Circuit Performance Improvement Projects

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.	2009 CI Saved
	ANIMAL GUARDING										
	-Transformer/Line (worst 3 feeders/year)							450	$60,000		
	-Substation OH Exits (line)	1,000			3,000		$20,000	1,500	$20,000		
	DISTRIBUTION AUTOMATION - Line										
	- Install 34KV recloser @ Pana East (1 outage every 2 years)										
	-Install 34KV recloser @ Nokomis, chg Normal Open Point to 398 (reduced exposure to Pana South also)								$50,000		1,600
	- Auto Transfer @ Farina								$50,000		1,500
	- Auto Transfer @ Mason Jct								$90,000		1,450
	- Install Auto-isolating Scheme @ Hutsonville similar to Effingham East								$60,000		950
	- Auto Transfer @ Cissna Park tap, chg Normal Open point to 644 (1 outage every 2 years for Onarga)								$125,000		1,050
	SUBTRANSMISSION PROJECTS								$100,000		1,100
	Modifying structures in 69KV line to prevent large cascades										
	-Gilman-Fairbury							800	$200,000		
	-Fairbury-Gibson City							600	$150,000		
	-Hoopeston-Watseka							1,250	$230,000		
	Matt J also looking at c-truss - could decrease costs did about 100 poles this year on OT & weekends										
	Danville-Ridgeview 69KV CIPS/IP Tie										
	OVERHEAD PRIMARY REPLACEMENTS										
	-Shelbyville N Reconductor (ISP-D91069)				300			868			
X92508	Reconfigure/resag Distribution Line (CKT X92508)				350		$50,000	350			
	Addressing Overloaded Transformers	500			300			200			
	Line - aggressively implement gloving policy	1,000			1,500			1,000			
	-Effingham NW 503 Loop (ISP-D33145)							600			
	-Fairbury - Fairbury E 12KV Tie (ISP-D27366)							250			
	-Assumption-Moweaqua Tie				235						
	-Sibley Conversion & Tie							100			
Y60593	Lightning Protection (CKT Y60593)						$80,000	775			

Circuit Performance Improvement Projects

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.	2009 CI Saved
Y45503	12 kV LA's - 8-12 per mile-more aggressive Bismark Upgrade						$106,000	113			
	Champaign-Urbana Agreement	2,500			2,000			1,000			
Totals		5,000	$0	$0	7,685	$0	$256,000	9,856	$1,135,000	$0	7,650

Tap Fusing & Coordination

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	Tap Fusing (IP, CIPS, CILCO)	7,000			3,571	$202,000		2,500	$200,000	
	Performing Fuse Coordination Studies	4,000			1,500			500		
Totals		11,000	$0	$0	5,071	$202,000	$0	3,000	$200,000	$0

Multiple Device Interruptions

Circuit	Brief Project Description Previous SAIFI Projects	2006 CI Saved 5,000	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved 3,000	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved 2,000	2008 Costs	2008 Add'l Costs Req.
Totals		5,000	$0	$0	3,000	$0	$0	2,000	$0	$0

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	ICC WORST PERFORMING CIRCUITS									
502	ICC Worst Performing Circuit Worst Performing Circuits (worst 3 feeders/yr)	500					$125,000	1,200		$130,000
List of Distribution Circuits w/SAIFI > 2.0										
X75558								0		
Y12560								0		
Y60548								0		
Y20522								0		
X03533	Completed in 2006.							0		
X23505					40		0	40		
X96524								0		
								0		
X75571	Outages on this circuit in 2006 were a combination of storm related (ice and severe thunderstorm) as well as some not apparently related to storm conditions. The most common effect appears to have been some broken poles and primary wire downed.						102,000	500		

	We plan to replace several bad poles, mostly in Saybrook and the rural area between Saybrook and Arrowsmith. Lightning protection will be added as warranted. We also plan to modify the fault protection, primarily in Saybrook. This should result in better coordination and minimize the effects of faults that may occur. We plan to modfiy the framing and number of poles in some locations on the portion of the circuit immediately east & southeast of Arrowsmith. This line has some longer spans with all four conductors on the 8' crossarm. We estimate the cost of this circuit work at approximately $102,000 and completion of the improvements by the end of 2007.			
Z21563				
X96543				0
X49569				0
P52306				0
Y07576				0
X92507				0
X69556				0
X81555				0
Z21564				0
Y59520				0
X42501				0
Z20542				0
Z10500				0
X92508				0
Total		500	40	1740

Cust exceeding ICC Targets for 3 consecutive years

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	Covered in other programs or project already identified.									
Totals		0	$0	$0	0	$0	$0	0	$0	$0

Inspections & Repairs

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	Division IV has previously been performing these tasks.									
Totals		0	$0	$0	0	$0	$0	0	$0	$0

Underground Cable Replacement

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
Totals		0	$0	$0	0	$0	$0	0	$0	$0

Tree Trimming

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	Tree Trimming (aggressive trimming on overhang)				500		$250,000	500		$250,000
Totals		0	$0	$0	500	$0	$250,000	500	$0	$250,000

Substation Upgrades

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.	2009 CI Saved
	-Fisher N Sub	250			250						
	Aggressively set portables for maintenance	500			3,000		$15,000	2,000		$20,000	
	Animal Guarding Substations										
	-Substation (IP) 6 Champ-1 Dan	2,000						1,000		$245,000	1800
	-Substation (CIPS)				1,250		$60,000	1,250		$75,000	
	DISTRIBUTION AUTOMATION - Substation										
	Windsor Rd. 12kv ATO work										
	-Auto Transfer @ Fairbury	1,000									
	-Auto Transfer @ Albion Elm St				1,400						
	- Install Auto-isolating Scheme @ Gibson City similar to Effingham East						$155,000	1,250			
	- Auto Transfer @ Milford									$181,000	1,350
	- Auto Transfer @ Assumption East, chg Normal Open Point to 323									$182,000	1,200
	- Install Auto-isolating Scheme @ Shelbyville West similar to Effingham East									$191,000	750
	- Auto Transfer @ Flora East									$158,000	1,500
	- Auto Transfer @ Bridgeport West									$115,000	1,250
	- Auto Transfer @ Stoy, chg Normal Open pt to 681									$291,000	1,450
	- Auto transfer scheme on Line 6617 involving Bondville, Mattis and Kirby substations. This project has been committed to the City of Champaign. It is in the 2008 budget, but not as a DA project.									$291,000	400
										$425,000	2,000
Totals		3,750	$0	$0	5,900	$0	$230,000	5,500	$0	$2,174,000	11,700

2007 Reliability Action Plan Performance Report
DIVISION 5
7/18/2007

	[illegible]			[illegible]			COST		[illegible]	
Division Responsibility										
[illegible]	8	3	37.5%	8	1	12.5%			3,180	12,670
[illegible]	77	68	88.3%	77	41	53.2%			7,550	5,700
[illegible]	110	44	40.0%	22	11	50.0%			9,000	7,750
[illegible]	98	78	79.6%	98	7	7.1%			600	600
[illegible]	112	37	33.0%	112	12	10.7%			75	75
[illegible]				89	10	11.2%			870	870
[illegible]	1140	948	83.2%	128	70	54.7%			-	-
[illegible]				3	1	33.3%			100	70
EDTS Responsibility										
[illegible]				1045	512	49.0%			500	500
[illegible]	12	11	91.7%	3	1	33.3%			-	-
[illegible]	4	0	0.0%	6	5	83.3%			5,144	3,270
[illegible]				1069	504	47.1%			-	-
[illegible]	141	20	14.2%						-	-
						Subtotal Division	$ -	$ -	21,375	27,735
						Subtotal EDTS	$ -	$ -	5,644	3,770
						Total	$ -	$ -	27,019	31,505
						Projected CI Avoided			27,019	31,505
						CI Required to Achieve Target			12,887	12,887
						Variation - Plan to Target			14,132	18,618
						Net CI Difference			7,392	26,010
						Division SAIFI Target			1.00	0.90

Division V Reliability Action Plan thru 2008

Project	2006 CI est reduction	2006 current budget	2006 Budget increase needed to meet target	2007 CI est reduction	2007 current budget	2007 Budget increase needed to meet target	2008 CI est reduction	2008 current budget	2008 Budget increase needed to meet target
Circuit Improvement Projects	3016	$160,946	$0	3180	$437,779	$150,000	12670	$111,162	$180,000
Tap Fusing	1700	$135,703	$0	7550	$169,730	$0	5700	$175,154	$0
Multiple Device Interruptions	0	$0	$0	9000	$0	$675,000	7750	$575,000	$78,000
ICC Worst Performing Circuits	500	$0	$0	600	$84,149	$0	600	$89,621	$0
Customers Exceeding ICC Reliability Targets	0	$0	$0	75	$0	$50,000	75	$0	$50,000
Circuit & Device Inspections	0	$0	$0	870	$148,936	$0	870	$158,007	$0
UG Cable Replacement	25	$0	$0	100	$205,000	$0	70	$0	$0
Tree Trimming	0	$0	$0	500	$0	$0	500	$0	$0
Substation Upgrades	946	$0	$0	5144	$3,000	$0	3270	$0	$0
CI reduction savings	6,187	$296,649	$0	27,019	$1,048,594	$875,000	31,505	$1,108,944	$308,000
CI gap	12,927			26,729			26,729		
Division SAIFI Target	1.19			1.00			0.90		

CI Reduction:	64,711
Needed:	66,385
	1,674

Circuit Improvement Projects

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	SECTIONALIZE BACKBONE									
Maryville 376	**Installed OCR bank**				135					
Maryville 293	**Installed Three OCR Banks, recoordinated feeder**				895	$ 75,000				
	ANIMAL GUARDING									
	SUB-TRANSMISSION PROJECTS									
61071	Eliminate overload on circuit				750					
Alton	Hot spot projects				500			500		
	DISTRIBUTION AUTOMATION									
P14335	Install Nu-Lec autosectionlizer at switch 3234 in Line 3335		$101,092				$ 40,000	4744		
	Install ATO Scheme at Caseyville Gardens							2050		180000
Miss-78	Install NuLec Recloser on MISS-78 adjacent to switch 771.This will reserve Bethany and Godfrey Substations by Miss-78 by remote control.						$ 80,000	1500		
Granite City Maryland Sub	**Replace underground feed on M78-323 and relocate switches on M78-324**						$ 30,000	1116		
	OVERHEAD PRIMARY REPLACEMENTS									
K52-400	Replace Hendrix with open wire					$30,000		770		
M49-411	Convert Feed to Glen Hills to Underground					$100,000		65		
R04-413	Convert Feed to Devon Ct to Underground					$125,000		1050		
MRY	SAIFI projects identified through IP program	1781								
HLB	SAIFI projects identified through IP program	1185								
	LIGHTNING PROJECTS									
ATL	Assumes 10% of Lightning caused outages in 2006		$ 59,854		50	$ 58,825		50	$ 60,739	
MRY	Assumes minimal savings from LA's added on routine projects throughout the year	25			525	$ 48,954		500	$ 50,423	
HLB	Assumes minimal savings from LA's added on routine projects throughout the year	25			325			325		
	ADD'L WORST PERFORMING CIRCUITS None									
TOTALS		3016	160,946	0	3180	437,779	150,000	12670	111,162	180,000

Tap Fusing

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
MRY	Circuits were defined by RE group and worked		$ 135,703		4500	$ 169,730		3000	$ 175,154	
HLB	Circuits were defined by RE group and worked				3000			2550		
Alton	Circuits were defined by RE group and worked	1700			50			150		
TOTALS		1700	$ 135,703	0	7550	$ 169,730	0	5700	$ 175,154	0

Multiple Device Interruptions

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	Hiring an engineer to focus exlcusively on Reliability and Planning; study devices with multiple outages, review all outages for accurate data, develop plans and manage projects						$ 75,000			$ 78,000
ALT					2000		$150,000	2250	$175,000	
HLB					3000		$200,000	2750	$200,000	
MRY					4000		$250,000	2750	$200,000	
TOTALS		0	0	0	9000	0	$ 675,000	7750	$575,000	$ 78,000

IPMN 021121
IPMN 021118
IPMN 021098
IPMN 021908
IPMN 021878
IPMN 020787
IPMN 020780
IPMN 020731
IPMN 020336
IPMN 020121
IPMN 020116
IPMN 020112
IPMN 022566
IPMN 022559
IPMN 022538
IPMN 022523
IPMN 022299

16750

ICC Worst Performing Circuits

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
As defined	Assume savings on next worst SAIFI or CAIDI per year	500			600	$84,149		600	$89,621	
TOTALS		500	0	0	600	$84,149	0	600	$89,621	0

Customers Exceeding ICC Reliability Targets

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	To be determined				75		50000	75		50000
	IPMN022332									
	IPMN022042									
	IPMN02193									
TOTALS		0	0	0	75	0	50000	75	0	50000

Circuit & Device Inspections

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
MRY	Replace poles identified from inspection process				300	$148,936		300	$158,007	
HLB	Replace poles identified from inspection process				300			300		
Alton	Replace poles identified from inspection process				270			270		
TOTALS		0	$0	$0	870	$148,936	$0	870	$158,007	$0

Underground Cable Replacement

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
K43-386	Mapleleaf Dr, Collinsville - DOJM 006251	25								
N42-856	Freeport St, Keyesport - DOJM 008687				50					
K11-373	Willow Wood Ct, IPMN 021265				50	$ 75,000				
M49-411	East 30 Trailer Court IPMN 020351					$ 75,000		35		
K09-863	Replace URD and move to front lot lines IPMN021188 - Complete 07-16-07					$ 55,000		35		
TOTALS		25	$0	$0	100	$205,000	$0	70	$0	$0

Tree Trimming

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	All of division 5 - Overall 4 yr average of 14 tree caused outages per/yr. Through prescriptive trimming, a reduction projection of 1 tree caused feeder outage per/yr. With an average feeder outage CI of 500 would assume a 2% of CI saved in 2007 and 2008 from prescriptive backbone trimming.				500			500		
TOTALS		0	$0	$0	500	$0	$0	500	$0	$0

Substation Upgrades

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
M81-405	Replace breaker									
	Edgemont Unit W overload relief - Comp 2005				1044					
Hillsboro	Animal guard Litchfield sub - Comp 2006	946								
Maryville	Animal guard Kate St sub - Complete 06/2007				600					
Alton	Animal guard East Alton Bell St sub							1000		
Hillsboro	Animal guard Mulberry Grove sub - Complete 06-16-07							600		
Maryville	Animal Guard Stallings, R23-332,333,334 - Comp 06-01-07				200	3000				
Hillsboro	Rebuild Sawyerville Switching Station; the station was tripping intermittently and impacting the Brighton and Bunker Hill Substations The project was complete in 2007				3300			1100		
Maryville	Replace transformer at Worden Substation - Complete 2007							570		
TOTALS		946	0	0	5144	3000	0	3270	0	0

2007 Reliability Action Plan Performance Report
DIVISION 6
7/17/2007

	[illegible]			[illegible]			[illegible]		[illegible]	
Division Responsibility										
[illegible]	21	9	42.9%	21	2	9.5%			3,108	17,099
[illegible]	112	24	21.4%	112	10	8.9%			9,005	6,772
[illegible]	36	11	30.6%	1	0	0.0%			5,550	5,550
[illegible]	15	13	86.7%	15	3	20.0%			5,347	6,417
[illegible]	64	0	0.0%	64	0	0.0%			-	3,000
[illegible]				2	0	0.0%			870	870
[illegible]	1181	468	39.6%	32	14	43.8%			-	-
[illegible]				0	0	#DIV/0!			375	895
EDTS Responsibility										
[illegible]				1159	225	19.4%			1,550	1,550
[illegible]	5	1	20.0%	0	0	#DIV/0!			-	-
[illegible]	9	9	100.0%	9	5	55.6%			20,310	17,229
[illegible]				625	399	63.8%			-	-
[illegible]	84	2	2.4%						-	-
						Subtotal Division	$ -	$ -	24,255	40,603
						Subtotal EDTS	$ -	$ -	21,860	18,779
						Total	$ -	$ -	46,115	59,382
						Projected CI Avoided			46,115	59,382
						CI Required to Achieve Target			14,583	14,583
						Variation - Plan to Target			31,532	44,799
						Net CI Difference			28,470	73,269
						Division SAIFI Target			1.05	0.96

Division VI Reliability Action Plan thru 2008

Project	2006 CI est reduction	2006 current budget	2006 Budget increase needed to meet target	2007 CI est reduction	2007 current budget	2007 Budget increase needed to meet target	2008 CI est reduction	2008 current budget	2008 Budget increase needed to meet target
Circuit Improvement Projects	1717	$83,000	$0	3108	$383,751	$381,000	17099	$2,840,000	$300,000
Tap Fusing	800	$218,047	$0	9005	$411,617	$0	6772	$404,403	$0
Multiple Device Interruptions	0	$0	$0	5550	$100,000	$0	5550	$100,000	$0
ICC Worst Performing Circuits	3000	$90,000	$0	5347	$323,000	$0	6417	$100,000	$0
Customers Exceeding ICC Reliability Targets	0	$0	$0	0	$128,000	$0	3000	$130,000	$0
Circuit & Device Inspections	870	$950,000	$0	870	$1,136,927	$0	870	$1,400,000	$0
UG Cable Replacement	300	$166,441	$0	375	$284,175	$0	895	$200,000	$0
Tree Trimming	1000	$447,000	$0	1550	$526,000	$0	1550	$526,000	$0
Substation Upgrades	2178	$65,000	$0	20310	$128,027	$0	17229	$0	$0
CI reduction savings	9,865	$2,019,488	$0	46,115	$3,421,497	$381,000	59,382	$5,700,403	$300,000
CI gap	12,927			26,729			26,729		
Division SAIFI Target	1.34			1.05			0.96		

Circuit Improvement Projects

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	SECTIONALIZE BACKBONE									
	Add OCR's on Ckt 267 (030572)					$ 10,000		1209		
	Add OCR's on Ckt 108 (028554)					$ 23,109		890		
	Add OCR's on Ckt 124 (032086)					$ 27,885		1071		
	Add OCR's on Ckt 910 (S. Red Bud) (030274)					$ 17,026		75		
	Add OCR's on ckt 245 (030288)					$ 18,911		650		
	misc. / estimate								200000	
	ANIMAL GUARDING									
	Animal protection downstream of fuse 127-10 and 127-11		8000		100					
	Animal protection downstream of OCR 267-2		12000		300					
	Increased animal protection and fuse taps downstream of OCR's 108-1		14000		300					
	Misc. / estimate					$ 30,000		300	$ 30,000	
	SUB-TRANSMISSION PROJECTS									
	Add NULEC recloser on L3480 near Lebanon		49000		1908					
	Add two air-break switches on L3470, on either side of Century Brass						30000	10		
	DISTRIBUTION AUTOMATION									
ALT/ESTL	ESL - Install Nulec at Rigde-79, switch #820							3500	40000	
	ESL - Install Nulec at Rigde-78, Pocket Sub								40000	
	Mariknoll Sub ATO								180000	
	Pontiac Sub AS								180000	
	Belle Valley Sub AS								180000	
	Nashville Sub AS								180000	
	Centralia Geary St Sub AS								180000	
	Sunfield Sub AS								180000	
	Texas Sub ATO								180000	
	Mt. Vernon 27th St Sub AS								180000	
	Central City Sub ATO								180000	
	Pleasant St. Sub AS								180000	
	Sandoval Sub AS								180000	
	Brownsfield Rd. Sub AS								180000	
	L3312 - (2) Nulec reclosers at Memorial Hospital Belleville							2124	100000	
	OVERHEAD PRIMARY REPLACEMENTS									
	Replaced section of overloaded hendrix cable on Ckt 155 in Mt. Vernon (P58155)	1467								
108	Relocate three phase OH line in easement on Ckt 108 to underground along street (030054 & 026584)					61000		300		
902 / 903	Create circuit tie in Sparta in commercial area						60000	1700		
156 / 159	Create circuit tie in Mt. Vernon - dojm 026393						61000	1874		
	Replace 10 spans of hendrix on Dartmoth, O'fallon (000687)					75820		650		
	misc. / estimates								250000	
	LIGHTNING PROJECTS									
ESTL	Assumes 10% of Lightning caused outages in 2007				250			250		
AIP	estimate of new transformers and new LA's	250			250	$ 20,000		250	$ 20,000	
	ADD'L WORST PERFORMING CIRCUITS									
291	Waterloo - New Hanover - R94271 (026816)					100000		507		
150	Centralia - K27150						40000	504		
140	Mt. Vernon - J14140						40000	310		
915	Chester - K32915						40000	340		
118	Belleville - J86118						80000	385		
	ESL French Village 307004						30000	200		
	misc. / estimate									300000
TOTALS		1717	83,000	0	3108	363,751	381,000	17090	2,640,000	300,000

Tap Fusing

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	Division VI AmerenIP had no Tap Fusing program in 2005.									
ESTL	Circuits were defined by RE group and worked	0	$ 163,427		8955	$ 220,011		6422	$ 220,000	
		800	$ 54,620		50	$ 176,606		100	$ 184,403	
P58-155	additional fusing on breakoffs in residential area					$ 15,000		250		
TOTALS		800	$ 218,047	0	9005	$ 411,617	0	6772	$ 404,403	0

Multiple Device Interruptions

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	Multiple Device Interruptions	0	0		5550	100000		5550	100000	
TOTALS		0	0	0	5550	100000	$ -	5550	100000	$ -

ICC Worst Performing Circuits

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	Division will assume a CI avoided of approximately 3000 for identified 2004 WPC's after perform g corrective action in 2005	3000								
	2005 WPC' included:									
	Belleville - Q18256, Q95248, R94271, J84 24, J83139, J98101, J88165, K15205		22000		3196					
	Sparta - K32915		12000		500					
	Mt. Vernon - P58155, Q27186		6000		1651					
	2006 WPC's include:									
	Belleville									
	J84124 IPMS032086					27885.07		2956		
	J86108 IPMS031937					34835.3				
	IPMS028552					7064.27				
	IPMS028553					7796.83				
	IPMS028554					23109.7				
	IPMS030054					2745.79				
	IPMS030055					587.41				
	IPMS031240					32658.81				
	Q18245 IPMS000687					75820.65				
	IPMS030288					18911.95				
	IPMS030414					7513.86				
	IPMS030321					28755.7				
	IPMS031241					68508.83				
	East St. Louis									
	342-004 31ES037282					27300		3461		
	341-002 31ES037332					9400				
	302-004 31ES037322					20100				
	335-002 31ES037330					32000				
	308-005 31ES03732					3800				
	302-002 31ES03732					17500				
	338-005 31ES0373 9					21100				
	343-001 31ES0374 2					8200				
	335-003 31ES0373 1					15700				
	346-001 UTILIMAF									
	346-002 UTILIMA									
	344-002 UTILIMA									
	2007 WPC's (estimated cost)									
TOTALS		3000	40000	0	5347	491294.2	0	6417	100000	0

Customers Exceeding ICC Reliability Targets

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	CET Divisioin VI has 64 circuits to review	0	0		0	128000		3000	130000	
TOTALS		0	0	0	0	128000	0	3000	130000	0

Circuit & Device Inspections

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	Circuit and Device Inspections	870	$ 950,000		870	$1,136,927		870	$1,400,000	
TOTALS		870	$950,000	$0	870	$1,136,927	$0	870	$1,400,000	$0

Underground Cable Replacement

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	Division VI had no allocated budget for underground replacements in 2005. However, we did perform a few replacements in areas experiencing multiple underground failures. We feel that we avoided approximately 300 CI in 2006 by these replacements.	300								
	2006 Underground replacements									
	Covered Bridge (4 spans = 1200')		$ 45,000							
	Countryside Dr, Ofallon (1 span = 250')		$ 10,000		$ 100					
	Lisa Ln, Smithton (2 spans = 850')		$ 35,000		$ 50					
	Salem Airport (1 span = 1000')		$ 40,000		$ 50					
	Huntwood Ct. (1 span = 400')		$ 16,000		$ 50					
	misc.		$ 20,441		$ 50					
					$ 75					
	2007 Underground replacements									
	install loop on UG riser 902-65 in Sparta					10000				
	install loop on UG riser 241-87 in Swansea					5000		20		
	Install new ug feed in Albers on ckt 267 (030568)					57564		25		
	ckt 118 Powder Mill Valley(031904, 031895, 030650)					59500		200		
	replace 10 spans of UG primary A St., Sparta (031359)					97111		250		
	Add loop on radial underground Rose Ln, Mt. Vernon (30213)					5000		100		
	Replace bad ug section in Covered Bridge Estates					50000		100		
	2008 Underground replacements							200		
									200000	
TOTALS		300	$166,441	$0	375	$284,175	$0	895	$200,000	$0

Tree Trimming

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	2007 and 2008 CI reduction of 550 due to prescriptive trim - 1 feeder outage.		80000		550	80,000		550	80000	
	2006 thru 2008 CI reduction due to change in cycle length and trimming entire feeder every cycle = 1000 CI	1,000	367000		1000	446,000		1000	446000	
	Back ground information: We discovered that in 2002 several feeders were not trimmed in their entirety in 2002. I believe this explains the spike in tree caused outages by device. The device or taps on these circuits would have 7 years tree growth on them in year 2005. We began trimming these circuits in late 2005 and thru the year in 2006. I believe this accounts for the reduction in CI for tree caused outages. We still have a few of these circuits to trim in the remainder of 2006. Overall this should reduce the average CI for device reclosure by 1000 CI going forward for years 2006 thru 2008									
TOTALS		1,000	$447,000	$0	1,550	$526,000	$0	1,550	$526,000	$0

Substation Upgrades

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	2005									
	Install animal fence at Aviston Sub	2178								
	2006									
	Upgraded high side fuses at Seven Hills Sub to coordinate feeder protection		12000							
	Install fence and animal guard circuits at Pleasant St.Sub in Centralia		10000		3222					
	Added high side LA's to Transformer #1 at 74th St. Sub		8000		2583					
	East Belleville transformer #4 animal guarding		6000		1644					
	High side fuses on transformer #3 at 8th St. Sub upgraded	7000			3625					
	Animal Guarding at Aviston Sub	10000			2483					
	Animal guard transformer #2 at Pontiac Sub	4000			2178					
	Animal guard circuit position 241 at Pontiac Sub	4000			2091					
	Animal guard circuit position 910 at South Red Bud Sub	4000			2124					
	2007				360					
	[redacted]									
	Install electric fence at Marissa					2500				
	Install electric fence at Pinckneyville					4000	938			
	Install electric fence at East Belleville					5000	938			
	Install electric fence at Ashley					20595	640			
						1000	1162			
						17888	2187			
						24788	1312			
	2008					25980	2708			
						26276	6406			
							938			
TOTALS		2178	65000	0	20310	128027	0	17229	0	0

2007 Reliability Action Plan Performance Report
DIVISION VII
8/1/2007

Division Responsibility												
	4	1	25.0%	4	0	0.0%					2,118	3,953
	58	16	27.6%	58	12	20.7%	$ 55,584	$ 134,070			575	1,693
	19	13	68.4%	0	0	#DIV/0!					-	-
	3	3	100.0%	3	3	100.0%					975	72
	0	0	#DIV/0!	0	0	#DIV/0!					-	-
	476	127	26.7%	9	7	77.8%	$ 23,113	$ 291,975			5,914	436
				5	0	0.0%					-	-
				8	2	25.0%					3,136	1,628
EDTS Responsibility												
	3	3	100.0%	445	104	23.4%					75	75
	5	5	100.0%	1	1	100.0%					-	-
				5	0	0.0%					-	1,953
	97	0	0.0%	0	0	#DIV/0!					-	-
											-	-
Subtotal Division							$ 78,697	$ 426,045			12,718	7,782
Subtotal EDTS							$ -	$ -			75	2,028
Total							$ 78,697	$ 426,045			12,793	9,810
Projected CI Avoided											12,793	9,810
CI Required to Achieve Target											950	950
Variation - Plan to Target											11,843	8,860
Net CI Difference											16,070	24,930
Division SAIFI Target											1.19	1.18

Division VII Reliability Action Plan thru 2008

Project	2006 CI est reduction	2006 current budget	2006 Budget increase needed to meet target	2007 CI est reduction	2007 current budget	2007 Budget increase needed to meet target	2008 CI est reduction	2008 current budget	2008 Budget increase needed to meet target
Circuit Improvement Projects	2118	$151,492	$0	2,118	$474,000	$0	3,953	$757,772	$0
Tap Fusing	38	$86,595	$0	575	$138,955	$0	1693	$23,558	$0
Multiple Device Interruptions	0	$0	$0	0	$0	$0	0	$27,071	$0
ICC Worst Performing Circuits	0			975	$ 343,400		72		
Customers Exceeding ICC Reliability Targets	0	$0	$0	0	$0	$0	0	$0	$0
Inspections & Repairs	967	$289,897	$500,000	5914	$291,975	$0	436	$738,444	$0
UG Cable Replacement	2054	$106,805	$250,000	3136	$338,651	$0	1628	$271,191	$0
Tree Trimming	0	$0	$0	75	$0	$0	75	$0	$0
Substation Upgrades	0	$0	$0	0	$0	$150,000	1953	$0	$0
CI reduction savings	5,177	$634,789	$750,000	12,793	$1,586,981	$150,000	9,810	$1,818,036	$0
CI gap	950			950			950		
Division SAIFI Target	1.20			1.19			1.18		

Circuit Improvement Projects

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.	2009 CI Saved
	SECTIONALIZING BACKBONE										
	ANIMAL GUARDING	Division VII has no projects designed nor awaiting construction at this time.									
	SUB-TRANSMISSION PROJECTS										
S84-710	W.O. 15342	2118	$151,492		2118	$0.00		2118	$677,772		
	Expenditures for 2008 are spread as 1296,943 in AmerenCIPS operating company plus $380,828 in AmerenIP operating company. Multi-year project includes, strengthen ng lattice towers, adding dampers, painting towers, providing emergency burce and sectionalizing capability to eliminate maintenance outages. C.I. savings is estimated to be one les permanent outage each year for all Division VII customers on the feeder. This C.I. savings is totally attributable o the Muddy 69KV upgrade since inception in 2005.										
S01-726	W.O. 21743 Texas Eastern Pipeline 69KV (TEPPCO)					$394,000.00		1			
	This project was the result of a thorc ugh pole test in the Spring of 2007. Originally budgeted for 2008, it has been agreed to bring this project forward due to very positive budget results. This project scored well (S.A.C.F. & S.S.P.) even though the C.I. savings is 1, as this dedicated 69KV line serves a large pipeline station.										
	DISTRIBUTION AUTOMATION										
S06-263	Whittington Jct. Remote switch		$0		0	$26,000					
S48-273	East Herrin Remote switch				0	$28,000		307			
T06-203	Thompsonville-Galatia Remote sw ch				0	$26,000		1060			
S11-253	Carbondale, Northwest							467			
S48-272	Herrin, East										
	OVERHEAD PRIMARY REPLACEMEN S	Division VII has no projects designed nor awaiting construction at this time.						$40,000			
	LIGHTNING PROJECTS	Division VII has no projects designed nor awaiting construction at this time.						$40,000		596	
										564	
TOTALS		2118	$151,492	$0	2118	$474,000	$0	3963	$757,772	$0	1160

Tap Fusing & Circuit Coordination

Circuit	Brief Project Description	2006 Cl Saved	2006 Costs	2006 Add'l Costs Req.	2007 Cl Saved	2007 Costs	2007 Add'l Costs Req.	2008 Cl Saved	2008 Costs	2008 Add'l Costs Req.
T06-503	Fuse un-fused taps	22								
T08-501	Fuse un-fused taps	16								
S09-520	Fuse un-fused taps				158					
S47-537	Fuse un-fused taps				123					
S22-594	Fuse un-fused taps				59					
S03-529	Fuse un-fused taps				20					
T06-504	Fuse un-fused taps				29					
S07-535	Fuse un-fused taps				1					
S14-509	Fuse un-fused taps				75					
S86-594	Fuse un-fused taps				42					
T22-507	Fuse un-fused taps				26					
T22-508	Fuse un-fused taps				42					
	2007 CIRCUITS									
ANNA	13 Circuits, 58 un-fused taps							360		
BENTON	12 Circuits, 75 un-fused taps							325		
C'DALE	10 Circuits, 53 un-fused taps							311		
H'BURG	8 Circuits, 59 un-fused taps							301		
MARION	15 Circuits, 62 un-fused taps							289		
MTV	1 Circuit, 18 un-fused taps							107		
TOTALS		38	$86,595	0	575	$138,955	0	1693	$23,558	

Multiple Device Interruptions

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
TOTALS		0	0	0	0	0	0	0	27071	0

Division VII has no projects designed nor awaiting construction at this time.
Budget for 2008 available as needed.

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
	ICC WORST PERFORMING CIRCUITS									
T11-508	73.5 crew hours of small projects in Cypress C.I. savings of 178 represents the prevention of one permanent feeder outage (3 occurred during 2005, making this a W.P.C.)	0	$3,352	$0	178					
	4sha246930: Guying									
	4sha246931: Fusing									
	4sha246932: Gen. clean-up, i.e., guy guards, etc.									
	4sha246933: b.o. poles									
	4sha246935: b.o. pole									
	4sha246936: b.o. crossarms									
T03-503	**WEST FRANKFORT / PERSHING**									
	April, 2006 Major Storm recovery (4sha244698)			252,000	0					
	Replace b.o. ug at shopping cntr (4sha247294)			23,400	14					
	Aug., 2006 Minor Storm recovery (4sha246308)			45,600	167					
S34-527	**GALE** (August - Sept. 2007) Replace 18 poles, two double-arms, roll conductor for mid-span clearance, additional fusing. Specific work order 21616; D.O.J.M. 4sha248847				616	310,000				
	Distribution Circuits w/ SAIFI > 2.0									
S21528	**CARRIER MILLS, SOUTH**									
	Tap Fusing									
	Mid-Cycle trimming completed January, 2007					8,400				
S92557	**NEW HAVEN OIL**						12			
	Mid-Cycle trimming planned for 2007						0			
S27598	**COBDEN, SOUTH**									
	Mid-Cycle trimming completed March, 2006						0			
	Maintenance trimming planned for 2007									
S47576	**HERRIN**						0			
	Mid-Cycle trimming completed July, 2006						0			
S16596	**CARBONDALE, WEST**									
	Completed maintenance trim in January, 2007						0			
S20555	**CARRIER MILLS**									
	Mid-Cycle trimming completed January, 2007						0			
S27599	**COBDEN, SOUTH**									
	Mid-Cycle trimming completed April, 2006						0			
	Maintenance trimming planned for 2007									
S86580	**MURPHYSBORO**						0			
	Install tap fuses (4sha248882)						0			
	Install animal guarding (4sha248882)									
	Maintenance trimming completed July, 2006				17,000		42			
S31532	**ELKVILLE**				8,000		18			
	Mid-Cycle trimming completed February, 2007						0			
S55535	**JONESBORO**									
	Completed maintenance trim in January, 2007						0			
Total		0		975	343,400		72			

Cust Exceeding ICC Reliability Targets 3 consecutive years

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
TOTALS		0	0	0	0	0	0	0	0	0

Division VII has no customers meeting this criteria at this time.

Inspections & Repairs

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
S01-722	W.O. 15452 Pole replacements in Anna to Ohio River	967								
S35-717 S28-226 T06-203 S84-211 S10-281	65 P1 and P2 pole replacements on five different sub-transmission circuits.		$289,897	$500,000	5914					
Div. VII	Unknown locations at this time On-going circuit inspections F.O.D.R. Reports					$291,975		436	$738,444	
TOTALS		967	$289,897	$500,000	5914	$291,975	$0	436	$738,444	$0

Underground Cable Replacement

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
S10-282	W.O. 17267 Replace buried 34KV cable to U-Mall Sub. C.I. savings equates to 3 permanent outages avoided.	2054								
S19-551 T22-507 S66-593 S62-523 T06-503	C.I. savings attributable to six projects to be completed on these five circuits. Sub exit in C'dale, housing dev. In C'dale, shopping center in W.F., shopping center in Marion, Ind. Park in Marion, back-bone feeder section in Marion.		$106,805	$250,000	3114					
S66-593	Marion Plaza Shopping center in Marion (comp)									
S66-594	Substation feeder exit at West Marion Substation (comp)									
S66-593	Town & Country Shopping Center in Marion (09/2007)				22	77440				
S09-521	Backbone 500 KCM Al circuit tie in Cambria (09/2007)					30800		22		
S62-522	Carriage Hills Subdiv. Marion (8/2007; W.O. 22654)					48648		290		
	Murphysboro -- Sandra Court (4sha249784)					38746		28		
	Grand Tower -- Scatters Road (4sha249793)					76707		436		
	Murphysboro -- Suburban Drive (4sha249814)					35383		132		
Div VII	2008 locations not yet determined					9329		322		
						21598		118		
								280		
									271191	
TOTALS		2054	$106,805	$250,000	3136	$338,651	$0	1628	$271,191	$0

Tree Trimming

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
TOTALS		0	$0	$0	75	$0	$0	75	$0	$0

Substation Upgrades

Circuit	Brief Project Description	2006 CI Saved	2006 Costs	2006 Add'l Costs Req.	2007 CI Saved	2007 Costs	2007 Add'l Costs Req.	2008 CI Saved	2008 Costs	2008 Add'l Costs Req.
S60-581	Makanda, North -- Add animal protection fencing						43000	839		
S75-505	McClure -- Add animal protection fencing						37000	213		
S34-527,528	Gale -- Add animal protection fencing						26000	546		
S95-570,571	Norris City, Northeast -- Add animal protection fencing						27000	155		
?	Shawneetown (A-IP) -- Add animal protection fencing						17000	200		
TOTALS		0	$0	$0	0	$0	$150,000	1953	$0	$0

2007 Reliability Action Plan Performance Report

Ameren Illinois

Jan2007 - Dec2007

Division Responsibility												
	180	180	100.0%	161	154	95.7%					40,273	108,743
	606	606	100.0%	590	590	100.0%	#VALUE!	#VALUE!			33,010	31,270
	1,200	1,158	96.5%	191	191	100.0%					33,686	35,458
	75	75	100.0%	75	75	100.0%					17,455	11,843
	215	215	100.0%	148	148	100.0%					247	3,765
				317	317	100.0%	#VALUE!	#VALUE!			2,760	4,066
	11,256	11,083	98.5%	536	524	97.8%					-	-
				104	102	98.1%					8,602	7,813
EDTS Responsibility												
	114	114	100.0%	8,279	8,849	106.9%					6,893	4,525
	73	73	100.0%	37	37	100.0%					-	-
				100	98	98.0%					43,621	38,646
	706	705	99.9%	8,854	8,322	94.0%					2,500	2,500
											-	-
Subtotal Division							#VALUE!	#VALUE!			127,431	195,145
Subtotal EDTS							$ -	$ -			53,014	45,671
Total							#VALUE!	#VALUE!			180,445	240,816
Projected CI Avoided											180,445	240,816
CI Required to Achieve Target											137,124	137,124
Variation - Plan to Target											43,321	103,692
Net CI Difference											16,854	120,545
State SAIFI Target											1.10	1.00

2007 Reliability Action Plan Performance Report

Division I

1/11/2008

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Division Responsibility										
[illegible]	53	53	100.0%	35	33	94.3%			10,487	25,030
[illegible]	98	98	100.0%	82	82	100.0%			4,638	6,984
[illegible]	359	317	88.3%	18	18	100.0%			7,200	8,719
[illegible]	2	2	100.0%	2	2	100.0%			6,627	1,500
[illegible]	1	1	100.0%	1	1	100.0%			30	60
[illegible]				0	0	0.0%			-	870
[illegible]	2582	2573	99.7%	85	84	98.8%			-	-
EDTS Responsibility									3,000	3,000
[illegible]				42	42	100.0%				
[illegible]				1598	1764	110.4%			3,293	500
[illegible]	16	16	100.0%	7	7	100.0%			-	-
[illegible]	0	0	0.0%	33	33	100.0%			2,500	4,467
[illegible]				1570	1525	97.1%			-	-
[illegible]	109	109	100.0%						-	-
Subtotal Division							$ -	$ -	31,982	46,163
Subtotal EDTS							$ -	$ -	5,793	4,967
Total							$ -	$ -	**37,775**	**51,130**
Projected CI Avoided									37,775	51,130
CI Required to Achieve Target									28,676	28,676
Variation - Plan to Target									9,099	22,454
Net CI Difference									1,593	24,046
Division SAIFI Target									**1.14**	**1.04**

2007 Reliability Action Plan Cost Summary

	2007 Cost	2007 Budget	2008 Budget
Circuit Performance Improvement Projects			
Tap Fusing	$678,000	$683,800	$384,000
Multiple Device Interruptions	$91,100	$91,100	$26,000
ICC Worst Performing Circuits	$48,000	$48,000	$48,000
Customers Exceeding Reliability Targets	$46,400	$46,400	$251,000
Circuit Inspections & Repairs	$181,300	$181,300	$10,000
Device Inspections & Repairs		$100,000	$100,000
URD Cable Replacements	$117,000	$117,000	$117,000
	$829,300	$1,000,000	$1,000,000
Vegetation management - Tree Trimming			
Vegetation management - Multple Device Interuptions			
Substation Improvements			
Substation maintenance	$7,500		
S&RM - Circuit Inspections			
Totals	$1,998,600	$2,267,600	$1,936,000

Project No.	Circuit	Description	2007 Cost	2007 Budget	2008 Budget	Engineering status	Assigned to	Target engineering completion date	2006 CI savings	2007 CI savings	2008 CI savings	Total Feeder Outages from 1/1/04 thru 8/11/06	Average Annual Feeder Outages	Average CI per Feeder Outage	Potential CI Improvs
		Sectionalizing Backbone													
1	A80-002	Toulon 2 - no useful application on this circuit		$0		engineering complete	Don Johnson	no work will be done on this circuit		73	73	7	2.7	289	145
2	A81-003	Elm Grove 3 - no useful application on this circuit		$0		engineering complete	Don Johnson	no work will be done on this circuit		215	215	7	2.7	857	429
3	B44-001	Chester 1 - WR 9NOR051866 - completed 12/28/07	$23,300	$23,300		engineering complete	Rick Dolanc	construction completed		153	153	7	2.7	611	305
4	B57-002	Court 2 - WR NOR052003		$12,900		engineering complete	Dan Urbaniak	in construction		240	240	9	3.5	958	480
5	B57-003	Court 3 - no useful application on this circuit		$0		engineering complete	Don Johnson	no work will be done on this circuit		76	76	11	4.2	304	152
6	B65-003	University 3 - WR 9NOR051868 - completed 1/7/08	$25,500	$25,500		engineering complete	Rick Dolanc	construction completed		311	311	7	2.7	1243	622
7	B71-001	Lake 1 - no useful application on this circuit		$0		engineering complete	Don Johnson	no work will be done on this circuit		137	137	5	2	545	273
8	B71-002	Lake 2 - WR 9NOR051668 - completed 12/17/07	$18,500	$18,500		engineering complete	Keith Lowry	construction completed		294	294	9	3.5	1174	587
9	B77-002	Nebraska 2 - no useful application on this circuit		$0		engineering complete		no work will be done on this circuit				8	3.1	340	170
10	D16-004	Northmoor 4 - no useful application on this circuit		$0		engineering complete	Don Johnson	no work will be done on this circuit		286	286	5	2	1143	572
11	D32-212	Edelstein 212 - WR 9NOR051750 - completed 12/14/07	$25,800	$25,800		engineering complete	Steve Honold	construction completed		120	120	5	2	481	240
12	D36-001	Hallock 1 - WR 9NOR051898 - completed 12/27/07	$15,000	$15,000		engineering complete	Steve Honold	construction completed		269	269	7	2.7	1074	537
13	D55-002	Hines 2 - WR 9NOR051781		$46,700		engineering complete	Keith Lowry	in construction		346	346	5	2	1383	692
14	D69-008	Radnor 8 - WR 9NOR051670 - completed 12/19/07	$21,800	$21,800		engineering complete	Keith Lowry	construction completed		309	309	7	2.7	1235	617
15	D81-002	Bradley 2 - no useful application on this circuit		$0		engineering complete	Don Johnson	no work will be done on this circuit		44	44	7	2.7	176	88
16	D96-002	Salem 2 - no useful application on this circuit		$0		engineering complete	Don Johnson	no work will be done on this circuit		24	24	6	2.3	96	48

The premise of this action plan is to reduce the CI on feeders that have experienced multiplewhole feeder outages per year for several years. By installing Reclosers on the feeder backbones we can hopefully turn some of the whole feeder outages into device outages, thus affecting fewer people. The selection criteria for target feeders to analyze is >2 feeder outages (average per year) since 1/1/04. The assumed CI savings potential is then calculated at 1/2 of the customers typically affected, for 1 outage event per year. The potential CI improvements will then be verified by analysis, based on possible and practical Recloser locations found. The potential CI improvements will then be verified by analysis, based on possible and practical Recloser locations found.

		Electronic Reclosers													
17	D69-6	Did not operate when it should have - recl 402815 Radnor 6 - engineering complete. In construction OAS orders 061595940, '061596280	$7,000	$7,000		engineering complete		construction complete		478					
18	A85-1	Operated when it should not have - recl 202461 Sand Prairie 1 - completed OAS orders 062111926, 062112361, 062112392	$7,000	$7,000		engineering complete		construction complete		776					
19	B81-2	Operated when it should not have - recl 102092 Groveland 2 - completed OAS orders 061938197, 061938592	$7,000	$7,000		engineering complete		construction complete		944					
20	B81-2	Operated when it should not have - recl 103347 Groveland 2 - completed OAS orders 061938197, 061938586	$7,000	$7,000		engineering complete		construction complete		1,198					

Replace the Lexington electronic reclosers at four locations due to a history of misoperations. There has been a history of these reclosers either failing to operate when they should or operating when they should not. This has resulted in excessive customer interruptions. This analysis assumes that recent misoperations could have been avoided if the electronic reclosers were replaced by properly coordinated hydraulic reclosers as summarized in the above table.

Infrared Inspections - Underground

Project No.	Circuit	Description	2007 Cost	2007 Budget	2008 Budget	Engineering status	Assigned to	Target engineering completion date	2006 CI savings	2007 CI savings	2008 CI savings	Total Feeder Outages from 1/1/04 thru 8/11/06	Annual Feeder Outages	Annual Feeder Outage	Potential Or Improve
		The premise of this action plan is that various whole feeder outages are caused by underground failures in the exit cable or in the vaults and switches located near the substation. These failures prior to their actual failure. These failing devices can then be replaced without an outage, by doing so during lower load periods, when loads can be switched around to other circuits. The pool of potential improvement candidates is are the feeders that experienced whole feeder outages with a component code of 'UPRI'. The assumption is that we could reduce these outages by 20% with such inspections and proactive repairs. The plan would be to inspect substation exit vaults and switches for feeders loaded over 80% of rating. For the period 1/1/04 thru 7/31/06 we recorded 31 whole feeder outages caused by underground primary failures. These totaled 26,668 CI. Assuming an even time distribution, this 31 month period then translates into an annual average of 12.0 outages and 10,401 CI. A savings of 20% would then be 2,080 CI per year (starting in 2007).													
		Locations:													
21	D81	Bradley Substation distribution exits: 7 manholes from substation up to and including the primary metering equipment on Institute Street. Note: Only one manhole off Bradley could be accessed. Instead one manhole off Radnor Sub. and one manhole off Northmoor Sub. were inspected.				no problems found		no work to be completed							
22	A56	Meyer Substation UG distribution exits: 2 manholes just outside of the substation on Meyer alley				no problems found		no work to be completed							
23	A27	Fisher Network Manhole 215 and vault 216, both on Commercial Street (alley), west of Liberty Street				no problems found		no work to be completed							
		Totals													
		Note: all of the above were inspected in August/September by the infrared contractor	$3,000	$3,000											
		Animal Guarding													
		The premise of this plan is that a lack of animal guards on susceptible transformers contributes to animal caused outages. A previous field survey found that approx 1/3 of transformers with multiple animal outages reported still did not have guards. ASSUMPTION: Adding animal guards to know susceptible locations will cut animal caused outages by 1/2, at those locations. Thus, adding animal guards to unguarded transformers with multiple failures will reduce animal caused outages by 1/6. For the period 1/1/04 thru 7/31/06 there were 20060 CI due to animal interruptions. (Looking only at blown line and transformer fuses) On an annual basis, that would be 7765 CI. A 1/6 reduction would save 1294 CI per year. (Starting in 2007) Work is being completed as part of worst circuit inspections, tap fusing, and customers with multiple interruptions. No specific projects listed in this section.						no specific projects identified in this section			2080				
		Overhead primary replacements													
Galesburg 330		3.5 miles of rebuild in two large areas Two DOJMs Assume 25% CI reduction Prior Year's CI Lightning = 0 Animal = 60 OH Equip = 100 Wind = 173				completed in 2006		construction completed in 2006							
24		Rebuild rural - Assume two outages prevented at 45 CI each (multiple causes) - engineering complete. WR IPNO016830 and IPNO018349 - both completed 11/13/04	$196,800	$143,000		engineering complete		construction complete							
Princeton 161												0 15 25 43			
												90			

Project No.	Circuit	Description	2007 Cost	2007 Budget	2008 Budget	Engineering status	Assigned to	Target engineering completion date	2006 CI savings	2007 CI savings	2008 CI savings	Total Feeder Outages from 1/1/04 thru 8/11/06	Annual Feeder Outages	Feeder Outage Improve
	Cherry 120	Rebuild 3000' in Cherry - Assume two outages prevented at 25 CI each (multiple causes)			$70,000	2008 project		no work in 2007			50			
	Kewanee 312	1000' spacer cable - Assume one outage saved per year 85			$75,000	2008 project		no work in 2007			85			
	Monmouth 123	Rebuild south of Cameron - Assume two outages prevented at 85 CI each			$86,000	2008 project		no work in 2007			170			
	Irwin 191/192	Replace UG feeder exits on both circuits due to failing BCN cable. Assume one circuit outage per year and then taking the other circuit out to reserve the failed circuit (1400 CI for one and 1100 CI for the other)			$103,000	2008 project		no work in 2007			2500			

Lightning Projects

The premise of this action plan is to reduce the CI on underground distribution facilities that are looped with normal open points by installing additional lightning arresters at the first sectionalizing point downstream of the riser fuse and at all normal open point locations.

AmerenCILCO codes most lightning-related outages using cause code OE with lightning listed in the component location/details. Very few other types of outages use the OE cause code at AmerenCILCO. A certain percentage of underground malfunctions (cause code UM) also occur directly due to lightning or the delayed effects of lightning that result from lightning induced stress on the underground equipment.

Through 7/31, there have been 628 CI assigned to cause code OE due to underground equipment failures. Performing a linear extrapolation of this data results in an annual estimate of 1,076 CI attributable to cause code OE due to underground equipment failures.

As discussed under the tab "UG Cable Repl.", AmerenCILCO anticipates that the number of CI due to cable failures (cause code UM) will be reduced to approximately 17,000 after 2006. If we assume that 20% of these cable failures are due to lightning, this results in approximately 3,400 CI annually due to lightning-related outages assigned to cause code UM.

Summing the lightning related outage estimates associated with cause codes OE and UM results in 4,476 CI each year.

If we assume that 50% of all lightning-related CI on the underground distribution system can be prevented through this proposed lightning arrester retrofit project, and that 10% of our feeders are retrofitted each year, then the annual level of CI reduction starting in 2007 is:

Annual CI Reduction = (4,476) * (0.5) * (0.10) = 224 CI
No projects identified for 2007

no specific projects identified in this section

224 224

Infrared Inspections - Overhead

The premise of this section is that infrared inspections of the primary overhead system can identify potential overhead malfunctions in the categories of primary wire, disconnect switches, lightning arresters, jumpers, and connectors.

2004	CI	Multiplier	CI Saved
Primary	8694	0.3	2608
Disc Sw	3396	0.75	2547
Lightning Arr.	2485	0.5	1243
Jumper	469	0.75	352
Connectors	1597	0.75	1198
2004 Total			7947

2005	CI	Multiplier	CI Saved
Primary	9929	0.3	2979
Disc Sw	1656	0.75	1242