COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

Right-of-Way widening work being performed on the Daisy-Leatherwood circuit in the Hazard district.

September 27, 2019

Kentucky Power Company
2020 Vegetation Management Plan (Five-Year Cycle)

Overview

Kentucky Power began its new five-year distribution vegetation management cycle January 1, 2019 in accordance with the Commission's Order in Case No. 2017-00179. Targeted distribution vegetation management O&M expenditures for 2019 are $21.284 million. Targeted O&M expenditures are $20.473 million and $21.689 million for 2020 and 2021 respectively. The amount of the 2019-2021 three-year average annual O&M expenditures ($21,465,163) is embedded in base rates.

2019 Vegetation Management Activities through August 31, 2019

The 2019 distribution vegetation management maintenance expenditures through August 31 were $14,531,382 (68.3%) of the 2019 budget amount of $21,283,946. Through August 31, 2019 the Company completed 1,098.4 miles (67.7%) of the 2019 distribution vegetation management work scheduled of 1623.4 miles.

Table 1 compares by district the expenditures through August 31, 2019 to the targeted year-end expenditures.

Table 1: 5-Year Cycle 2019 Expenditures by District

District	Year-End 2019 Targeted Expenditures	Year-to-date 2019 Actual Expenditures (Jan - Aug)	Year-End 2019 Percent Expenditures
Ashland	$6,793,844	$4,023,873	59.2%
Hazard	$6,843,119	$4,593,549	67.1%
Pikeville	$7,646,982	$5,913,961	77.3%
Total	**$21,283,946**	**$14,531,382**	**68.3%**

Note: Certain regional support expenditures (*e.g.* supervisor and administrative costs) are allocated after the fact to the three districts based on each district's share of total expenditures.

Table 2 compares by district the targeted circuit miles through August 31, 2019 to the targeted 2019 year-end circuit miles.

Table 2: 5-Year Cycle 2019 Circuit Miles by District

District	Year-End 2019 Targeted Miles	Year-to-date 2019 Actual Mileage (Jan - Aug)	Year-End 2019 Percent Complete
Ashland	497.4	303.3	61.0%
Hazard	536.5	332.1	61.9%
Pikeville	589.5	463.0	78.5%
Total	**1,623.4**	**1,098.4**	**67.7%**

Kentucky Power anticipates reaching the 2019 circuit miles and expenditures targets by December 31, 2019. The average years of vegetation growth for the Company's distribution circuits is estimated to be 4.84 years at year end 2019.

Table 3 compares the actual miles and expenditures through August 31, 2019 to targeted 2019 year-to-date miles and expenditures.

Table 3: 2019 Year-to-Date Targeted Miles and Expenditures

District	Year-to-date 2019 Targeted Miles (Jan - Aug)	Year-to-date 2019 Actual Percent Complete (Jan- Aug)	Year-to-date 2019 Targeted Expenditures (Jan - Aug)	Year-to-date 2019 Actual Percent Expenditures (Jan- Aug)
Ashland	317.6	95.5%	$4,577,633	87.9%
Hazard	342.5	97.0%	$4,610,799	99.6%
Pikeville	376.4	123.0%	$5,151,860	114.8%
Total	**1,036.5**	**106.0%**	**$14,340,292**	**101.3%**

Note: Targeted miles are not spread evenly among the four calendar quarters. Spraying and non-vegetation management distribution activities (*e.g.* new customer service requests, storm restoration activity, etc.) are more directed to the second and third quarters. The first and fourth quarters, when there are relatively lower amounts of spraying and non-vegetation management work, are allocated 30 percent of the annual mileage target; the second and third quarters each are assigned 20 percent of the annual mileage target.

The number of vegetation-related interruptions decreased by 1.0% from 617 (twelve-month period ended June 30, 2018) to 611 (twelve-month period June 30, 2019). The number of customer minutes interrupted declined 15.7% from 2,933,156 to 2,473,726 for the same twelve-month periods.

Vine-related outages are included in the reported total inside rights-of-way outages. For the 12 months ending June 30, 2019, vine-related outages constituted 22.5% of inside the right-of-way customer minutes interrupted and approximately 50.4% of inside the right-of-way interruptions.

2020 Vegetation Management Plan – 5-year cycle overview

1. Targeted Mileage and Expenditures

Table 4 below provides the projected distribution vegetation management mileage for the first five-year cycle (calendar years 2019-2023). Table 5 below provides the projected annual O&M expenditures to achieve the targeted miles.

Table 4: 5-Year Cycle Miles of Re-clear

5 Year Cycle	2019	2020	2021	2022	2023
Year 1	1,623				
Year 2		1,622			
Year 3			1,623		
Year 4				1,622	
Year 5					1,623
Targeted Miles	**1,623**	**1,622**	**1,623**	**1,622**	**1,623**

Table 5: 5-Year Cycle - Funding Requirements

5 Year Cycle	2019	2020	2021	2022	2023
Year 1	$21,283,946				
Year 2		$21,472,777			
Year 3			$21,688,685		
Year 4				$21,881,312	
Year 5					$22,101,559
Targeted Miles	**$21,283,946**	**$21,472,777**	**$21,688,685**	**$21,881,312**	**$22,101,559**

2. Average Vegetation Growth

With the establishment beginning January 1, 2019 of a five-year distribution vegetation management cycle, the Company will report the average years of system vegetation growth in addition to the projected miles to be maintained and projected expenditures. Table 6 below provides the projected average years of tree growth for each year of the Company's first five-year cycle (2019-2023).

Table 6: Average Year Tree Growth for Vegetation Management Program

Five Year Cycle		Average Years of Growth
Year	**Targeted Miles**	
2019	1,623	4.84
2020	1,622	4.97
2021	1,623	5.08
2022	1,622	5.04
2023	1,623	5.00
Average Years Growth for 2019 - 2023 =		**4.98**

2020 Vegetation Management Plan – Operational Developments

As Kentucky Power neared the completion of, and then completed, its first complete clearing of its more than 8,000 miles of primary distribution right-of-way, inside the right-of-way outages decreased. The outages caused by trees outside the Company's rights-of-way increased in both absolute numbers and as a percentage of vegetation-related outages. Table 7 below provides for each of the 20 months ended August 31, 2019 Kentucky Power's twelve-month rolling average SAIDI resulting from trees inside the right-of-way, vines, and trees outside the right-of-way, as well as total vegetation-related outages.

Table 7: Reliability for all Vegetation Indices (12-Month Rolling for all Month Ending) - SAIDI Minutes												
2018	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Tree Inside ROW	23.41	23.17	21.69	20.93	19.30	14.72	12.26	12.70	13.88	13.82	12.16	11.76
Vines	1.33	1.36	1.46	1.22	2.38	3.05	3.43	3.44	3.57	3.57	3.62	3.62
Tree Outside ROW	169.44	182.76	193.59	184.16	162.39	171.75	170.37	170.23	197.17	216.09	207.91	219.00
Total SAIDI Veg Min	194.18	207.29	216.74	206.31	184.07	189.52	186.06	186.37	214.62	233.48	223.69	234.38
2019	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**				
Tree Inside ROW	11.82	12.64	11.70	11.76	10.48	11.62	9.39	8.43				
Vines	3.62	3.59	3.52	3.51	3.66	3.37	3.22	3.16				
Tree Outside ROW	234.38	242.85	234.93	250.20	265.34	276.56	266.79	262.11				
Total SAIDI Veg Min	249.82	259.08	250.15	265.47	279.48	291.55	279.4	273.7				

The twelve-month rolling average SAIDI minutes related to trees inside rights-of-way, excluding vines, decreased approximately 15 minutes (64.0%) between January 2018 and August 2019. Trees inside the right-of-way outages constituted approximately 3.1% of the Company's vegetation-related SAIDI minutes at the end of August 2019 (down from 12.1% in January 2018). The twelve-month rolling average of vine-related outages increased slightly (1.8 minutes) during the same period; they constitute 1.2% of the Company's vegetation-related SAIDI minutes at August 31, 2019. Outages related to trees outside of rights-of-way increased over the last 20 months by approximately 93 minutes and now represent nearly 95.8% of the Company's total vegetation-related SAIDI minutes.

Rainfall between January 2018 and August 2019 was 16.12 inches above the 30-year average ending 2010. (See Table 8 below based on National Weather Service records for Jackson, KY).

Table 8: Recorded Data from National Weather Service for Jackson, KY

30 Yr Normal Precip (1981 - 2010) Jackson Area, KY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Norm
	3.61	3.75	4.12	3.83	5.20	4.70	4.65	3.69	3.46	3.19	3.96	4.18	48.34

Monthly Total Inches Precipitation for Jackson Area, KY														
	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
	2000	2.63	3.53	1.94	4.97	4.33	6.80	5.69	4.38	4.92	1.07	1.47	4.35	46.08
	2001	2.50	3.72	2.17	1.69	4.39	4.19	6.43	2.41	1.09	1.41	1.82	2.55	34.37
	2002	4.09	1.24	7.96	4.11	5.23	4.98	5.50	1.72	3.48	6.39	3.61	4.28	52.59
	2003	2.10	7.88	1.47	5.14	5.98	7.54	3.95	5.12	4.33	2.20	5.49	3.78	54.98
	2004	4.23	3.77	3.87	4.01	10.78	6.18	7.02	2.39	7.55	4.96	4.37	3.27	62.40
	2005	5.12	3.03	3.52	7.47	2.50	2.78	4.08	3.92	0.51	1.57	2.66	3.18	40.34
	2006	5.57	1.85	2.89	4.57	3.61	3.24	3.87	3.69	6.39	5.49	2.43	2.03	45.63
	2007	2.83	1.20	2.71	3.22	1.82	2.15	4.05	2.64	2.49	3.80	3.37	5.18	35.46
	2008	2.46	3.41	4.14	4.00	3.24	3.94	6.13	1.16	0.67	1.46	3.03	6.86	40.50
	2009	5.80	1.73	3.52	3.64	9.22	7.03	6.40	3.55	4.88	3.54	0.80	5.96	56.07
	2010	4.27	3.11	2.43	2.61	7.92	5.60	3.34	3.51	2.05	1.68	5.77	2.97	45.26
	2011	2.72	3.97	4.74	10.20	6.69	5.49	6.02	3.07	3.20	4.25	5.48	4.18	60.01
	2012	4.86	3.90	4.07	2.67	4.20	1.91	7.39	4.75	6.77	4.24	0.84	6.39	51.99
	2013	5.73	1.91	4.63	3.70	4.23	6.36	6.62	10.04	1.27	2.13	3.01	7.09	56.72
	2014	3.15	4.47	5.51	5.43	2.30	3.12	5.77	8.55	2.35	7.77	2.97	2.49	53.88
	2015	2.12	4.06	6.26	10.29	1.74	7.42	8.87	5.02	2.09	2.40	2.41	4.64	57.32
	2016	3.29	6.27	2.38	3.82	7.04	5.01	6.35	6.83	1.32	1.51	2.91	6.16	52.89
	2017	4.71	2.86	4.42	4.02	7.41	6.21	4.13	4.56	3.33	5.29	1.30	3.28	51.52
	2018	1.92	8.00	6.97	4.12	6.18	4.63	5.06	4.43	9.17	5.12	4.91	7.47	67.98
	2019	4.26	8.87	2.40	2.80	4.90	8.01	6.97	1.25					*39.46*
	20 Yr Mean (through Jun 2019)	3.72	3.94	3.90	4.62	5.19	5.13	5.68	4.15	3.57	3.49	3.09	4.53	50.84
	3 Yr Mean ('16 - '18)	3.31	5.71	4.59	3.99	6.88	5.28	5.18	5.27	4.61	3.97	3.04	5.64	57.46
	5 Yr Mean ('14 - '18)	3.04	5.13	5.11	5.54	4.93	5.28	6.04	5.88	3.65	4.42	2.90	4.81	56.72

This above-average rainfall in turn increased the risk of outside of right-of-way-related outages in two ways. First, heavy rainfalls can cause trees located on slopes above the rights-of-way to slide or fall into the distribution lines. Second, the above-average rainfall compounded established vegetative and insect threats in the Company's service territory that can weaken and kill trees. These threats include increased incidences of pathogens and/or fungal disease (Oak wilt, White Pine blister rust, root rot – multiple species) and insects (Emerald Ash Borer and Hemlock Wooly Adelgid) resulting from the increased rainfall in the area. The weakened or dead trees are more likely to fall or slide into the Company's distribution lines and structures and cause outages. Conservative estimates indicate approximately 5.1 million trees outside the Company's rights-of-way threaten Kentucky Power's distribution structures and lines.

To address these issues the Company began rights-of-way widening and outside of right-of-way dead tree abatement programs in January 2018. The Company focused its initial efforts on the Hazard District, which has some of the steepest terrain in the Company's service territory, and thus presented the greatest risk of trees falling or sliding into Kentucky Power's distribution lines and structures. By the end of June 2019, the Company completed widening approximately 325 miles of the 2,669 primary miles in the Hazard District. The completed widening impacted

sections of the multiphase lines on 24 of the 60 circuits in the Hazard District. From January 2018 to June 2019 the widened circuits saw a SAIDI reduction of 36.7 SAIDI minutes (12.4%) versus the three-year average for the same circuits. By contrast, the non-targeted Hazard circuits increased by 70.1 SAIDI minutes (44.5%) versus the three-year average for the same circuits.

The Company is now shifting crews from the Hazard District to the Pikeville District. Kentucky Power will use the same targeted approach in the Pikeville District as it used in the Hazard District to produce the greatest reliability improvement.

2020 Distribution Vegetation Management Plan – by District

The 2020 distribution vegetation management plan expenditures by district are shown below in Table 9.

Table 9: 2020 Kentucky Power Distribution Vegetation Management Plan for 5-Year Cycle

Area	Planned Miles 5-Year Cycle	Unscheduled Reactive O&M Funding	Scheduled O&M Funding	Herbicide Spray	Internal Forestry Staff	Total O&M Funding	Forestry Capital Associated with Cycle	Forestry Capital Associated with Reliability Performance
Ashland	496.5	$75,734	$6,071,486	$465,500	$272,500	$6,885,220	$546,434	$250,000
Hazard	536.5	$160,733	$6,210,631	$598,500	$272,500	$7,242,364	$558,957	$750,000
Pikeville	589.5	$120,733	$6,253,710	$698,250	$272,500	$7,345,193	$556,534	$5,500,000
Totals	**1,622.5**	**$357,200**	**$18,535,827**	**$1,762,250**	**$817,500**	**$21,472,777**	**$1,661,925**	**$6,500,000**

Internal Forestry Staff expenses, which are allocated after-the-fact based on the percentage of total distribution vegetation expenditures made in each district, are shown in Table 9 as evenly divided between the three districts. Unscheduled hotspot maintenance and herbicide spray expenditures are allocated at the district level but cannot be allocated to individual circuits.

1. Unscheduled/Reactive Funding

The Company will continue to budget $357,200 in Unscheduled/Reactive funding to address reliability issues that develop during the year. These expenditures also include tree replacement, stump grinding and removal of vines that return before the next trim cycle. This level of funding represents 1.66% of the total 2020 Vegetation Management O&M budget.

2. Spray Plan

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. The spray plan includes ground based and aerial application techniques that are dependent on brush conditions. Kentucky Power projects treating 2,650 acres of brush in 2020 at a cost of $1,762,250. This represents 8.21% of the total Vegetation Management O&M budget.

3. Forestry Capital Plan

The Company projects $1,661,925 in 2020 forestry capital expenditures associated with its projected distribution vegetation management 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 to the 2020 targeted circuits.

Kentucky Power proposes to invest $6.5 million for widening rights-of-way. This $6.5 million investment is in addition to the $1.7 million in capital investment directly associated with the 2020 distribution vegetation maintenance work across the three districts. The Company proposes to invest $5.5 million of the $6.5 million targeted for additional rights-of-way widening in the Pikeville District. This work also will include the removal of dead trees from outside the rights-of-way, particularly where large number of customers might be affected by an outage.

Exhibit Description

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

Exhibit 1 – A circuit-level listing of scheduled 2020 work. The accompanying projected O&M and associated forestry capital expenditures for each circuit to be worked as part of the 2020 Distribution Vegetation Management Plan also is provided.

Exhibit 2 – The 2020 spray plan by district.

Exhibit 3 – Summary by district and activity type for 2020 O&M expenditures and capital investment.

Exhibit 4 – Kentucky Power forestry plan terminology/glossary.

Exhibit 1

2020 Kentucky Power Distribution VM Plan 5-Year Cycle						Costs that are not allocated to a circuit include: internal labor & fleet costs, unscheduled hotspot miantenance, ground & 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	Ashland	25th St	3000101	1.3	1.3	$12,229	$15,898	$1,431	$17,329	Full Circuit Reclear
ASH	Ashland	29th St	3000102	6.8	6.8	$12,229	$83,159	$7,484	$90,644	Full Circuit Reclear
ASH	Ashland	14th St	3000103	1.4	1.4	$12,229	$17,121	$1,541	$18,662	Full Circuit Reclear
ASH	Ashland	3rd St	3000104	0.2	0.2	$12,229	$2,446	$220	$2,666	Full Circuit Reclear
ASH	Ashland	1st St	3000105	1.7	1.7	$12,229	$20,790	$1,871	$22,661	Full Circuit Reclear
ASH	Big Sandy	Burnaugh North	3000202	85.1	63.1	$12,229	$771,670	$69,450	$841,120	Begin Full Circuit Reclear
ASH	Bellefonte	Flatwoods	3000302	3.1	3.1	$12,229	$37,911	$3,412	$41,323	Full Circuit Reclear
ASH	Bellefonte	Town Center	3000304	2.7	2.7	$12,229	$32,897	$2,961	$35,858	Full Circuit Reclear
ASH	Highland	Russell	3000901	24.6	24.6	$12,229	$300,841	$27,076	$327,917	Full Circuit Reclear
ASH	Highland	Flatwoods	3000902	20.0	20.0	$12,229	$244,586	$22,013	$266,599	Full Circuit Reclear
ASH	Highland	Wurtland	3000903	15.3	15.3	$12,229	$187,108	$16,840	$203,948	Full Circuit Reclear
ASH	Howard Collins	13th St	3001201	13.0	13.0	$12,229	$158,981	$14,308	$173,289	Full Circuit Reclear
ASH	Howard Collins	Floyd	3001203	11.1	11.1	$12,229	$135,501	$12,195	$147,696	Full Circuit Reclear
ASH	Busseyville	Torchlight	3007904	97.4	81.1	$12,229	$991,797	$89,262	$1,081,059	Finish Full Circuit Reclear, from 2019
ASH	Busseyville	Walbridge	3007906	95.1	8.0	$12,229	$97,834	$8,805	$106,640	Finish Full Circuit Reclear, from 2019
ASH	Russell	Bear Run	3010602	12.0	12.0	$12,229	$146,752	$13,208	$159,959	Full Circuit Reclear
ASH	Russell	Ashland Oil	3010603	0.8	0.8	$12,229	$9,783	$881	$10,664	Full Circuit Reclear
ASH	Olive Hill	Globe	3103101	121.1	96.1	$12,229	$1,175,237	$105,771	$1,281,008	Finish Full Circuit Reclear, from 2019
ASH	Grayson	Lansdowne	3116101	35.4	35.4	$12,229	$432,918	$38,963	$471,880	Full Circuit Reclear
ASH	Grayson	Dixie Park	3116102	33.1	33.1	$12,229	$404,790	$36,431	$441,221	Full Circuit Reclear
ASH	Belhaven	Diedrich	3116701	8.9	8.9	$12,229	$108,841	$9,796	$118,637	Full Circuit Reclear
ASH	Belhaven	Indian Run	3116702	19.1	19.1	$12,229	$233,580	$21,022	$254,602	Full Circuit Reclear
ASH	Belhaven	Argillite	3116703	27.7	27.7	$12,229	$338,752	$30,488	$369,240	Full Circuit Reclear
ASH	Princess	Meade	3117601	46.0	10.0	$12,229	$122,293	$11,006	$133,299	Finish Full Circuit Reclear, from 2019
Ashland District Totals					**496.5**		**$6,071,486**	**$546,434**	**$6,617,920**	
HAZ	Bluegrass	Hazard	3300602	11.1	11.1	$11,576	$128,494	$11,564	$140,058	Full Circuit Reclear
HAZ	Hazard	Blackgold	3302701	30.3	30.3	$11,576	$350,753	$31,568	$382,321	Full Circuit Reclear
HAZ	Hazard	Hazard	3302703	11.1	11.1	$11,576	$128,494	$11,564	$140,058	Full Circuit Reclear
HAZ	Leslie	Hyden	3303901	89.4	89.4	$11,576	$1,034,894	$93,140	$1,128,035	Full Circuit Reclear
HAZ	Leslie	Wooton	3303903	129.9	82.9	$11,576	$959,650	$86,369	$1,046,019	Finish Full Circuit Reclear - from 2019
HAZ	Collier	Upper Rockhouse	3308601	37.3	37.3	$11,576	$431,553	$38,840	$470,393	Full Circuit Reclear
HAZ	Whitesburg	Cowan	3309103	43.9	43.9	$11,576	$508,186	$45,737	$553,923	Full Circuit Reclear
HAZ	Vicco	Redfox	3309301	47.8	47.8	$11,576	$553,449	$49,810	$603,259	Full Circuit Reclear
HAZ	Slemp	Beechfork	3309903	1.7	1.7	$11,576	$19,911	$1,792	$21,703	Full Circuit Reclear
HAZ	Slemp	Royal Diamond	3309904	2.3	2.3	$11,576	$26,625	$2,396	$29,021	Full Circuit Reclear
HAZ	Engle	Grapevine	3312202	99.6	47.5	$11,576	$549,628	$49,467	$599,095	Finish Full Circuit Reclear - from 2019
HAZ	Mayking	Ermine	3314401	28.1	28.1	$11,576	$324,930	$29,244	$354,173	Full Circuit Reclear
HAZ	Mayking	Millstone	3314402	53.5	53.5	$11,576	$619,316	$55,738	$675,054	Full Circuit Reclear
HAZ	Softshell	Leburn	3420002	49.7	49.7	$11,576	$574,748	$51,727	$626,476	Full Circuit Reclear
Hazard District Totals					**536.5**		**$6,210,631**	**$558,957**	**$6,769,588**	
PKV	Allen	Distr	3400101	27.2	27.2	$10,608	$288,551	$25,679	$314,230	Full Circuit Reclear
PKV	Falcon	Salyersville	3401102	45.0	45.0	$10,608	$477,382	$42,484	$519,866	Full Circuit Reclear
PKV	Falcon	Burning Fork	3401103	72.6	72.6	$10,608	$770,177	$68,540	$838,717	Full Circuit Reclear
PKV	Keyser	Mullins	3402003	29.6	29.6	$10,608	$314,012	$27,945	$341,956	Full Circuit Reclear
PKV	Pikeville	City	3403001	20.0	20.0	$10,608	$212,170	$18,882	$231,052	Full Circuit Reclear
PKV	Pikeville	Cedar Creek	3403003	28.0	28.0	$10,608	$297,038	$26,434	$323,472	Full Circuit Reclear
PKV	Spring Fork	Single Phase	3404002	8.2	8.2	$10,608	$86,990	$7,741	$94,731	Full Circuit Reclear
PKV	Sidney	Coburn Mtn	3404302	46.1	46.1	$10,608	$489,052	$43,522	$532,574	Full Circuit Reclear
PKV	W. Paintsville	Staffordsville	3409002	47.0	47.0	$10,608	$498,599	$44,372	$542,971	Full Circuit Reclear
PKV	Kenwood	Auxier	3409302	40.2	40.2	$10,608	$426,462	$37,952	$464,414	Full Circuit Reclear
PKV	Feds Creek	Feds Creek	3409401	41.0	41.0	$10,608	$434,948	$38,707	$473,656	Full Circuit Reclear
PKV	Feds Creek	Lick Creek	3409402	17.0	17.0	$10,608	$180,344	$16,049	$196,394	Full Circuit Reclear
PKV	E. Prestonsburg	Lancer	3410602	25.0	25.0	$10,608	$265,212	$23,602	$288,814	Full Circuit Reclear
PKV	Dewey	Inez	3411401	15.3	15.3	$10,608	$162,310	$14,444	$176,754	Full Circuit Reclear
PKV	Johns Creek	Raccoon	3411802	84.0	84.0	$10,608	$891,114	$79,303	$970,416	Full Circuit Reclear
PKV	Garrett	Garrett	3413401	38.4	38.4	$10,608	$407,366	$36,253	$443,619	Full Circuit Reclear
PKV	Beefhide	Beefhide	3451201	4.0	4.0	$10,608	$42,434	$3,776	$46,210	Full Circuit Reclear
PKV	Big Rock	Conaway	3974101	0.9	0.9	$10,608	$9,548	$850	$10,397	Full Circuit Reclear
Pikeville District Totals					**589.5**		**$6,253,710**	**$556,534**	**$6,810,244**	
Kentucky Power Totals					**1,622.5**		**$18,535,827**	**$1,661,925**	**$20,197,752**	

Exhibit 2

Kentucky Power 2020 Distribution Vegetation Management Spray Plan		
District	**Acres**	**O&M Budget**
Ashland	700	$465,500
Hazard	900	$598,500
Pikville	1,050	$698,250
Total	**2,650**	**$1,762,250**

Exhibit 3

Kentucky Power Company 2020 Distribution VM O&M Forestry Plan - Summary				
Activity	**Total O&M**	**Ashland**	**Hazard**	**Pikeville**
Re-clear 5-year Cycle	$18,535,827	$6,071,486	$6,210,631	$6,253,710
Spray - Ground and Aerial	$1,762,250	$465,500	$598,500	$698,250
Internal - Existing Ky Forestry Staff	$817,500	$272,500	$272,500	$272,500
Unscheduled/Reactive Maintenance	$357,200	$75,734	$160,733	$120,733
O&M Expenditures	**$21,472,777**	**$6,885,220**	**$7,242,364**	**$7,345,193**

Kentucky Power Company 2020 Distribution VM Capital Forestry Plan - Summary				
Activity	**Total Capital**	**Ashland**	**Hazard**	**Pikeville**
Re-clear 5-year Cycle	$1,661,925	$546,434	$558,957	$556,534
Reliability - Piloted Program	$6,500,000	$250,000	$750,000	$5,500,000
Capital Expenditures	**$8,161,925**	**$796,434**	**$1,308,957**	**$6,056,534**

Exhibit 4

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. Hot-spotting).