Kentucky Power Company 2019 Distribution Vegetation Management Plan – Five year Cycle

Overview

Kentucky Power modified its distribution Vegetation Management Plan effective January 18, 2018 in accordance with the Commission's Order in Case No. 2017-00179. Kentucky Power's 2018 distribution vegetation management O&M expenditures under the modified plan will be reduced from \$27.661 million in 2017 to \$21.639 million in 2018.

Task 1 work was completed by March 31, 2018, with the exception of a single circuit where the work was coordinated with a pending scheduled outage of the circuit. Kentucky Power subsequently performed the Task 1 vegetation management work on the circuit with the exception of two spans behind a residence at 5788 Hurricane Road, Pikeville, Kentucky. The Task 1 work at this location was delayed to coordinate the required outage¹ with the maintenance schedule for a nearby gas compressor station. The work is scheduled to be completed the week of October 22, 2018.

Kentucky Power will transition to a five-year cycle (Task 3 work) beginning January 1, 2019. Task 3 work is designed to maintain the average growth within the distribution right-of-way at five years or less.

2018 Vegetation Management Activities through August 31, 2018

Task 1 2018 O&M expenditures through the completion of Task 1 work were \$4,520,632, or 186.8% of the 2018 annual budget (\$2,419,648) for Task 1 work. The additional Task 1 expenditures resulted from the performance of an additional 72 miles of Task 1 work in 2018. The additional Task 1 miles were 2017 Task 1 miles that were not completed last year. In addition, the Company's Task 1 spray expense was \$1,151,957 versus a budget amount of \$780,100. The additional spray expense reflects the increased Task 1 work.

The Company completed 717 miles or 47.9% of the projected 2018 Task 2 work as of August 31, 2018. Kentucky Power redeployed resources to Task 2 work following the completion of the Task 1 work. Kentucky Power projects completing approximately 1,350 miles to 1,450 (the targeted amount) of Task 2 work in 2018. Task 2 O&M expenditures through the first eight months were \$8,960,593 (46.6%) of the 2018 Task 2 budget of \$19,219,118.

¹ The outage is required for safety reasons. The area is inaccessible by truck and the Task 1 work will be performed principally by climbing the trees.

The 2018 actual miles of distribution right-of-way work completed through August 31, 2018 as compared to the projected year-end totals is shown below in Table 1.² Task 1 and Task 2 targets are displayed for each of the districts. Likewise, the 2018 total and year-to-date Task 1 and Task 2 expenditures for each of the districts are set forth in Table 2.

Table 1: 2018 Circuit Miles By District (Task 1 & 2)									
District	2018 Targeted Task 1 Miles	2018 Task 1 Mileage (Jan - Aug)	2018 Targeted Task 2 Miles	2018 Task 2 Mileage (Jan - Aug)	2018 Task 2 Percent Mileage Complete				
Ashland	72.7	72.7	100%	420.2	173.6	41%			
Hazard	60.7	60.7	100%	545.3	268.5	49%			
Pikeville	82.1	82.1	100%	530.5	274.8	52%			
Total	215.5	215.5	100%	1496	716.9	48%			

Table 2: 2018 Targeted Expenditures Year-to-Date versus Year-End								
District	2018 Targeted Expenditures (Jan -Aug) for Task 1 and 2	2018 Targeted Expenditures Year-End Task 1 and 2	2018 Percent of Targeted Expenditures Year-to- Date vs Year-End					
Ashland	\$3,880,635	\$6,782,430	57%					
Hazard	\$4,525,917	\$6,761,552	67%					
Pikeville	\$5,074,673	\$8,094,784	63%					
Total	\$13,481,225	\$21,638,766	62%					

Note: \$100K was added to Hazard Year-End for Aerial Spray and \$200K was added to Pikeville Year-End Aerial Saw

Kentucky Power anticipates transitioning to performing only Task 3 work beginning January 1, 2019. Any circuits scheduled for Task 2 work in 2018 that are not completed will be re-cleared in 2019 as part of the Task 3 work.

The number of vegetation-related interruptions declined by 26% from 833 (twelve month period ended June 30, 2017) to 617 (twelve month period June 30, 2018). The number of customer minutes interrupted declined 49% from 5,717,191 to 2,933,156 when comparing the same twelve-month periods.

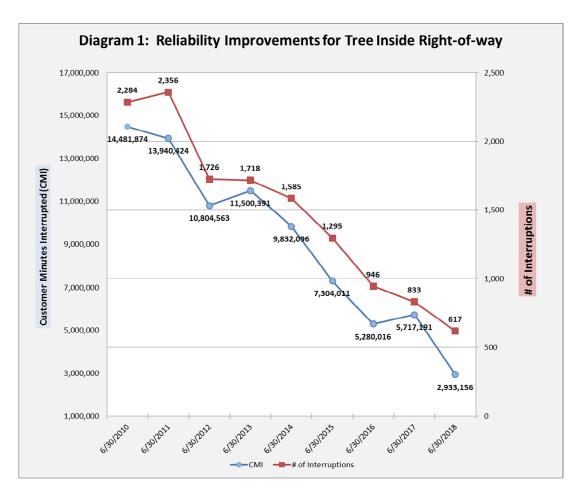
² The Task 1 work completed "rounds" to 100 percent notwithstanding the approximately 150 feet of Task 1 work (out of the 215.5 miles targeted) to be completed the week of October 22, 2018.

Total Vegetation Management Program Activity (July 1, 2010 to August 31, 2018)

Kentucky Power's Vegetation Management Program O&M expenditures totaled approximately \$170 million over the life of the program. Capital expenditures over the same period totaled approximately \$27 million.

From the program's inception on July 1, 2010 through August 31, 2018 the Company's Vegetation Management Program achieved the following results:

- Removed 2,106,950 trees
- Trimmed approximately 632,569 trees
- Cleared 20,317 acres of brush
- Sprayed 20,483 acres to control vegetation
- Reduced Customer Minutes of Interruption (CMI) for trees inside rights-of-way by approximately 79.7% (Diagram 1).
- Reduced number of interruptions for trees inside rights-of-way by approximately 73.0% (Diagram 1).



- Reduced SAIDI for trees inside rights-of-way by approximately 78.9%.
- Reduced SAIFI for trees inside rights-of-way by approximately 80.7%.
- CAIDI for trees inside rights-of-way has increased by approximately 9.5%. This increase is resulted from the increase in vine outages and the outages required to remove the vines from the facilities.
- The Company completed 8,113 miles of initial re-clear (Task 1) work and 2,158 miles of Task 2 work.³ Kentucky Power anticipates completing between 2,791 miles and 2,891 of second pass through (Task 2) or 34.4 to 35.6%, prior to the beginning of five-year cycle on January 1, 2019.

³ Kentucky Power anticipates completing by December 31, 2108 a total of 2,791 miles to 2,891 miles of Task 2 work since 2015.

2019 Vegetation Management Plan - Overview

1. Mileage and Expenditures.

Table 3 below provides the projected mileage by task for 2018 and for the first five-year cycle (calendar years 2019-2023). Table 4 below provides the projected annual O&M expenditures to achieve the targeted miles.

Table 3: Five Year Cycle Miles of Re-clear							
5 Year Cycle	2018	2019	2020	2021	2022	2023	
Year 1		1623					
Year 2			1622				
Year 3				1623			
Year 4					1622		
Year 5						1623	
Task 1 Completion	216						
Task 2 Completion	1496						
Program Miles	1712	1623	1622	1623	1622	1623	
	Task 1 - Initial Re-clear						
	Task 2 - Interim Re-clear						
	Task 3 - 5	Year Cyc	le Trim				

Table 4: Five Year Cycle - Funding Requirements								
	2018	2019	2020	2021	2022	2023		
Yr 1 Miles		\$21,283,946						
Yr 2 Miles			\$21,472,777					
Yr 3 Miles				\$21,688,685				
Yr 4 Miles	\$19,219,118				\$21,881,312			
Yr 5 Miles						\$22,101,559		
Yr 6 Miles								
Yr 7 Miles								
Yr 8 Miles								
Yr 9 Miles	\$2,419,648							
Program Miles	\$21,638,766	\$21,283,946	\$21,472,777	\$21,688,685	\$21,881,312	\$22,101,559		
			•	•	•			
	Task 1 - Initial Re-clear							
		Task 2 - Interi	m Re-Clear	•				
		Task 3 - 5 Year	r Cycle Trim					

2. Average Vegetation Growth.

The Company projects it will continue to re-clear approximately 1,623 circuit miles each year during the 2019-2023 five-year cycle. It will first address those circuits maintained five years previously along with any prior years' scheduled work that was not completed. This means that in 2019, for example, the Company first will target those circuits that were cleared in 2014 (five years previously) plus any Task 2 work scheduled for 2018 that that is not completed by December 31, 2018. Where appropriate, Kentucky Power also will consider tree-related reliability performance, field inspection of the rights-of-way conditions, and the number of customers who would be affected by an outage in scheduling work in any particular year. Any additional mileage available to be cleared in 2019 will focus on mileage last maintained in 2015.

With the establishment beginning January 1, 2019 of a five-year cycle, and commencement of Task 3 work, the Company also will begin calculating and reporting the average system vegetation growth in addition to projected miles to be maintained and projected expenditures. Table 5 below provides this additional reporting for the Company's first five-year cycle (2019-2023).

Table 5: Average Year Tree Growth for Vegetation Program									
	Miles Re-Clear		Miles Re-Clear Total Miles			Five Ye	ear Cycle		
Year	Task 1	Task 2	Task1 and Task 2	Year	Targeted Miles	Variance	Average Years of Growth		
				Unscheduled Task 2 Work		47			
2014	1155	0	1155	2019	1623	-421	4.74		
2015	1402	434	1836	2020	1622	-207	4.87		
2016	1094	711	1805	2021	1623	-25	4.98		
2017	1262	296	1558	2022	1622	-89	4.95		
2018	216	1496	1712	2023	1623	0	5.00		
				Ave	erage Yrs Growth	for 2018 -2023 =	4.93		

The circuits with five years growth and required to be re-cleared in 2019 as part of a five-year cycle principally were most recently cleared in 2014. There are an additional 47 miles of circuits re-cleared as part of Task 1 work prior to 2014 that also are scheduled to be cleared in 2019. The total of these two classes of work (1,155 miles plus 47 miles or 1,202 miles) is 421 miles less than the 1,623 miles projected to be cleared in 2019. These additional miles (reported as a "negative" variance above in Table 5) of work are available to clear circuits most recently cleared in 2015.⁴

⁴ The variances shown in Table 5 above represent a rolling computation beginning in 2019 of the difference between miles cleared to date and the number of miles required to be cleared to maintain a system average five-years vegetation growth. A "positive" variance represents the shortfall in the miles required to maintain a system average of five-years vegetation growth. A "negative" variance represents miles cleared in excess of the amount required to

This additional re-clearing in 2019 beyond that required to maintain the five-year cycle serves to reduce the system average years of growth to 4.74 in 2019.⁵ Because the circuit mileage cleared in the period 2014-2018 varies above and below the approximately 1,623 miles scheduled to be cleared each year of the 2019-2023 cycle, the average system years of vegetation growth also will vary but currently is projected to remain at or below approximately five years.

<u>2019 Vegetation Management Plan – Operational Developments</u>

1. Interruptions and CMI (2019-2023).

Kentucky Power anticipates that with the clearance of its entire distribution system, and the establishment of a five-year cycle in 2019, the sharp decrease in the number of interruptions and CMI illustrated in Diagram 1 will tend to flatten in future years. The Company's efforts, with the support of customers and the Commission, have achieved a significant improvement in system reliability. The two operational developments described below are intended to maintain and, to the extent possible, improve upon the results of the past eight years.

2. Vine Growth.

Vine growth (particularly kudzu) is an increasing vegetation management issue. The Company continues to investigate additional means to mitigate outages resulting from vine growth. Outages caused by vines are coded as an inside the rights-of-way outage. Vines accounted for 233 of 617 (or 37.8%) inside rights-of-way interruptions for the period from July 1, 2017 through June 30, 2018. Vines accounted for 503,911 of the 2,933,156 (or 17.2%) customer minutes of interruption as a result of inside the rights-of-way causes during this same time period.

Vines typically are cut and sprayed when vegetation maintenance is performed on a circuit. Recent investigation indicates that spraying controls vine vegetation for no more than three years. Spraying controls the growth and stem count of woody vegetation (trees and brush) within the rights-of-way for approximately six years.

maintain a system average of five-years vegetation growth. Table 5 indicates a "negative" variance for 2019-2022 and a "zero" (or no variance) in 2023 from a system average of five-years vegetation growth.

⁵ Any of the 1,496 miles of Task 2 work scheduled for 2018 that is not completed prior to initiating the five-year cycle in 2019 also will be cleared. This additional work, if any, will reduce but will not materially affect the calculated system average years of vegetation growth.

The Company will continue to examine improved vine management procedures as outages resulting from trees within the rights-of-way decrease and vines become a greater percentage of the overall cause of within rights-of-way outages.

3. Outside of the Rights-of-Way Vegetation Management Efforts.

The Company also will continue to address outside the rights-of-way vegetation management where appropriate. Kentucky Power's provides service to its customers in the most-heavily forested area within the Commonwealth. Insect infestation, particularly the emerald ash borer, is an increasing concern as the infestation spreads throughout the Company's service territory.

Kentucky Power began a pilot program in the Hazard District in 2018 to widen its rights-of-way by performing vegetation management in areas outside its existing rights-of-way. This allows the Company to address outside the right-of-way causes of outages including, particularly, trees killed by the emerald ash borer. Kentucky Power projects investing \$4 million in 2018 to widen its rights-of-way in the Hazard District to mitigate outside the right-of-way causes of outages. (This investment is in addition to the capital investment associated with 2018 O&M expenditures.)

2019 Distribution Vegetation Management Plan – By District

The planned miles, O&M expenditures, and capital investment for the initial year of the five-year cycle are presented in Table 6 below:

	Table 6: 2019 Kentucky Power Distribution Vegetation Management Plan for 5 Year Cycle - Task 3									
Area	Planned Miles 5 year Cycle Task 3	Unscheduled Reactive O&M Funding	Scheduled O&M Funding	Herbicide Spray	Total O&M Funding	Forestry Capital Associated with Task 3	Forestry Capital Associated with Reliability Performance			
Ashland	496.5	\$75,665	\$5,955,016	\$464,000	\$6,494,681	\$535,951	\$1,500,000			
Hazard	536.5	\$170,667	\$6,037,480	\$606,740	\$6,814,887	\$543,373	\$2,500,000			
Pikeville	589.5	\$125,668	\$6,183,710	\$870,000	\$7,179,378	\$556,547	\$2,500,000			
Totals	1622.5	\$372,000	\$18,176,206	\$1,940,740	\$20,488,946	\$1,635,872	\$6,500,000			

The \$750,000 balance of the \$21,283,946 in projected O&M expenditures (\$21,283,946 - \$20,488,946) for the 2019 Kentucky Power Distribution Vegetation Management Plan cannot be allocated on a per-district basis. These expenses include internal labor and fleet cost. Also,

although unscheduled hotspot maintenance and herbicide spray can be allocated at the district level it is not possible to allocate such efforts by individual circuit.

1. Unscheduled/Reactive Funding.

The Company will continue to budget Unscheduled/Reactive funding in the amount of \$372,000 to address reliability issues that develop during the year. These expenditures also may include tree replacement and stump grinding to resolve escalated customer concerns regarding maintained areas. This level of funding represents 1.74% of the total 2019 Vegetation Management O&M budget.

2. Spray Program.

Kentucky Power's service territory includes some of the most heavily forested areas in the Commonwealth. The Company's spray program is a vital component of controlling cost, achieving targeted miles in future cycles, and maintaining reliability. ULV (Ultra Low Volume), high-volume foliar, basal, cut-surface, and aerial application techniques will be use depending on the brush conditions. Kentucky Power projects treating of 3,338 acres of brush in 2019 at a cost of \$1,940,740. This level of funding represents 9.12% of the total 2019 Vegetation Management O&M budget.

3. Forestry Capital.

The Company projects \$1,635,872 in forestry capital expenditures in 2019 associated with its projected O&M expenditures. This funding will be utilized to remove trees larger than 18 inches in diameter, widen rights-of-way, and for application of Tree Growth Regulator application on the 2019 targeted circuits.

In addition to the \$1.6 million in capital investment directly associated with 2019 vegetation management work, Kentucky Power proposes to expand its Hazard district right-of-way expansion pilot program to each of its three districts. The Company projects \$6.5 million in additional capital investment for right-of-way. This work also will include the removal of dead trees from outside of the existing rights-of-way, particularly where larger numbers of customers might be affected by an outage.

The Company anticipates that this additional capital investment will assist in mitigating the effect on system reliability of the increasing insect infestation and may further improve Kentucky Power's reliability results (outages and CMI) over the next three years. It is too early in the process to quantify the mitigation or improvement.

Exhibit Description

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

<u>Exhibit 1</u> – A circuit-level listing of scheduled 2019 Task 3 work plan. The accompanying projected O&M and associated forestry capital expenditures for each circuit to be worked as part of the 2019 Distribution Vegetation Management Plan also is provided. Finally, Exhibit 1 also includes a Vegetation Management Plan glossary.

Exhibit 2 – The 2019 planned Spray Plan by district.

Exhibit 3 – Summary by district and activity type for 2019 O&M expenditures and capital investment.

Exhibit 1

	T1-0									
Task 3 - Five Year Cycle						unsch	eduled hotsp	ot maintenanc	e, ground & a	aerial spray, and aerial saw.
District	Station Name	Circuit Name	Circuit Number	Circuit Line Miles	Miles Planned	Projected O&M Cost per Mile	O&M Cost	Capital Assoc. with Clearing	Total Cost	Comments
ASH	Hayward	Haldeman	3000801	118.7	52.8	\$11,994	\$633,283	\$56,995	\$690,278	Finish Full Circuit Clearing, from 2018
ASH	Louisa	City	3001401	9.9	9.9	\$11,994	\$118,741	\$10,687	\$129,427	Full Circuit Clearing
ASH	South Shore	Siloam	3002001	38.5	38.5	\$11,994	\$461,769	\$41,559	\$503,328	Full Circuit Clearing
ASH	South Shore	Distribution	3002002	9.1	9.1	\$11,994	\$109,145	\$9,823	\$118,968	Full Circuit Clearing
ASH	10th Street	West Central	3002701	15.7	15.7	\$11,994	\$188,306	\$16,948	\$205,253	Full Circuit Clearing
ASH	Coalton	US 60 West	3003701	87.1	87.1	\$11,994	\$1,044,677	\$94,021	\$1,138,697	Full Circuit Clearing
ASH	Siloam	Distribution	3004301	18.1	18.1	\$11,994	\$217,091	\$19,538	\$236,629	Full Circuit Clearing
ASH	Busseyville	Walbridge	3007906	95.1	85.1	\$11,994	\$1,020,689	\$91,862	\$1,112,551	Finish Full Circuit Clearing, from 2018
ASH	47th Street	Catlettsburg	3008003	26.8	26.8	\$11,994	\$321,439	\$28,930	\$350,368	Full Circuit Clearing
ASH	Cannonsburg	Cannonsburg	3008701	62.6	62.6	\$11,994	\$750,824	\$67,574	\$818,398	Full Circuit Clearing
ASH	Cannonsburg	Rt. 3	3008702	98.5	20.0	\$11,994	\$239,880	\$21,589	\$261,469	Finish Full Circuit Clearing, from 2018
ASH	Wurtland	Greenup	3110902	51.2	27.2	\$11,994	\$326,237	\$29,361	\$355,598	Finish Full Circuit Clearing, from 2018
ASH	Princess	Meade	3117601	46.0	43.6	\$11,994	\$522,938	\$47,064	\$570,002	Begin Full Circuit Clearing
	Ashland District	Totals			496.5		\$5,955,016	\$535,951	\$6,490,967	
									•	
HAZ	Daisy	Leatherwood	3301701	88.4	72.0	\$11,250	\$810,000	\$72,900	\$882,900	Finish Full Circuit Clearing, from 201
HAZ	Leslie	Hals Fork	3303903	76.6	51.1	\$11,900	\$608,090	\$54,728	\$662,818	Finish Full Circuit Clearing, from 201
HAZ	Jackson	South Jackson	3308001	26.6	26.6	\$11,250	\$299,250	\$26,933	\$326,183	Full Circuit Clearing
HAZ	Jackson	Panbowl	3308002	31.4	31.4	\$11,250	\$353,250	\$31,793	\$385,043	Full Circuit Clearing
HAZ	Beckham	Pippa Passes	3308404	56.1	32.5	\$11,250	\$365,625	\$32,906	\$398,531	Finish Full Circuit Clearing, from 201
HAZ	Bonnyman	Hazard	3308502	65.5	46.2	\$11,250	\$519,750	\$46,778	\$566,528	Finish Full Circuit Clearing, from 201
HAZ	Collier	Smoot Creek	3308603	79.7	79.7	\$11,250	\$896,625	\$80,696	\$977,321	Full Circuit Clearing
HAZ	Jeff	Jeff	3309002	5.7	5.7	\$8,050	\$45,885	\$4,130	\$50,015	Full Circuit Clearing
HAZ	Jeff	Viper	3309003	67.0	58.3	\$11,250	\$655,875	\$59,029	\$714,904	Finish Full Circuit Clearing, from 2018
HAZ	Shamrock	Shamrock	3311701	28.7	28.7	\$11,250	\$322,875	\$29,059	\$351,934	Full Circuit Clearing
HAZ	Engle	Industrial Park	3312201	4.1	4.1	\$8,050	\$33,005	\$2,970	\$35,975	Full Circuit Clearing
HAZ	Engle	Grapevine	3312202	100.2	100.2	\$11,250	\$1,127,250	\$101,453	\$1,228,703	Full Circuit Clearing
	Hazard District	Totals			536.5		\$6,037,480	\$543,373	\$6,580,853	
					•	•		•		•
PKV	Barrenshe	Pounding Mill	3200204	16.0	16.0	\$10,490	\$167,840	\$15,106	\$182,946	Full circuit reclear
PKV	Burton	Bevinsville	3400601	19.0	19.0	\$10,490	\$199,310	\$17,938	\$217,248	Full circuit reclear
PKV	Burton	Wheelwright	3400602	21.0	21.0	\$10,490	\$220,290	\$19,826	\$240,116	Full circuit reclear
PKV	Falcon	Oil Springs	3401101	48.5	48.5	\$10,490	\$508,765	\$45,789	\$554,554	Full circuit reclear
PKV	Falcon	Burning Fork	3401103	71.7	71.7	\$10,490	\$752,133	\$67,692	\$819,825	Full circuit reclear
PKV	Mckinney	Gibson	3402202	46.1	46.1	\$10,490	\$483,589	\$43,523	\$527,112	Full circuit reclear
PKV	Pikeville	Main Street	3403002	6.4	6.4	\$10,490	\$67,136	\$6,042	\$73,178	Full circuit reclear
PKV	Beaver Creek	Ligon	3403201	80.0	35.4	\$10,490	\$371,346	\$33,421	\$404,767	Begin Full Circuit Clearing
PKV	Beaver Creek	Price	3403202	21.0	21.0	\$10,490	\$220,290	\$19,826	\$240,116	Full circuit reclear
PKV	Coleman	Peter Creek	3408303	40.0	40.0	\$10,490	\$419,600	\$37,764	\$457,364	Full circuit reclear
PKV	Coleman	Calloway	3408304	36.0	36.0	\$10,490	\$377,640	\$33,988	\$411,628	Full circuit reclear
PKV	Johns Creek	Meta	3411801	167.0	167.0	\$10,490	\$1,751,830	\$157,665	\$1,909,495	Full circuit reclear
PKV	Weeksbury	Distribution	3412901	29.0	29.0	\$10,490	\$304,210	\$27,379	\$331,589	Full circuit reclear
PKV	Consol	Coal Company	3414501	4.6	4.6	\$10,458	\$48,109	\$4,343	\$52,597	Full circuit reclear
PKV	Breaks	City	3421001	27.8	27.8	\$10,490	\$291,622	\$26,246	\$317,868	Full circuit reclear
	Pikeville District	Totals			589.5		\$6,183,710	\$556,547	\$6,740,402	
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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 Re-clear

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 Re-clear

A portion of the circuit is planned for re-clearing.

BID JOB

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

Finish Full Circuit Re-clear

Re-clearing scheduled to complete Full Circuit Re-clear 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 re-clearing specifications (e.g. Hotspotting).

<u>Cycle Buster Tree</u>
A tree that has to be revisited before the circuit is due for its next cycle trim.

Exhibit 2

Kentucky Power 2019 Distribution VM Spray Plan Task 3							
District	District Acres O&M Budget						
Ashland	800	\$464,000					
Hazard	1,038	\$606,740					
Pikville	1,500	\$870,000					
Total 3,338 \$1,940,740							

Exhibit 3

Kentucky Power Company 2019 Distribution VM O&M Forestry Plan - Summary									
<u>Activity</u>	Total O&M	<u>Ashland</u>	<u>Hazard</u>	<u>Pikeville</u>					
Task 3 - Re-clear 5 year Cycle	\$18,176,206	\$5,955,016	\$6,037,480	\$6,183,710					
Spray - Ground and Aerial	\$1,940,740	\$464,000	\$606,740	\$870,000					
Internal - Existing Ky Forestry Staff	\$795,000	\$265,000	\$265,000	\$265,000					
Unscheduled/Reactive Maintenance - Task 3	\$372,000	\$75,665	\$170,667	\$125,668					
Task 3 - O&M Expenditures	\$21,283,946	\$6,759,681	\$7,079,887	\$7,444,378					

Kentucky Power Company 2019 Distribution VM Capital Forestry Plan - Summary								
Activity Total Capital Ashland Hazard Pikevil								
Task 3 - Re-clear 5 year Cycle	\$1,635,872	\$535,951	\$543,373	\$556,547				
Reliability - Piloted Program	\$6,500,000	\$1,500,000	\$2,500,000	\$2,500,000				
Capital Expenditures	\$8,135,872	\$2,035,951	\$3,043,373	\$3,056,547				