STITES & HARBISON PLLC

ATTORNEYS

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SEP 2 9 2015

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PUBLIC SERVICE COMMISSION

> Mark R. Overstreet (502) 209-1219 (502) 223-4387 FAX moverstreet@stites.com

September 29, 2015

HAND DELIVERED

Jeff R. Derouen Executive Director Public Service Commission 211 Sower Boulevard P.O. Box 615 Frankfort, KY 40602-0615

RE: <u>Case No. 2014-00396</u> (Post-Case Referenced Correspondence File)

Dear Mr. Derouen:

Enclosed please find and accept for filing the original and ten copies of Kentucky Power Company's 2016 Enhanced Distribution Vegetation Management Plan. The plan is being filed in compliance with paragraph 8(c) of the April 30, 2015 Settlement Agreement approved as modified by the Commission's June 22, 2015 Order in Case No. 2014-00396.

The plan is being served on all parties to Case No. 2014-00396 in accordance with paragraph 8(g) of the Settlement Agreement.

truly yours, Mark R. Overstreet

MRO

cc: Counsel of Record

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SEP 29 2015

2016 Enhanced Distribution Vegetation Management Plan_{PUBLIC SERVICE}

COMMISSION

Overview

Effective July 1, 2015, and in accordance with the Commission's June 22, 2015 Order in Case No. 2014-00396, Kentucky Power modified its Distribution Vegetation Management Plan. As modified, the plan provides for continuation of the Company's initial right-of-way clearing efforts ("Task 1") at an annual O&M expense of \$17,237,965. Kentucky Power projects it will have cleared the approximately 8,000 miles of its distribution right of way by December 31, 2018. Simultaneously with the initial clearance of the Company's distribution right-of-way, Kentucky Power began July 1, 2015 the interim re-clearing work on the post-July 1, 2010 initially-cleared distribution right of way ("Task 2"). Task 2, which is to be accomplished at an annual cost of \$10,423,095, is expected to be completed mid-2019, and will place Kentucky Power on a five-year clearance cycle ("Task 3").

Kentucky Power Company

The right-of-way mileage clearance and expenditure targets for each task are set forth below in Table 1 and Table 2 respectively:

Table 1: Case N Enhanced V				-	r	
Vegetation Plan	Vegetation Plan Year					
Work Assigned	2015	2016	2017	2018	2019	
Task 1	987	986	986	986		
Task 2	371	771	788	812	370	
Task 3					1613	
Veg Program Miles	1358	1757	1774	1798	1983	

	Enhance	d Vegetation	Manageme	nt Program			
Vegetation Plan Year						Total Task 1	
Work Assigned	2015	2016	2017	2018	2019	and Task 2	
Task 1	\$ 17,237,965	\$ 17,237,965	\$ 17,237,965	\$ 17,237,965		\$ 68,951,860	
Task 2	\$ 5,211,548	\$ 10,423,095	\$ 10,423,095	\$ 10,423,095	\$ 5,211,547	\$ 41,692,380	
Task 3					\$ 15,880,652		
/eg Program Dollars	\$ 22,449,513	\$ 27,661,060	\$ 27,661,060	\$ 27,661,060	\$ 21,092,199	\$ 110,644,240	

2015 Vegetation Management Activities Through August 31, 2015

As of the end of August 2015, the Company had completed 960 miles of the total of 987 miles of Task 1 clearance work targeted for completion in 2015. Stated otherwise, during the first two-thirds of 2015 Kentucky Power cleared approximately 97% of the total mileage slated for initial clearance during the entirety of 2015.

Task 1 activity in the first eight months of 2015 was completed at an O&M cost of \$12,364,174, or 72% of the 2015 annual budget (\$17,237,965) for Task 1 work. The Company projects that approximately 1,300 miles (or approximately 132%) of the 987 miles in the 2015 Task 1 will be completed by December 31, 2015.

Three factors contributed to the Company's ability to increase its Task 1 activity to the levels achieved in 2015. Most significantly, more favorable weather conditions for vegetation management than in past years allowed Kentucky Power to increase its vegetation management activity. Second, the vegetation growth in certain rights-of-way cleared in 2015 had been reduced by the prior ground spray. In addition, the 2015 urban-like circuits had considerably less vegetation density than most urban-like circuits. Generally, urban-like circuits have additional cost associated, such as additional clean-up and flagging.

During the first two months of Task 2 activity (July and August 2015), Kentucky Power completed approximately 94% of the 164 miles slated for Task 2 interim re-clearance during those two months. Task 2 expenditures during the July-August 2015 period totaled 23% (\$1,161,544) of the budgeted 2015 expenditures (six months only) of \$5,211,548.

Kentucky Power estimates it will meet its 2015 Task 2 target of 371 miles by December 31, 2015.

Total Vegetation Management Program Activity (July 1, 2010 to December 31, 2015)

Kentucky Power projects that by year-end 2015 Task 1 Vegetation Management Program O&M expenditures will total \$95.5 million over the life of the program. Capital expenditures over a like period are projected to reach over \$16 million.

Kentucky Power projects that from July 1, 2010 through December 31, 2015 the Distribution Vegetation Management Program will have:

- removed 1,310,705 trees;
- trimmed approximately 396,000 trees;
- cleared, 9,865 acres of brush;

• sprayed 12,000 acres to control vegetation;

• cleared (Task 1) approximately 5,520 miles of circuits or 68% of the 8,065 total miles of primary line circuits (*See* Diagram 2);

• reduced Customer Minutes Interrupted (CMI) for Tree Inside Right-of-Way by more than 46% (See Diagram 1).



Note: The 2015 Vegetation Management Plan (filed September 2014) contained a diagram showing customer minutes interrupted as a result of trees inside the right of way from 2009 through August 2014. In preparing this year's diagram illustrating the change in customer minutes interrupted as a result of trees inside the right of way, the Company discovered that the diagram submitted with the 2015 Vegetation Management Plan erroneously excluded outages resulting from vines within the right-of-way for 2014. Vine-related outages previously had been included in the Customer Minutes Interrupted as a result of trees within the right-of-way totals reported in the diagram. 2014 total customer minutes interrupted in Diagram 1 of the 2015 Vegetation Management Plan thus should have been 9,832,096 customer minutes (9,057,002 (Tree Inside Right-of-Way) + 775,094 (Vines)).

The diagram above corrects the previously-reported 2014 data to include customer minutes interrupted due to vines within the right-of-way for the 2014 reporting period.



By district, Kentucky Power projects it will have completed the following percentage of Task 1 activity by December 31, 2015:

- Ashland (64%);
- Hazard (80%); and
- Pikeville (61%).

In 2015, the Company began shifting local crews from the Hazard District to the Pikeville District. In addition, an Open Bid for Task 1 work on a 100-mile circuit in the Ashland District was let. Asplundh Tree Expert, Townsend Tree Service, Nelson Tree Service, and Wright Tree Service were offered the opportunity to submit bids. Asplundh Tree Expert submitted the least cost bid and it was selected.

An emerging issue for Kentucky Power is the opposition in more urban areas to its vegetation management efforts. Further limiting the Company's ability to perform necessary vegetation management work and establish a five-year cycle in urban areas is that its clearing efforts are often restricted to the boundaries of its franchise right-of-way. "Cycle-buster" trees planted outside the right-of-way can only be trimmed to the right-of-way boundary requiring more frequent trimming to keep the trees away from the Company's energized facilities.

These issues are addressed on a case-by-case basis with the property owners. Kentucky Power also is working with governmental authorities to educate property owners concerning the importance of its vegetation management efforts.

Kentucky Power Company's 2016 Enhanced Distribution Vegetation Management Plan

Remaining Task 1 clearance work will be scheduled based on past tree-related reliability performance, field inspection of the right-of-way conditions, and the number of customers impacted. Task 2 interim clearance work will be performed on those circuits cleared in late 2010 and early 2011. The Company will continue to budget Unscheduled/Reactive funding in the amount of \$459,151 to address reliability issues that develop during the year. This level of funding represents 1.7% of the total Enhanced Vegetation Management O&M budget.

Kentucky Power's service territory covers one of the most heavily forested areas in the country. The Company's spray program is a vital component of the Enhanced Distribution 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 a combined total of 2,500 acres of brush in 2016 as part of Task 1 and Task 2 work.

In 2016, the Company projects \$1,522,325 in forestry capital expenditures for Task 1 and Task 2. This funding will be utilized to remove trees larger than 18 inches in diameter, widen rights-of-way, and for Tree Growth Regulator ("TGR") application.

The 2016 Kentucky Power Enhanced Distribution Vegetation Management Plan projected expenditures for the three districts in its service territory for Task 1 (Table 3) and Task 2 (Table 4) are:

Table 3: 2016 Kentucky Power Distribution Vegetation Management Plan for Task 1 - Initial Clear						
Area	Planned Miles Initial Clear Task 1	Unscheduled Reactive O&M Funding	Scheduled O&M Funding	Total O&M Funding	Forestry Capital Funding	
Pikeville	421	\$173,913	\$8,040,048	\$8,213,961	\$589,850	
Ashland	344	\$35,000	\$5,502,721	\$5,537,721	\$399,728	
Hazard	221	\$250,238	\$3,236,045	\$3,486,283	\$205,530	
Totals	986	\$459,151	\$16,778,814	\$17,237,965	\$1,195,108	

	Table 4: 2016 Kentucky Power Distribution Vegetation Management Plan for Task 2 - Interim Re-clear					
Area	Planned Miles Interim Re-clear Task 2	Scheduled O&M Funding	Forestry Capital Funding			
Pikeville	306	\$4,533,577	\$145,174			
Ashland	210	\$2,609,296	\$80,666			
Hazard	255	\$3,280,222	\$101,377			
Totals	771	\$10,423,095	\$327,217			

Exhibit Description

The following exhibits are attached to and incorporated in this report:

Exhibit 1 – A circuit-level listing of scheduled 2016 Task 1 and Task 2 work. The accompanying projected O&M and associated forestry capital expenditures for each circuit worked as part of the 2016 Distribution Vegetation Management Plan is also provided. Exhibit 1 also includes a Vegetation Management Plan glossary.

Exhibit 2 – The 2016 planned Spray Plan by district.

Exhibit 3 – Recap by district and type expenditure the Task 1 and Task 2 expenditures planned for 2016.

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TRICI	STATION NAME	CIRCUIT NAME	CIRCUIT	CIRCUI T LINE MILES	MILES	PROJECTED O&M COST per MILE	O&M	Forestry Capital associated with Task 1	COMMENTS
PKV	Dewey	Inez	3411401	171.0	171.0	\$17,515	\$2,994,377	\$239,550	Full Circuit Reclear
PKV	Johns Creek	Raccoon	3411802	84.0	65.0	\$17,515	\$1,138,475	\$91,078	finish Full Circuit Reclear
PKV	Henry Clay	Regina	3401702	110.0	35.0	\$17,515	\$613,025	\$49,042	Begin Full Circuit reclear. Finish in 2017
РКV	Betsy Layne	Tram	3400302	35.0	35.0	\$17,515	\$613,025	\$49,042	Full Circuit Reclear
PKV	Henry Clay	Ashcamp	3401703	43.0	43.0	\$17,515	\$753,145	\$60,252	Full Circuit Reclear
PKV	South Pikeville	Pikeville	3410501	10.0	10.0	\$17,515	\$175,150	\$14,012	Full Circuit Reclear
PKV	Topmost	Dema	3407101	37.0	37.0	\$17,515	\$648,055	\$51,844	Full Circuit Reclear
PKV	Topmost	Kite	3407103	25.0	25.0	\$17,515	\$437,875	\$35,030	Full Circuit Reclear
ASH	Ashland	25th St	3000101	1.4	1.4	\$14,525	\$20,335	\$1,627	Full Circuit Reclear
ASH	Ashland	29th St	3000102	6.8	6.8	\$14,525	\$98,770	\$7,902	Full Circuit Reclear
ASH	Ashland	14th St	3000103	1.3	1.3	\$14,525	\$18,883	\$1,511	Full Circuit Reclear
ASH	Ashland	3rd St	3000104	0.2	0.2	\$14,525	\$2,905	\$232	Full Circuit Reclear
ASH	Ashland	1st St	3000105	1.7	1.7	\$14,525	\$24,693	\$1,975	Full Circuit Reclear
ASH	Princess	Meade	3117601	44.9	22.0	\$14,525	\$319,550	\$25,564	complete Full Circuit Reclear
ASH	Princess	Rt 180	3117602	23.1	12.2	\$14,525	\$177,205	\$14,176	Full Circuit Reclear
ASH	Howard Collins	Summit	3001204	25.4	25.4	\$14,525	\$368,935	\$29,515	Full Circuit Reclear
ASH	Grayson	Dixie Park	3116102	32.9	32.9	\$14,525	\$477,873	\$38,230	begin Full Circuit Reclear
ASH	Grayson	Lansdowne	3116101	35.3	35.3	\$14,525	\$512,733	\$41,019	Full Circuit Reclear
ASH	Hitchens	Grayson	3001003	48.0	2.8	\$14,525	\$40,670	\$3,254	begin Full Circuit Reclear
ASH	Belhaven	Argillite	3116703	27.6	27.6	\$14,525	\$400,890	\$32,071	Full Circuit Reclear
ASH	Belhaven	Indian Run	3116702	18.9	18.9	\$14,525	\$274,523	\$21,962	Full Circuit Reclear
ASH	Belhaven	Diedrich	3116701	8.9	8.9	\$14,525	\$129,273	\$10,342	Full Circuit Reclear
ASH	Russell	Bear Run	3010602	12.5	12.5	\$14,525	\$181,563	\$14,525	Full Circuit Reclear
ASH	Russell	Ashland Oil	3010603	1.1	1.1	\$14,525	\$15,978	\$1,278	Full Circuit Reclear
ASH	Bellefonte	Flatwoods	3000302	3.2	2.0	\$14,525	\$29,050	\$2,324	Full Circuit Reclear
ASH	Busseyville	Mattie	3007905	92.5	60.0	\$14,525	\$871,500	\$69,720	begin Full Circuit Reclear
ASH	South Neal	Whites Creek	2206403	38.8	38.8	\$14,525	\$563,570	\$45,086	Full Circuit Reclear
ASH	Hoods Creek	Rural	3001102	47.2	32.2	\$14,525	\$467,705	\$37,416	Full Circuit Reclear
HAZ	Bluegrass	Walkertown	3300601	28.5	28.5	\$11,625	\$331,313	\$26,505	Full Circuit Reclear
HAZ	Chavies	Chavies	3301101	68.1	20.0	\$11,625	\$232,500	\$18,600	begin Full Circuit Reclear
HAZ	Vicco	Jeff	3309302	83.1	32.0	\$11,625	\$372,000	\$29,760	begin Full Circuit Reclear
HAZ	Slemp	Defeated Creek	3309901	13.4	13.4	\$11,625	\$155,775	\$12,462	Full Circuit Reclear
HAZ	Slemp	Leatherwood	3309902	71.2	24.0	\$11,625	\$279,000	\$22,320	Full Circuit Reclear
HAZ	Haddix	Quicksand	3310501	201.1	10.0	\$11,625	\$116,250	\$9,300	Full Circuit Reclear
HAZ	Haddix	Canoe	3310502	122.6	22.0	\$11,625	\$255,750	\$20,460	begin Full Circuit Reclear
HAZ	Fleming	Neon	3401301	20.5	20.5	\$11,625	\$238,313	\$19,065	begin Full Circuit Reclear-2nd Zone
HAZ	Fleming	McRoberts	3401302	30.3	30.3	\$11,625	\$352,238	\$28,179	begin Full Circuit Reclear-2nd Zone
HAZ	Softshell	Vest	3420001	56.7	20.3	\$11,625	\$235,988	\$18,879	begin Full Circuit Reclear-Hwy 476
		nitial Clear Plan TOTAL		1.1.1.2.1.1.1	986		\$14,938,852	\$1,195,108	

KPSC Case No. 2014-00396 Kentucky Power Company September 2015, Filing Exhibit 1, Page 1 of 3

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DISTRICT	STATION NAME	CIRCUIT NAME	CIRCUIT	CIRCUIT LINE MILES	MILES	PROJECTED O&M COST per MILE	O&M	Forestry Capita associated with Task 2
PKV	Allen	Distribution	3400101	38.0	15.0	\$13,555	\$203,325	\$7,116
PKV	Elwood	Dorton	3401001	46.0	46.0	\$13,555	\$623,530	\$21,824
PKV	Elwood	Virgie	3401002	71.0	71.0	\$13,555	\$962,405	\$33,684
PKV	Fishtrap	Distribution	3414901	4.4	4.0	\$13,555	\$54,220	\$1,898
PKV	Barrenshe	Vulcan	3200202	49.0	49.0	\$13,555	\$664,195	\$23,247
PKV	Fords Branch	Shelby	3411901	39.0	39.0	\$13,555	\$528,645	\$18,503
PKV	Fords Branch	Robinson Creek	3411902	56.0	15.0	\$13,555	\$203,325	\$7,116
PKV	Burdine	Levisa	3409502	39.0	15.0	\$13,555	\$203,325	\$7,116
PKV	Kenwood	Hagerhill	3409303	51.0	20.0	\$13,555	\$271,100	\$9,489
PKV	Draffin	Yellowhill	3400702	12.4	12.0	\$13,555	\$162,660	\$5,693
PKV	Lovely	Lovely	3202201	41.0	20.0	\$13,555	\$271,100	\$9,489
ASH	Big Sandy	Fallsburg	3000201	159.9	58.1	\$10,975	\$637,648	\$22,318
ASH	Gray's Branch	Gray's Branch	3000701	68.3	23.0	\$10,975	\$252,425	\$8,835
ASH	Olive Hill	Globe	3103101	150.3	75.0	\$10,975	\$823,125	\$28,809
ASH	Wurtland	Route 503	3110903	45.5	18.0	\$10,975	\$197,550	\$6,914
ASH	47th Street	39th Street	3008002	12.9	12.9	\$10,975	\$141,578	\$4,955
ASH	Bellfonte	Westwood	3000302	23.0	23.0	\$10,975	\$252,425	\$8,835
HAZ	Combs	Combs	3301401	9.0	9.0	\$11,360	\$101,916	\$3,567
HAZ	Combs	Airport Gardens	3301402	42.9	42.9	\$11,360	\$487,344	\$17,057
HAZ	Beckham	Hindman	3308401	101.5	61.5	\$11,360	\$698,640	\$24,452
HAZ	Slemp	Beech Fork	3309903	1.7	1.7	\$11,360	\$19,312	\$676
HAZ	Slemp	Royal Diamond	3309904	2.2	2.2	\$11,360	\$24,992	\$875
HAZ	Stinnett	Redbird	3311101	120.7	85.0	\$11,360	\$965,600	\$33,796
HAZ	Stinnett	Beech Fork	3311102	9.5	9.5	\$11,360	\$107,920	\$3,777
HAZ	Reedy	Deane	3311401	43.2	43.2	\$11,360	\$490,752	\$17,176
		Interim Re-clear Plan	TOTALS		771		\$9,349,056	\$327,217

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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.

<u>BID JOB</u>

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).

Cycle Buster Tree

A tree that has to be revisited before the circuit is due for its next cycle trim.

DISTRIBUTION VEGETATION MANAGEMENT SPRAY PLAN - TASKS 1 & 2 KYPCO 2016 DISTRICT ACRES O&M BUDGET

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Totals	2500	\$1,200,000
ASH	500	\$240,000
HAZ	1000	\$480,000
PKV	1000	\$480,000

Kentucky Powe 2016 Distribution Enhanced Vegetation Manag		prestry Plan-S	ummary	
ACTIVITY	Total O&M	Pikeville	Hazard	Ashland
Initial Clear -Task 1	\$14,938,852	\$7,373,127	\$2,569,125	\$4,996,600
Spray - Task 1	\$804,000	\$321,600	\$321,600	\$160,800
Contract Foresters - Task 1	\$259,160	\$86,387	\$86,386	\$86,387
KPI Incentive Program - Contractor Field Personnel - Task 1	\$520,800	\$173,600	\$173,600	\$173,600
INTERNAL-Existing KY Forestry Staff - Task 1	\$256,002	\$85,334	\$85,334	\$85,334
Unscheduled/Reactive Maintenance - Task 1	\$459,151	\$173,913	\$250,238	\$35,000
Task 1 O&M	\$17,237,965	\$8,213,961	\$3,486,283	\$5,537,721
Interim Re-clear - Task 2	\$9,349,056	\$4,147,830	\$2,896,476	\$2,304,750
Spray - Task 2	\$396,000	\$158,400	\$158,400	\$79,200
Contract Foresters - Task 2	\$158,839	\$52,947	\$52,946	\$52,946
KPI INCENTIVE PROGRAM - Contractor Field Personnel - Task 2	\$319,200	\$106,400	\$106,400	\$106,400
INTERNAL- Existing KY Forestry Staff - Task 2	\$200,000	\$68,000	\$66,000	\$66,000
Task 2 O&M	\$10,423,095	\$4,533,577	\$3,280,222	\$2,609,296
Total O&M Task1 & Task 2	\$27,661,060	\$12,747,538	\$6,766,505	\$8,147,017
Forestry Capital Task 1 & Task 2	\$1,522,325	\$735,024	\$306,907	\$480,394
Total KYPCO Forestry Budget	\$29,183,385			

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2016 Kentucky Power Plan					
Districts	Initial Clear Miles (Task 1)	Interim Re-clear Miles (Task 2)			
Pikeville	421	306			
Ashland	344	210			
Hazard	221	255			
Totals	986	771			

Certificate of Service

I certify that a copy of Kentucky Power Company's 2016 Distribution Vegetation Management Plan was mailed to the following counsel of record in accordance with paragraph 8(g) of April 30, 2015 Settlement Agreement in Case No. 2014-00396:

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on this 2 day of September, 2015

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