be given to long-term growth in corporate
10 profits. Although the DCF growth rates cannot be established solely with a
11 mathematical formulation, it is my opinion that an investor-expected growth rate of
12 6.25% is within the array of earnings per share growth rates shown by the analysts'
13 forecasts and the forecast growth in overall corporate profits. The Value Line
14 forecast of dividend per share growth is inadequate in this regard due to the forecast
15 decline in the dividend payout that I previously described. As I previously
16 indicated, the consolidation now taking place in the utility industry creates
17 additional opportunities as the utility industry successfully adapts to the new
18 business environment. These changes in growth fundamentals will undoubtedly
19 develop beyond the next five years typically considered in the analysts' forecasts
20 and will enhance the growth prospects for the future. As such, a 6.25% growth rate
21 will accommodate all of these factors.

22 **Q. Please explain why the sum of the dividend yield and growth rate does not**
23 **provide a complete representation of the cost of equity.**

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1 A. With the repeal of the 1935 Public Utility Holding Company Act ("PUHCA"),
2 merger and acquisition ("M&A") activity, which already has been prevalent in the
3 utility industry, is expected to accelerate. Indeed, since the last case for PPL
4 Electric, two of the proxy group companies (i.e., Duquesne Light Holdings and
5 Green Mountain Power) have become targets for acquisition. Acquisitions usually
6 are accomplished at premiums offered to induce stockholders to sell their shares.
7 These premiums create a ripple effect on the stock prices of all utilities, just like a
8 rising tide lifts all boats. Due to M&A activity, there has been a run-up of the stock
9 prices for some utility companies. With these elevated stock prices, dividend yields
10 fall, and without some adjustment to the growth component of the DCF model, the
11 results become unduly depressed by reference to alternative investment
12 opportunities – such as public utility bonds. With stock prices being influenced by
13 M&A activity, the DCF model of the cost of equity becomes less reflective of the
14 risks associated with the underlying fundamentals of a company. There are
15 remedies available to deal with potentially anomalous DCF results, which include
16 an adjustment to the DCF model to reflect the divergence of market capitalization
17 and the book value capitalization and supplementing the DCF results with other
18 measures of the cost of equity.

19 As demonstrated in Appendix E, the divergence of stock prices from book
20 values creates a conflict when the results of a market-derived cost of equity are
21 applied to the common equity ratio measured at book value, which is the measure
22 used in calculating the weighted average cost of capital. This is the situation today,
23 where the market price of stock exceeds its book value for the companies in my

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1 proxy group. This divergence of price and book value creates a financial risk
2 difference, whereby the capitalization of a utility measured at its market value
3 contains relatively less debt and more equity than the capitalization measured at its
4 book value.

5 **Q. What are the implications of a DCF derived return that is related to market**
6 **value when the results are applied to the book value of a utility's**
7 **capitalization?**

8 A. The capital structure ratios measured at the utility's book value show more financial
9 leverage, and higher risk, than the capitalization measured at its market values.
10 Please refer to Appendix E for the comparison. This means that a market-derived
11 cost of equity, using models such as DCF and CAPM, reflects a level of financial
12 risk that is different from that shown by the book value capitalization. Hence, it is
13 necessary to adjust the market-determined cost of equity upward to reflect the
14 higher financial risk related to the book value capitalization used for ratesetting
15 purposes. Failure to make this modification would result in a mismatch of the
16 lower financial risk related to market value used to measure the cost of equity and
17 the higher financial risk of the book value capital structure used in the ratesetting
18 process. Because the ratesetting process utilizes the book value capitalization when
19 computing the weighted average cost of capital, it is necessary to adjust the market-
20 determined cost of equity for the higher financial risk related to the book value of
21 the capitalization.

22 **Q. How is the DCF-determined cost of equity adjusted for the financial risk**
23 **associated with the book value of the capitalization?**

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1 A. In pioneering work, Nobel laureates Modigliani and Miller developed several
2 theories about the role of leverage in a firm's capital structure. As part of that work,
3 Modigliani and Miller established that, as the borrowing of a firm increases, the
4 expected return on stockholders' equity also increases. This principle is
5 incorporated into my leverage adjustment that recognizes that the expected return
6 on equity increases to reflect the increased risk associated with the higher financial
7 leverage shown by the book value capital structure, as compared to the market
8 value capital structure that contains lower financial risk. Modigliani and Miller
9 proposed several approaches to quantify the equity return associated with various
10 degrees of debt leverage in a firm's capital structure. These formulas point toward
11 an increase in the equity return associated with the higher financial risk of the book
12 value capital structure. As detailed in Appendix E, the Modigliani and Miller
13 theory shows that the cost of equity increases by 0.47% (11.01% - 10.54%) for the
14 Electric Group when the book value of equity, rather than the market value of
15 equity, is used in determining the weighted average cost of capital for ratesetting
16 purposes.

17 **Q. Please provide the DCF return based upon your preceding discussion of**
18 **dividend yield, growth, and leverage.**

19 A. As explained previously, I have utilized a six-month average dividend yield
20 (" D_1/P_0 ") adjusted in a forward-looking manner for my DCF calculation. This
21 dividend yield is used in conjunction with the growth rate (" g ") previously
22 developed. The DCF also includes the leverage modification (" $lev.$ ") required
23 when the book value equity ratio is used in determining the weighted average cost

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1 of capital in the ratesetting process rather than the market value equity ratio related
2 to the price of stock. The resulting DCF cost rate is:

$$D_1/P_0 + g + lev. = k$$

Electric Group 4.29% + 6.25% + 0.47% = 11.01%

3 The DCF result shown above represents the simplified (i.e., Gordon) form of the
4 model that contains a constant growth assumption. I should reiterate, however, that
5 under this form of the DCF model, the indicated cost rate provides an explanation
6 of the rate of return on common stock market prices without regard to the prospect
7 of a change in the price-earnings multiple. An assumption that there will be no
8 change in the price-earnings multiple is not supported by the realities of the equity
9 market, because price-earnings multiples do not remain constant.

10 RISK PREMIUM ANALYSIS

11 **Q. Please describe your use of the Risk Premium approach to determine the cost
12 of equity.**

13 A. The details of my use of the Risk Premium approach and the evidence in support of
14 my conclusions are set forth in Appendix G. I will summarize them here. With this
15 method, the cost of equity capital is determined by corporate bond yields plus a
16 premium to account for the fact that common equity is exposed to greater
17 investment risk than debt capital. As with other models of the cost of equity, the
18 Risk Premium approach has its limitations, including an accurate assessment of the
19 future cost of corporate debt and the measurement of the risk-adjusted common
20 equity premium.

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1 **Q. What long-term public utility debt cost rate did you use in your risk premium**
2 **analysis?**

3 A. In my opinion, a 6.25% yield represents a reasonable estimate of the prospective
4 yield on long-term A-rated public utility bonds for the rate effective period. As I
5 will subsequently show, the Moody's index and the Blue Chip forecasts support this
6 figure.

7 The historical yields for long-term public utility debt are shown graphically
8 on page 1 of Schedule 11. For the twelve months ended January 2007, the average
9 monthly yield on Moody's A-rated index of public utility bonds was 6.09%. For
10 the six and three-month periods ended January 2007, the yields were 5.96% and
11 5.86%, respectively. During the twelve months ended January 2007, the range of
12 the yields on A-rated public utility bonds was 5.80% to 6.42%.

13 **Q. What are the implications of emphasizing recent data taken from a period of**
14 **relatively low interest rates?**

15 A. The low interest rates in 2003-'04 were, in part, the product of the Federal Open
16 Market Committee ("FOMC") policy. In the two-year period between June 2004
17 and June 2006, the FOMC increased the Fed Funds rate in seventeen 25 basis point
18 increments. These policy actions, which have brought the Fed Funds rate to 5.25%,
19 are widely interpreted as part of the process of moving toward a more neutral range
20 for monetary policy. Current interest rates are characterized by a relatively flat to
21 slightly inverted yield curve, which has endured longer than would have been
22 expected.

23 **Q. What forecasts of interest rates have you considered in your analysis?**

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1 A. I have determined the prospective yield on A-rated public utility debt by using the
 2 Blue Chip Financial Forecasts (“Blue Chip”) along with the spread in the yields that
 3 I describe above and in Appendix G. Blue Chip is a reliable authority and contains
 4 consensus forecasts of a variety of interest rates compiled from a panel of banking,
 5 brokerage, and investment advisory services. In early 1999, Blue Chip stopped
 6 publishing forecasts of yields on A-rated public utility bonds because the Federal
 7 Reserve deleted these yields from its Statistical Release H.15. To independently
 8 project a forecast of the yields on A-rated public utility bonds, I have combined the
 9 forecast yields on long-term Treasury bonds published on January 1, 2007 and the
 10 yield spread of 1.00% that I describe in Appendix G. For comparative purposes, I
 11 also have shown the Blue Chip forecast of yields of Aaa-rated and Baa-rated
 12 corporate bonds. These forecasts are:

		<u>Blue Chip Financial Forecasts</u>			<u>A-rated Public Utility</u>	
<u>Year</u>	<u>Quarter</u>	<u>Corporate</u>		<u>30-Year Treasury</u>	<u>Spread</u>	<u>Yield</u>
		<u>Aaa-rated</u>	<u>Baa-rated</u>			
2007	First	5.5%	6.4%	4.8%	1.0%	5.8%
2007	Second	5.6%	6.5%	4.8%	1.0%	5.8%
2007	Third	5.7%	6.6%	4.9%	1.0%	5.9%
2007	Fourth	5.8%	6.7%	5.0%	1.0%	6.0%
2008	First	5.8%	6.7%	5.0%	1.0%	6.0%
2008	Second	5.9%	6.8%	5.1%	1.0%	6.1%

13 **Q. Are there additional forecasts of interest rates that extend beyond those shown**
 14 **above?**

15 A. Yes. Twice yearly, Blue Chip provides long-term forecast of interest rates. In its
 16 December 1, 2006 publication, the Blue Chip published forecasts of interest rates
 17 are reported to be:

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Blue Chip Financial Forecasts					
<u>Averages</u>	Corporate		30-Year	A-rated Public Utility	
	<u>Aaa-rated</u>	<u>Baa-rated</u>	<u>Treasury</u>	<u>Spread</u>	<u>Yield</u>
2008-12	6.1%	7.0%	5.4%	1.0%	6.4%
2013-17	6.3%	7.1%	5.5%	1.0%	6.5%

1 Given these forecasts of long-term interest rates, a 6.25% yield on A-rated public
2 utility bonds represents a reasonable expectation

3 **Q. What equity risk premium have you determined for public utilities?**

4 A. Appendix G provides a discussion of the financial returns that I relied upon to
5 develop the appropriate equity risk premium for the S&P Public Utilities. I have
6 calculated the equity risk premium by comparing the market returns on utility
7 stocks and the market returns on utility bonds. I chose the S&P Public Utility index
8 for the purpose of measuring the market returns for utility stocks. The S&P Public
9 Utility index is reflective of the risk associated with regulated utilities than some
10 broader market indexes, such as the S&P 500 Composite index. The S&P Public
11 Utility index is a subset of the overall S&P 500 Composite index. Use of the S&P
12 Public Utility index reduces the role of judgment in establishing the risk premium
13 for public utilities. With the equity risk premiums developed for the S&P Public
14 Utilities as a base, I derived the equity risk premium for the Electric Group.

15 **Q. What equity risk premium for the S&P public utilities have you determined
16 for this case?**

17 A. To develop an appropriate risk premium, I analyzed the results for the S&P Public
18 Utilities by averaging (i) the midpoint of the range shown by the geometric mean
19 and median and (ii) the arithmetic mean. This procedure has been employed to

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1 provide a comprehensive way of measuring the central tendency of the historical
2 returns. As shown by the values set forth on page 2 of Schedule 12 the indicated
3 risk premiums for the various time periods analyzed are 5.37% (1928-2006), 6.40%
4 (1952-2006), 5.61% (1974-2006), and 5.83% (1979-2005). The selection of the
5 shorter periods taken from the entire historical series is designed to provide a risk
6 premium that conforms more nearly to present investment fundamentals, and
7 removes some of the more distant data from the analysis.

8 **Q. Do you have further support for the selection of the time periods used in your**
9 **equity risk premium determination?**

10 A. Yes. First, the terminal year of my analysis presented in Schedule 12 represents the
11 returns realized through 2006. Second, the selection of the initial year of each
12 period was based upon the events that I described in Appendix G. These events
13 were fixed in history and cannot be manipulated as later financial data becomes
14 available. That is to say, using the Treasury-Federal Reserve Accord as a defining
15 event, the year 1952 is fixed as the beginning point for the measurement period
16 regardless of the financial results that subsequently occurred. Likewise, 1974
17 represented a benchmark year because it followed the 1973 Arab Oil embargo.
18 Also, the year 1979 was chosen because it began the deregulation of the financial
19 markets. As such, additional data are merely added to the earlier results when they
20 become available, clearly showing that the periods chosen were not driven by the
21 desired results of the study.

22 **Q. What conclusions have you drawn from these data?**

23 A. Using the summary values provided on page 2 of Schedule 12, the 1928-2006

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1 period provides the lowest indicated risk premiums, while the 1952-2006 period
2 provides the highest risk premium for the S&P Public Utilities. Within these
3 bounds, a common equity risk premium of 5.72% ($5.61\% + 5.83\% = 11.44\% \div 2$) is
4 shown from data covering the periods 1974-2006 and 1979-2006. Therefore,
5 5.72% represents a reasonable risk premium for the S&P Public Utilities in this
6 case.

7 As noted earlier in my fundamental risk analysis, differences in risk
8 characteristics must be taken into account when applying the results for the S&P
9 Public Utilities to the Electric Group. I recognized these differences in the
10 development of the equity risk premium in this case. I previously enumerated
11 various differences in fundamentals among the Electric Group and the S&P Public
12 Utilities, including size, market ratios, common equity ratio, return on book equity,
13 operating ratios, coverage, quality of earnings, internally generated funds, and
14 betas. In my opinion, these differences indicate that 5.25% represents a reasonable
15 common equity risk premium in this case. This represents approximately 92%
16 ($5.25\% \div 5.72\% = 0.92$) of the risk premium of the S&P Public Utilities and is
17 reflective of the risk of the Electric Group compared to the S&P Public Utilities.

18 **Q. What common equity cost rate would be appropriate using this equity risk
19 premium and the yield on long-term public utility debt?**

20 **A.** The cost of equity (i.e., "*k*") is represented by the sum of the prospective yield for
21 long-term public utility debt (i.e., "*i*"), the equity risk premium (i.e., "*RP*"). The
22 Risk Premium approach provides a cost of equity of:

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$$i + RP = k$$

$$\text{Electric Group } 6.25\% + 5.25\% = 11.50\%$$

CAPITAL ASSET PRICING MODEL

1
2 **Q. How have you used the Capital Asset Pricing Model to measure the cost of**
3 **equity in this case?**

4 A. Yes. I have used the CAPM in addition to my other methods. As with other
5 models of the cost of equity, the CAPM contains a variety of assumptions that
6 create limitations in the model that I discuss in Appendix H. Therefore, this method
7 should be used with other methods to measure the cost of equity, as each will
8 complement the other and will provide a result that will alleviate the unavoidable
9 shortcomings found in each method.

10 **Q. What are the features of the CAPM as you have used it?**

11 A. The CAPM uses the yield on a risk-free interest bearing obligation plus a rate of
12 return premium that is proportional to the systematic risk of an investment. The
13 details of my use of the CAPM and evidence in support of my conclusions are set
14 forth in Appendix H. To compute the cost of equity with the CAPM, three
15 components are necessary: a risk-free rate of return (" R_f "), the beta measure of
16 systematic risk (" β "), and the market risk premium (" $R_m - R_f$ ") derived from the
17 total return on the market of equities reduced by the risk-free rate of return. The
18 CAPM specifically accounts for differences in systematic risk (i.e., market risk as
19 measured by the beta) between an individual firm or portfolio of firms and the
20 entire market of equities. As such, to calculate the CAPM it is necessary to employ

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1 firms with traded stocks. In this regard, I performed a CAPM calculation for the
2 Electric Group.

3 **Q. What betas have you considered in the CAPM?**

4 A. For my CAPM analysis, I initially considered the Value Line betas. As shown on
5 page 1 of Schedule 13, the average beta is .85 for the Electric Group.

6 **Q. What betas have you used in the CAPM determined cost of equity?**

7 A. The betas must be reflective of the financial risk associated with the ratesetting
8 capital structure that is measured at book value. Therefore, Value Line betas cannot
9 be used directly in the CAPM, unless those betas are applied to a capital structure
10 measured with market values. To develop a CAPM cost rate applicable to a book
11 value capital structure, the Value Line betas have been unleveraged and releveraged
12 for the common equity ratios using book values. This adjustment has been made
13 with the formula:

$$14 \quad \beta l = \beta u [1 + (1 - t) D/E + P/E]$$

15 where βl = the leveraged beta, βu = the unleveraged beta, t = income tax rate, D =
16 debt ratio, P = preferred and preference stock ratio, and E = common equity ratio.

17 The betas published by Value Line have been calculated with the market price of
18 stock and therefore are related to the market value capitalization. By using the
19 formula shown above and the capital structure ratios measured at its market values,
20 the beta would become .55 for the Electric Group if they employed no leverage and
21 were 100% equity financed. With the unleveraged beta as a base, I calculated the
22 leveraged beta of .93 for the Electric Group associated with book value capital
23 structure.

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1 The betas and their corresponding common equity ratios are:

Market Values		Book Values	
Beta	Common Equity Ratio	Beta	Common Equity Ratio
0.85	54.62%	0.93	48.57%

2 The leveraged beta that I will employ in the CAPM cost of equity is .93 for the
3 Barometer Group.

4 **Q. What risk-free rate have you used in the CAPM?**

5 A. For reasons explained in Appendix F, I have employed the yields on 20-year
6 Treasury bonds using both historical and forecast data to match the longer-term
7 horizon associated with the ratesetting process. As shown on pages 2 and 3 of
8 Schedule 13, I provided the historical yields on 20-year Treasury bonds. For the
9 twelve months ended January 2007, the average yield was 5.02%, as shown on page
10 3 of that schedule. For the six- and three-months ended January 2007, the yields on
11 20-year Treasury bonds were 4.91% and 4.84%, respectively. During the twelve-
12 months ended January 2007, the range of the yields on 20-year Treasury bonds was
13 4.73% to 5.35%. As shown on page 4 of Schedule 13, forecasts published by Blue
14 Chip on January 1, 2007 indicate that the yields on long-term Treasury bonds are
15 expected to increase to 5.1% during the next six quarters. The longer-term forecasts
16 described previously, show that the yields on Treasury bonds will average 5.4%
17 from 2008 through 2012 and 5.5% from 2013 to 2017. I have used a 5.25% risk-
18 free rate of return for CAPM purposes.

19 **Q. What market premium have you used in the CAPM?**

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1 A. As developed in Appendix H, the market premium is developed by averaging
2 historical market performance (i.e., 6.5%) and the forecasts (i.e., 6.44%). The
3 historical market premium is derived from the SBBI Yearbook and the forecasts are
4 developed from data published by Value Line and a DCF calculation for the S&P
5 500 Composite. The resulting market premium is 6.47% ($6.5\% + 6.44\% = 12.94\%$
6 $\div 2$), which represents the average market premium using the historical and forecast
7 data.

8 **Q. Are there adjustments to the CAPM that are necessary to fully reflect the rate**
9 **of return on common equity?**

10 A. Yes. The technical literature supports an adjustment relating to the size of the
11 company or portfolio for which the calculation is performed. There would be an
12 understatement of the cost of equity using the CAPM unless the size of a firm is
13 considered. That is to say, as the size of a firm decreases, its risk and, hence, its
14 required return increases. Moreover, in his discussion of the cost of capital,
15 Professor Brigham has indicated that smaller firms have higher capital costs than
16 otherwise similar larger firms (see Fundamentals of Financial Management, fifth
17 edition, page 623). Also, the Fama/French study (see "The Cross-Section of
18 Expected Stock Returns"; The Journal of Finance, June 1992) established that size
19 of a firm helps explain stock returns. In an October 15, 1995 article in Public
20 Utility Fortnightly, entitled "Equity and the Small-Stock Effect," it was
21 demonstrated that the CAPM could understate the cost of equity significantly
22 according to a company's size. Indeed, it was demonstrated in the SBBI Yearbook
23 that stocks in lower deciles (i.e., smaller stocks) had returns in excess of those

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1 shown by the simple CAPM. In this regard, Electric Group has an average market
2 capitalization of its equity of \$3,200 million, which would place it in the fourth
3 decile consisting of companies with market capitalization between \$2,519 million
4 and \$3,961 million according to the size of the companies traded on the NYSE,
5 AMEX, and NASDAQ. The third through fifth deciles comprise the mid-cap group
6 of stocks. According to the SBBI Yearbook, the mid-cap size premium is 1.02%.

7 **Q. What CAPM result have you determined using the CAPM?**

8 A. Using the 5.25% risk-free rate of return, the leverage adjusted betas of .93 for the
9 Electric Group, the 6.47% market premium, and the size premium adjustment
10 developed previously, the following result is indicated.

$$R_f + \beta (R_m - R_f) + size = K$$

$$\text{Electric Group} \quad 5.25\% + 0.93 (6.47\%) + 1.02\% = 12.29\%$$

11 COMPARABLE EARNINGS APPROACH

12 **Q. How have you applied the Comparable Earnings approach in this case?**

13 A. The technical aspects of my Comparable Earnings approach are set forth in
14 Appendix I. In order to identify the appropriate return on equity for a public utility,
15 it is necessary to analyze returns experienced by other firms within the context of
16 the Comparable Earnings standard. The firms selected for the Comparable
17 Earnings approach should be companies whose prices are not subject to cost-based
18 price ceilings (i.e., non-regulated firms) so that circularity is avoided. To avoid
19 circularity, it is essential that returns achieved under regulation not provide the basis
20 for a regulated return. Because regulated firms must compete with non-regulated

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1 firms in the capital markets, it is appropriate, if not necessary, to view the returns
2 experienced by firms that operate in competitive markets. One must keep in mind
3 that the rates of return for non-regulated firms represent results on book value
4 actually achieved, or expected to be achieved, because the starting point of the
5 calculation is the actual experience of companies that are not subject to rate
6 regulation. The United States Supreme Court has held that:

7 A public utility is entitled to such rates as will permit it to earn
8 a return on the value of the property which it employs for the
9 convenience of the public equal to that generally being made at
10 the same time and in the same general part of the country on
11 investments in other business undertakings which are attended
12 by corresponding risks and uncertainties.... The return should
13 be reasonably sufficient to assure confidence in the financial
14 soundness of the utility and should be adequate, under efficient
15 and economical management, to maintain and support its credit
16 and enable it to raise the money necessary for the proper
17 discharge of its public duties. Bluefield Water Works vs.
18 Public Service Commission, 262 U.S. 668 (1923).
19

20 Therefore, it is important to identify the returns earned by firms that compete for
21 capital with a public utility. This can be accomplished by analyzing the returns of
22 non-regulated firms that are subject to the competitive forces of the marketplace.

23 There are two avenues available to implement the Comparable Earnings
24 approach. One method would involve the selection of another industry (or
25 industries) with comparable risks to the public utility in question, and the results for
26 all companies within that industry would serve as a benchmark. The second
27 approach requires the selection of parameters that represent similar risk traits for the
28 public utility and the comparable risk companies. Using this approach, the business
29 lines of the comparable companies become unimportant. The latter approach is

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1 preferable with the further qualification that the comparable risk companies exclude
2 regulated firms. As such, this approach to Comparable Earnings avoids the circular
3 reasoning implicit in the use of the achieved earnings/book ratios of other regulated
4 firms. Rather, it provides an indication of an earnings rate derived from non-
5 regulated companies that are subject to competition in the marketplace and not rate
6 regulation. Because regulation is a substitute for competitively-determined prices,
7 the returns realized by non-regulated firms with comparable risks to a public utility
8 provide useful insight into a fair rate of return. This is because returns realized by
9 non-regulated firms have become increasingly relevant with the trend toward
10 increased risk throughout the public utility business. Moreover, the rate of return
11 for a regulated public utility must be competitive with returns available on
12 investments in other enterprises having corresponding risks, especially in a more
13 global economy.

14 To identify the comparable risk companies, the Value Line Investment
15 Survey for Windows was used to screen for firms of comparable risks. The Value
16 Line Investment Survey for Windows includes data on approximately 1,700 firms.
17 Excluded from the selection process were companies incorporated in foreign
18 countries and master limited partnerships ("MLPs").

19 **Q. How have you implemented the Comparable Earnings approach?**

20 A. In order to implement the Comparable Earnings approach, non-regulated companies
21 were selected from the Value Line Investment Survey for Windows that have six
22 categories (see Appendix I for definitions) of comparability designed to reflect the
23 risk of the Electric Group. These screening criteria were based upon the range as

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1 defined by the rankings of the companies in the Electric Group. The items
2 considered were: Timeliness Rank, Safety Rank, Financial Strength, Price
3 Stability, Value Line betas, and Technical Rank. The identities of the companies
4 comprising the Comparable Earnings group and its associated rankings within the
5 ranges are identified on page 1 of Schedule 14.

6 Value Line data was relied upon because it provides a comprehensive basis
7 for evaluating the risks of the comparable firms. Because many of the
8 comparability factors, as well as the published returns, are used by investors for
9 selecting stocks, and to the extent that investors rely on the Value Line service to
10 gauge its returns, it is, therefore, an appropriate database for measuring comparable
11 return opportunities.

12 **Q. What data have you used in your Comparable Earnings analysis?**

13 A. I have used both historical realized returns and forecast returns for non-utility
14 companies. As noted previously, I have not used returns for utility companies in
15 order to avoid the circularity that arises from using regulatory-influenced returns to
16 determine a regulated return. It is appropriate to consider a relatively long
17 measurement period in the Comparable Earnings approach in order to cover
18 conditions over an entire business cycle. A ten-year period (5 historical years and 5
19 projected years) is sufficient to cover an average business cycle. Unlike the DCF
20 and CAPM, the results of the Comparable Earnings method can be applied directly
21 to an original cost rate base, because the nature of the analysis relates to book value.
22 Hence, Comparable Earnings approach does not contain the potential
23 misspecification that results from applying the result of market models to an

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1 original cost rate base when prices and book values diverge significantly. The
2 historical rate of return on book common equity was 15.1% using the median value
3 as shown on page 2 of Schedule 14. The forecast rates of return, as published by
4 Value Line, are shown by the 15.0% median values also provided on page 2 of
5 Schedule 14.

6 **Q. What rate of return on common equity have you determined in this case using
7 the Comparable Earnings approach?**

8 A. The average of the historical and forecast median rates of return is:

	<u>Historical</u>	<u>Forecast</u>	<u>Average</u>
Comparable Group Companies	15.10%	15.00%	15.05%

9 The results of the Comparable Earnings method are not sensitive to stock market
10 performance, but rather these results are determined from financial performance in
11 competitive markets that are determined in large measure by the business cycle.

CREDIT QUALITY

13 **Q. What are some of the important factors that influence credit quality?**

14 A. The Company must have the financial strength that will, at a minimum, permit it to
15 maintain a financial profile that is commensurate with the requirements to obtain a
16 solid investment grade bond rating. Strong credit quality is necessary to provide a
17 utility with the highest degree of financial flexibility in order to attract capital on
18 reasonable terms during all economic conditions. Customers also benefit from
19 strong credit quality, because the utility will be able to obtain lower financing costs
20 that are passed on to customers in the form of a lower embedded cost of debt. For

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1 this reason, rates should be established that would allow the maintenance of a
2 financial profile that would support a strong A-bond rating.

3 **Q. What credit quality issues should be considered in this case for PPL Electric?**

4 A. The credit rating agencies are closely monitoring the outcome of this case according
5 to the testimony of Ms. Cannell. Although the business profile score of PPL
6 Electric has improved from a '4,' at the time of the last case, to '3' at present, the
7 Company's financial risk has increased since that case. Within the categories of '1'
8 (excellent) to '10' (vulnerable), regulated transmission and distribution utilities
9 (electric, gas and water) mainly have business profile scores clustered in the '1,'
10 '2,' '3' and '4' categories. The average business profile score for the Electric
11 Group is '3,' which is the same as PPL Electric. However, there is more financial
12 risk associated with the 43.13% common equity ratio proposed in this case as
13 compared to the less risky 46.87% common equity ratio that the Commission
14 accepted in the previous case. As such, PPL Electric has offset its better business
15 profile score with higher financial risk since the time of the Company's previous
16 rate case. This assessment is confirmed by the fact that the credit quality rating of
17 A- by S&P has not changed since that case. In addition, the Company's credit
18 outlook has improved from "negative" in the last case to "stable" in this case.
19 S&P's statement regarding the outlook revision was:

20 "On Jan. 5, 2005, Standard & Poor's Ratings Services affirmed its
21 'A-/A-2' corporate credit rating on PPL Electric Utilities Corp. and
22 revised its outlook on the company to stable from negative
23 following the authorization of a \$194 million rate increase by the
24 Pennsylvania Public Utilities Commission (PPUC). The outlook
25 revision reflects expectations that the rate increase, effective Jan. 1,
26 2005, will allow for material improvement in PPL Electric's

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1 financial profile, which had lagged expectation in recent years.”

2
3 From a credit quality perspective, S&P viewed the Commission’s decision in the
4 Company’s last rate case as being reasonably supportive.

5 CONCLUSION ON COST OF EQUITY

6 **Q. What is your conclusion concerning the Company’s cost of common equity?**

7 A. Based upon the application of a variety of methods and models described
8 previously, it is my opinion that the 11.50% rate of return on common equity is
9 appropriate for the Company and provides recognition for the uncertainty
10 surrounding the fundamentals that will exist after the end of the transition period
11 and the exemplary performance of its management. The reaction of S&P to the
12 Commission’s Order in the Company’s last rate case was favorable. To sustain this
13 assessment of regulation in Pennsylvania, the Commission should continue to be
14 supportive of PPL Electric. It is essential that the Commission employ a variety of
15 techniques to measure the Company’s cost of equity, because of the
16 limitations/infirmities that are inherent in each method. In conclusion, the
17 Company is entitled to an 11.50% rate of return on common equity so that it can
18 compete in the capital markets, maintain reasonable credit quality, and receive
19 recognition of the significant accomplishments that management has achieved.

20 **Q. Does this conclude your direct testimony?**

21 A. Yes, it does.