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Kentucky Power Company 2013 Distribution Vegetation Management Plan

Overview

On September 30, 2011 Kentucky Power filed its 2012 Distribution Vegetation Management Plan with the Public Service Commission. In the 2012 plan, the Company projected undertaking distribution vegetation management work to maintain 2,355 miles of distribution lines at an estimated O&M cost of \$17.2M. In the 2013 Plan which is attached as **EXHIBIT 1** to this Plan, the Company projects to maintain 2,155 miles of distribution lines at an estimated \$17.2 million.

In a comparison of Kentucky Power's 2011, 2012, and 2013 Distribution Vegetation Management Plans, Kentucky Power projected that it would undertake the following work at the stated cost in each of the three districts in its service territory:

District	Distr	ned Mil ibution Mainta	Line	to l (Incl	nned Ac be Spray ided in Mainta	yed Miles		egetation t ures	
Year→	2011	2012	2013	2011	2012	2013	2011	2012	2013
Hazard	1,022	1,150	796	1,062	1,100	1,620	6,012,155	5,940,089	5,866,498
Pikeville	833	877	942	619	800	1,087	7,237,098	7,299,907	7,264,282
Ashland	440	328	417	325	540	440	3,950,747	3,960,004	4,107,185
Totals	2,295	2,355	2,155	2,006	2,440	3,147	17,200000	17,200,000	17,237,965

Under the Unanimous Settlement Agreement, Kentucky Power agreed to maintain the test-year level of Distribution Vegetation Management O&M expenditures. In addition, under the Unanimous Settlement Agreement, Kentucky Power is to receive and is required to spend an additional \$10 million annually for Distribution Vegetation Management. Since the Unanimous Settlement Agreement was approved, Kentucky Power's annual Distribution Vegetation Management O&M expenditures are expected to be \$17.2 million, as proposed in the table above.

A circuit-by-circuit description of the proposed Distribution Vegetation management work plan for 2013, along with the associated O&M expenditures, is provided as <u>EXHIBIT 2</u> to this Plan. <u>EXHIBIT 3</u> to the Plan sets out by District the projected spraying expenditures during 2013. Finally, <u>EXHIBIT 4</u> to the Plan provides on a district-by-district basis the projected total O&M expenditures during 2013.

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As set out in more detail on **EXHIBITS 2-4** of this Plan, Kentucky Power projects that during 2013:

- Approximately 2,155 miles of distribution line will be maintained by manual trimming, mechanical trimming, and herbicide treatment.
- Herbicide will be applied to 1,037 miles covering approximately 3,147 acres with an O&M budget of over \$1.39 million.
- An estimated \$17.2 million will be spent on O&M for Distribution Vegetation Management, with \$16.4 million expected to be spent on planned maintenance, and \$0.85 million to be spent on unscheduled/reactive maintenance, as required.
- In addition to expenses for current forestry staff, re-clearing, and ground spraying of herbicides, additional activities of the plan include:
 - reactive maintenance
 - contract foresters
 - stump grinding programs
 - tree replacement programs
 - a contractor safety, productivity and quality incentive program

Kentucky Power estimates it will take 7 years to perform a complete re-clearing cycle of its distribution system (at the end of 2012 Kentucky Power will have completed 2 and a half years of the 7 year program) and establish a 4-year cycle for its ongoing program. A complete inventory of all trees along distribution Rights-of-Way will not be made at this time. However, the Company is maintaining an inventory of "cycle-buster" trees as the program is moved to a 4-year cycle. (A cycle buster tree is one that has to be revisited before the circuit is due for its next cycle trim.)

Kentucky Power will use reasonable and prudent efforts to adhere to and carry out this Work Plan. Unforeseen circumstances may cause some deviations from the plan. These include major storms or the newly discovered need to do vegetation management on a distribution circuit not in the plan, but which is experiencing reliability problems. The company will inform the Commission of any such material deviation from its Plan.

EXHIBIT 1

2013 Kentucky Power Distribution Vegetation Management Plan

The 2013 Vegetation Management Plan will continue to focus on Full-Circuit Reclearing. Full-Circuit Re-clearing is an integral part of Kentucky Power Company's efforts to transition from a reactive-based maintenance program to a cycle-based maintenance approach that we began in July of 2010. Re-clearing work will be prioritized and scheduled based on past tree-related reliability performance, field inspection of the right-of-way conditions, and the number of customers impacted. Approximately \$850,457 will be budgeted to address reactive reliability issues that develop throughout the year. This Unscheduled/Reactive funding represents about five percent of the total Vegetation Management O&M Budget.

Kentucky Power Company's service territory covers one of the most heavily forested areas of the country. The spray program is a vital component of Kentucky Power Company's Vegetation Management Plan. ULV (Ultra Low Volume), high-volume foliar, basal, cut-surface, and aerial application techniques will be utilized depending on the brush conditions. The goal is to treat 3,147 acres of brush in 2013.

The 2013 Vegetation Management Plan also includes \$2,550,000 of forestry capital. This funding will be utilized to remove trees larger than 18 inches in diameter, widen rights-of-way, and for TGR (Tree Growth Regulator) application.

The 2013 Kentucky Power Distribution Management Plan projection for the three districts in its service territory is:

2013 KENTUCKY POWER DISTRIBUTION VEGETATION MANAGEMENT PLAN

AREA	PLANNED MILES	PLANNED SPRAY ACRES	UNSCHEDULED REACTIVE O&M FUNDING	SCHEDULED O&M FUNDING	TOTAL O&M FUNDING	FORESTRY CAPITAL FUNDING
HAZARD	796	1,620	\$243,257	\$ 5,623,241	\$ 5,866,498	\$ 940,793
PIKEVILLE	942	1,087	\$239,348	\$ 7,024,934	\$ 7,264,282	\$ 904,030
ASHLAND	417	440	\$367,852	\$ 3,739,333	\$ 4,107,185	\$ 705,177
TOTALS	2,155	3,147	\$850,457	\$16,387,508	\$17,237,965	\$2,550,000

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RECLE	ARING PLAN						nakou sa			
ISTRICT	STATION NAME	CIRCUIT NAME	CIRCUIT NUMBER	LINE MILES	MILES PLANNED	M&O	Forestry Capital associated with Reclearing	PROJECTED O&M COST per MILE	TOTAL COST	COMMENTS
PKV	Lovely	Wolf Creek	3202202	58.7	58.7	\$1,174,000	\$211,320	\$20,000	\$1,385,320	Full circuit reclear
PKV	Lovely	Mt. Sterling	3202203	12.6	12.6	\$113,400	\$20,412	\$9,000	\$133,812	Full circuit reclear
PKV	Middle Burning Crk.	Naugatuck	2153502	1.3	1.3	\$10,400	\$1,872	\$8,000	\$12,272	Full circuit reclear (KY Power Side)
PKV	Sprigg	Sprigg	2150103	8,1	8.1	\$145,800	\$26,244	\$18,000	\$172,044	Full circuit reclear (KY Power Side)
PKV	Lovely	Lovely	3202201	41.0	8.0	\$76,000	\$13,680	\$9,500	\$89,680	Finish Full Circuit Reclear-started in 2012
PKV	Betsy Layne	Mud Creek	3400301	77.0	50.0	\$800,000	\$144,000	\$16,000	\$944,000	Finish Full Circuit Reclear-started in 2012
PKV	Beaver Creek	Ligon	3403201	80.0	70.0	\$1,050,000	\$189,000	\$15,000	\$1,239,000	Finish Full Circuit Reclear-started in 2012
PKV	South Pikeville	Island Creek	3410502	41.0	41.0	\$615,000	\$110,700	\$15,000		Finish Full Circuit Reclear-started in 2012
PKV	Weeksbury	Distribution	3412901	30.0	15.0	\$270,000	\$48,600	\$18,000	\$318,600	Finish Full Circuit Reclear-started in 2012
PKV	Burton	Ligon	3400601	21.0	15.0	\$270,000	\$48,600	\$18,000	\$318,600	Finish Full Circuit Reclear-started in 2012
PKV	Burton	Wheelwright	3400602	21.0	12.0	\$216,000	\$38,880	\$18,000		Finish Full Circuit Reclear-started in 2012
PKV	McKinney	Gibson	3402202	44.0	44.0	\$682,000	\$122,760	\$15,500	\$804,760	Full circuit reclear
PKV	Salisbury	Martin	3408103	56.0	50.0	\$700,000	\$126,000	\$14,000	\$826,000	Full circuit reclear
PKV	New Camp	Southside	3417601	10	10	\$140,000	\$25,200	\$14,000	\$165,200	Full circuit reclear
PKV	South Pikeville	Hospital	3410503	7	7	\$63,000	\$11,340	\$9,000	\$74,340	Full circuit reclear
ASH	47th Street	49th Street	3008001	26,0	18.0	\$243,000	\$30,375	\$13,500	\$273,375	Finish Full Circuit Reclear-started in 2012
ASH	10th Street	West Central	3002107	17.0	17.0	\$221,000	\$27,625	\$13,000	\$248,625	Full circuit reclear
ASH	Russell	Kenwood	3010601	21.0	21.0	\$315,000	\$39,375	\$15,000	\$354,375	Full circuit reclear
ASH	Belhaven	Argillite	3116703	27.5	10.0	\$130,000	\$16,250	\$13,000	\$146,250	Partial circuit reclear
ASH	Wurtland	Greenup	3110902	51.0	51.0	\$714,000	\$89,250	\$14,000	\$803,250	Full circuit reclear
ASH	Cannonsburg	Route 3	3008702	101.0	10.0	\$100,000	\$12,500	\$10,000	\$112,500	Finish Full Circuit Reclear-started in 2012
ASH	Hayward	Haldeman	3000801	118.0	60.0	\$720,000	\$90,000	\$12,000	\$810,000	Full circuit reclear - To be completed in 2014
ASH	Big Sandy	Failsburg South	3000201	158.0	60.0	\$660,000	\$82,500	\$11,000	\$742,500	Finish Full Circuit Reclear-started in 2012
ASH	Bussyville	Walbridge	3007906	112.0	10.0	\$130,000	\$16,250	\$13,000	\$146,250	Full circuit reclear - To be completed in 2014
HAZ	Leslie	Hais Fork	3303903	75.4	45.4	\$454,000	\$81,720	\$10,000	\$535,720	Finish Full Circuit Reclear-started in 2012
HAZ	Leslie	Wooton	3303902	158.4	40.0	\$400,000	\$72,000	\$10,000	\$472,000	Begin Full Circuit Reclear
HAZ	Beckham	Carr Creek	3308402	116.1	60.0	\$570,000	\$102,600	\$9,500		Finish Full Circuit Reclear-started in 2012
HAZ	Jeff	Viper	3309001	47.4	47.4	\$450,300	\$81,054	\$9,500	\$531,354	Full Circuit Reclear
HAZ	Jeff	Jeff	3309002	1.2	1.2	\$11,400	\$2,052	\$9,500	\$13,452	Full Circuit Reclear
HAZ	Daisy	Leatherwood	3301701	81.3	81.3	\$813,000	\$146,340	\$10,000	\$959,340	Full Circuit Reclear
HAZ	Bonnyman	Hazard	3308502	47.7	47.7	\$477,000	\$85,860	\$10,000	\$562,860	Full Circuit Reclear
HAZ	Jenkins	Jenkins	3312902	24.8	24.8	\$248,000	\$29,760	\$10,000	\$277,760	Full Circuit Reclear
HAZ	Burdine	Jenkins	3409503	8.4	8.4	\$100,800	\$12,096	\$12,000		Full Circuit Reclear
HAZ	Beefhide	Dunham	3451202	9.9	9.9	\$89,100	\$10,692	\$9,000	\$99,792	Full Circuit Reclear
HAZ	Whitesburg	Hospital	3309102	8.0	8.0	\$96,000	\$11,520	\$12,000	\$107,520	Full Circuit Reclear
HAZ	Bulan	Ajax Dwarf	3307302	43.9	43.9	\$526,800	\$63,216	\$12,000		Full Circuit Reclear
HAZ	Bulan	Lotts Creek	3307303	2.0	2.0	\$24,000	\$2,880	\$12,000	\$26,880	Full Circuit Reclear
HAZ	Shamrock	Shamrock	3311701	38.3	38.3	\$421,300	\$50,556	\$11,000		Full Circuit Reclear
			<u> </u>		1	\$0	\$0	\$12,000	\$0	
	RECLEARING TOTALS	sorran concentration (6) (6)	Totals	1803	1118	\$14,240,300	\$2,295,079		\$16,535,379	

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KENTUCKY POWER FORESTRY PLAN Terminology

Feeder Breaker Zone

Synonymous with Station Zone. Segment of line extending from the circuit station breaker to the first operating device. This zone includes unfused taps, but does not include fused taps.

Full Circuit Reclear

Entire circuit from the station breaker to the end of the circuit.

Recloser Zone

Line segment extending from a specific recloser to the next operating device. This zone includes unfused taps, but does not include fused taps.

Partial Reclear

A portion of the circuit is planned for reclearing.

BID JOB

Planned reclearing work released as an open, lump-sum bid for competing contractors.

Finish Full Circuit Reclear

Reclearing scheduled to complete Full Circuit Reclear that began in the previous year.

2nd Recloser Zone

Line segment beginning at the second operating device beyond the station circuit breaker extending to the next operating device. This zone includes unfused taps, but does not include fused taps.

Quality-of-Service Work

Tree trimming or removal work scheduled for a line segment to address reliability issues. This work does not conform to reclearing specifications (e.g.-Hotspotting).

DISTRIBUTION VEGETATION MANAGEMENT SPRAY PLAN KYPCO 2013

	SPRAY		
DISTRICT	MILES	ACRES	O&M BUDGET
PKV	539	1087	\$451,000
HAZ	338	1620	\$686,208
ASH	160	440	\$256,000
Totals	1037	3147	\$1,393,208

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Kentuc	ky Power Company			
	2013			
Distribution Vegetation Mar	nagement O&M Fore	stry Plan-Summa	ary	
·				
<u>ACTIVITY</u>	<u>Total O&M</u>	<u>Pikeville</u>	<u>Hazard</u>	<u>Ashland</u>
RECLEARING	\$14,240,300	\$6,325,600	\$4,681,700	\$3,233,000
TOTAL SPRAY	\$1,393,208	\$451,000	\$686,208	\$256,000
AERIAL SAW	\$0	\$0	\$0	\$0
Unscheduled/Reactive Maintenance	\$850,457	\$239,348	\$243,257	\$367,852
CONTRACT FORESTERS	\$270,000	\$90,000	\$90,000	\$90,000
STUMP GRINDING PROGRAM	\$3,000	\$0	\$2,000	\$1,000
TREE REPLACEMENT PROGRAM	\$6,000	\$0	\$5,000	\$1,000
KPI INCENTIVE PROGRAM-Asplundh Field Personnel	\$260,000	\$86,667	\$86,666	\$86,667
INTERNAL-Existing KY Forestry Staff	\$215,000	\$71,667	\$71,667	\$71,666
TOTAL	\$17,237,965	\$7,264,282	\$5,866,498	\$4,107,185
September 30, 2009 O&M Test Year Level	\$7,237,965			
Settlement O&M Incremental Level	\$10,000,000			
Total Annual O&M Distribution Vegetation	\$17,237,965			
Forestry Capital	\$2,550,000			
Total KYPCO Forestry Budget				
Total KTPCO Forestry Budget	φισ,/ο/,σοσ			
	Reclearing, Aerial			
	Saw and Spray			
	Miles			
Pikeville	942			
Hazard	796			
Ashland	417			
9/27/2012 Total	2,155			

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