# COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION



Cannonsburg – Cannonsburg Circuit near Boyd County High School.

2018 Task 2 – Brush Reclear by mower

The Ashland District began in 2018 to use a mower to re-clear brush within its distribution rights-of-way.

# 2017 DISTRIBUTION VEGETATION MANAGEMENT REPORT OF KENTUCKY POWER COMPANY

In accordance with the Public Service Commission's June 22, 2015 Order in Case No. 2014-00396, as modified by its January 18, 2018 Order in Case No. 2017-00179, Kentucky Power provides the following report regarding the operation of its 2017 Distribution Vegetation Management Program.

#### INTRODUCTION

Kentucky Power completed all Task 1 work on March 30, 2018. Kentucky Power projects completing the remaining approximately 1,496 miles of Task 2 work remaining as of December 31, 2017 no later than December 31, 2018. Task 3 (maintenance cycle) work is scheduled to commence January 1, 2019.

Since the Vegetation Management Program began in July 2010, the annual number of Tree Inside Right-of-Way outages (excluding major event days) has been reduced by approximately 71% from 2,250 to 660. The annual number of customer minutes of interruption associated with these events has been reduced by approximately 67% from 12,280,664 to 4,098,559.

#### **BACKGROUND**

Kentucky Power filed its 2017 Distribution Vegetation Management Plan on September 27, 2016. The Company subsequently informed the Commission in connection with the filing on July 20, 2017 of its application<sup>2</sup> for a general adjustment of its rates that it planned to shift previously budgeted 2017 Task 2 spending to the more expensive Task 1 work in 2017. Doing so enabled Kentucky Power to accelerate the planned completion of almost all of the more costly

<sup>&</sup>lt;sup>1</sup> Work on a single circuit in the Pikeville District remains to be completed pending a scheduled outage for other reasons on the circuit. The remaining vegetation management work on the single circuit will require a two-hour outage. To avoid unnecessarily inconveniencing customers on the circuit, the Company delayed the remaining vegetation management work on the circuit so that it could be performed in April 2018 at the time of a scheduled outage for other reasons. Absent the decision to delay the work so that it could be coordinated with the other scheduled outage, the Company would have completed the work in the Pikeville District on or before March 30, 2018.

<sup>&</sup>lt;sup>2</sup> Application, In the Matter of: Electronic Application Of Kentucky Power Company For (1) A General Adjustment Of Its Rates For Electric Service; (2) An Order Approving Its 2017 Environmental Compliance Plan; (3) An Order Approving Its Tariffs And Riders; (4) An Order Approving Accounting Practices To Establish Regulatory Assets Or Liabilities; And (5) An Order Granting All Other Required Approvals And Relief, Case No. 2017-00179 (Ky. P.S.C. Filed July 20, 2017).

Task 1 work, and thus avoid the consequent need to fund that work through the base rates to be established effective January 19, 2018. Kentucky Power presented three modifications in the July 20, 2017 filing to its previously filed 2017 Vegetation Management work and funding plan:

- Kentucky Power planned to shift \$6.4 million from previously scheduled 2017 Task 2 work to 2017 Task 1 work. The Company thereby proposed to increase projected 2017 Task 1 spending by \$6,418,095 from \$17,237,965 to \$23,656,060. Projected 2017 Task 2 spending was reduced by a like amount from \$10,423,095 to \$4,005,000.
- The funding shift was projected to enable Kentucky Power to complete 1,334 miles (an increase of 183 miles from the 1,151 miles projected in the 2017 Vegetation Management Plan as initially filed in September 2016) of Task 1 work in 2017. The projection for Task 2 work to be completed in 2017 decreased from 788 miles to 313 miles as a result of the funding shift.
- The funding and activity shifts were projected to permit Kentucky Power to complete Task 1 work by the first quarter 2018, or nine months earlier than was projected in Case No. 2014-00396. Task 2 work was projected to be completed by December 31, 2018, or six months earlier than projected in Case No. 2014-00396. Under the revised 2017 plan, Task 3 (maintenance) work was scheduled to begin January 1, 2019 and maintain the Company's distribution system on a five-year cycle.

With these modifications, the Company proposed the following expenditure targets and work schedule:

**Table 1 – 2017 Vegetation Management Projected Expenditures** 

	2017 Ve	getation M	anagemer	nt Projecte	d Expend	itures	
	2017	2018	2019	2020	2021	2022	2023
Funds							
Year 1			\$21,283,946				
Year 2				\$21,472,777			
Year 3	\$4,005,000				\$21,688,685		
Year 4		\$19,219,118				\$21,881,312	
Year 5							\$22,101,559
Year 6							
Year 7							
Year 8	\$23,656,060						
Year 9		\$2,419,648					
Program Funds	\$27,661,060	\$21,638,766	\$21,283,946	\$21,472,777	\$21,688,685	\$21,881,312	\$22,101,559
			Task 1 - Initia	al Re-clear			
			Task 2 - Inter	im Re-Clear			
			Task 3 - 5 Ye	ar Cycle Trim			

Table 2 – Vegetation Management Plan Work Schedule

			201	7 Vege	etation	Manag	gemen	t Wor	k Sche	dule				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Miles														
Year 1	345					434				1623				
Year 2		942					711				1622			
Year 3			866					313				1623		
Year 4				831					1479				1622	
Year 5					1155									1623
Year 6						1402								
Year 7							1094							
Year 8								1334						
Year 9									144					
Program Miles	345	942	866	831	1155	1836	1805	1647	1623	1623	1622	1623	1622	1623
						Task 1	- Initial R	e-clear				-		-
						Task 2	- Interim	Re-clea	r					
							- 5 Year							

With these modifications, Kentucky Power proposed reducing, effective January 19, 2018, the distribution Vegetation Management Plan O&M expense in the then-current base rates from \$27,661,060 to \$21,465,163. The Commission approved the Company's July 20, 2017 vegetation management proposal by its order dated January 18, 2018, including the approximate \$6.2 million reduction in the amount of vegetation management expensed included in base rates.<sup>3</sup>

# 2017 Expenditures and Rights-of-Way Work Performed

#### **2017 Distribution Vegetation Management Expenditures**

Total 2017 O&M expenditures for the Distribution Vegetation Management program were \$27,840,992. The 2017 total O&M expenditures exceeded the 2017 Plan expenditure target of \$27,661,060 (as modified by the July 20, 2017 filing) by \$179,932 (0.65%).

Task 1 O&M expenditures in 2017 were \$22,981,617. This expenditure level was 2.85 percent below the targeted level of \$23,656,060 (-\$674,443). The time required for planning the additional Task 1 circuit work, making required customer contacts, and shifting crews from Task 2 work to Task 1 work exceeded the Company's original estimate and thereby delayed the start of the accelerated Task 1 work. Notwithstanding this delay, Kentucky Power met its March 30, 2018 target for completing all Task 1 work.

Task 2 O&M expenditures in 2017 were \$4,859,374 exceeded the July 20, 2017 revised target of \$4,005,000 by 21.3 percent (\$854,374). Task 2 work continued at higher than estimated levels while the Company planned for and transitioned to additional Task 1 work.

In 2017 Kentucky Power made Distribution Vegetation Management Plan Task 1 and Task 2 capital investments of \$3,789,067. Actual capital investments exceeded the targeted level

<sup>&</sup>lt;sup>3</sup> Order, In the Matter of: Electronic Application Of Kentucky Power Company For (1) A General Adjustment Of Its Rates For Electric Service; (2) An Order Approving Its 2017 Environmental Compliance Plan; (3) An Order Approving Its Tariffs And Riders; (4) An Order Approving Accounting Practices To Establish Regulatory Assets Or Liabilities; And (5) An Order Granting All Other Required Approvals And Relief, Case No. 2017-00179 (Ky. P.S.C. January 18, 2018).

<sup>&</sup>lt;sup>4</sup> See footnote 1.

of \$1,828,546 by \$1,960,521. The majority of the increased capital investments involved the removal of trees of diameter of 18 inches or greater from rights-of-way.

### **2017 Vegetation Management Mileage Cleared**

Work associated with the 2017 Vegetation Management mileage cleared included trimming 97,816 trees, clearing 3,690 acres of brush, spraying 2,472 acres to control vegetation, and removing 312,231 trees. Spraying limits vegetation growth between cycles.

Table 3 below compares the 2017 work completed to the projections contained in its revised 2017 Plan:

Tabl	Table 3: 2017 Work Plan										
Work/Task	Work/Task Revised Plan Work Complet										
Task 1	1334	1262									
Task 2	313	296									
<b>Acres Sprayed</b>	3008	2472									

Factors that contributed to the variations between projected work and work performed included:

- To accelerate the cost-effective completion of Task 1 work during 2017, and to retain trained crews, the Company transferred crews from the Hazard District (which had the least amount of Task 1 work (329 miles) remaining at the beginning of 2017) to the Ashland District (which had the greatest amount of Task 1 work (631 miles) remaining at the beginning of 2017). The transferred crews, which are required to work away from their assigned work station, are paid a per diem to remain in the Ashland District and thereby to improve their efficiency by avoiding the loss of daily travel time. This per diem led to higher costs (and thus less miles clear than projected) but permitted Kentucky Power, beginning January 19, 2018, to decrease by \$6,195,897 the amount of distribution vegetation management expense included in base rates.
- Additional expenses were incurred in connection with Task 2 work in part due to the removal of "overhang". Overhang is vegetation, principally tree limbs, that is outside the normal clearance zone, but that could fall into the conductor or poles in the event of storm. Removing overhang while the crews are on site performing Task 2 work

improves in a cost-effective manner the efficacy of the Company's vegetation management efforts, and hence should improve reliability.

• Kentucky Power is a party to mutual assistance agreements whereby other utilities send line and forestry crews to assist Kentucky Power with storm restoration efforts. Kentucky Power regularly has received the benefit of these storm restoration efforts in the past. In return, the Company may be called upon to provide storm restoration assistance to other parties to the mutual assistance agreement. The extraordinary 2017 storm season led to Kentucky Power sending crews to Maine, Florida, and Texas to assist with storm restoration efforts. Kentucky Power is reimbursed by the assisted utility for these efforts. Approximately one-third of the vegetation management crews were involved in providing mutual assistance for approximately eight to ten weeks in 2017. To remain on schedule to complete Task 1 work by March 30, 2018 and Task 2 work by December 31, 2018, Kentucky Power estimates that approximately 12 to 15 miles were cut at an overtime premium thereby reducing the amount of work that could be completed in 2017.

Notwithstanding these variations, Kentucky Power met its March 30, 2018 target for completing all Task 1 work.<sup>5</sup>

### 2017 Distribution Vegetation Management Work by District

Table 4 below details Company's 2017 District O&M expenditures by district. Expenses that cannot be assigned to a specific District were allocated based on each district's percentage of the total assigned costs.

1	Table 4: 2017 Det	ails of District O&	&M Expenditures	
Nature of Expense	Ashland	Hazard	Pikeville	Kentucky Total
Task 1	\$9,442,260	\$4,350,884	\$8,699,110	\$22,492,254
Internal Labor Task 1	\$153,502	\$148,659	\$187,202	\$489,362
Subtotal Task 1	\$9,595,762	\$4,499,543	\$8,886,312	\$22,981,617
Task 2	\$1,394,236	\$2,602,867	\$711,361	\$4,708,464
Internal Labor Task 2	\$57,941	\$80,091	\$12,878	\$150,910
Subtotal Task 2	\$1,452,177	\$2,682,958	\$724,239	\$4,859,374
TOTAL	\$11,047,939	\$7,182,501	\$9,610,551	\$27,840,992

Table 5 below provides the 2017 Task 1 and Task 2 work performed by district and estimated work remaining as of December 31, 2017.

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<sup>&</sup>lt;sup>5</sup> See footnote 1.

Table 5: 2017 Actua	al District Mileag	ge Performed and	d Remaining Task	1 & 2 Mileage
Work Task	Ashland	Hazard	Pikeville	Kentucky Total
Task 1	559.9	281	421.1	1262
Task 2	102.6	176.4	17.2	296.2
Total Re-Clear Miles	662.5	457.4	438.3	1558.2
Acres Sprayed	59.9	902	1510.5	2472.4
Remaining Task 1 Miles	72.7	60.7	82.1	215.5
Remaining Task 2 Miles	420.2	545.3	530.5	1496

Attachment 1 to this report details the Task 1 Vegetation Management work and expenditures by circuit. Attachment 2 similarly reports the 2017 Task 2 Vegetation Management work and expenditures by circuit. Both attachments provide the number of miles of circuit completed for each task, acres of brush cut, acres of brush sprayed, amount of tree growth regulator (soil injection) applied, number of trees removed, and number of trees trimmed.

Consistent with past filings, total O&M expenditures and capital investment is reported on circuit-by-circuit basis. Also, certain O&M expenditures, Internal Labor & Fleet, unscheduled hotspot maintenance, trouble restoration work, tree ticket investigation, auditor expenses, and tree contractor's field supervision, cannot be allocated on a circuit basis. For example, tree contractor's field supervision cannot be allocated because circuit-specific time sheets are not generated for the General Foreman when the crews are working on multiple circuits. These amounts, although reported as Task1 work or Task 2 work, cannot be reported by circuit.

#### Status of Task 1 and Task 2 Work

Kentucky Power completed Task 1 work along its entire distribution system on March 30, 2018.<sup>6</sup> The Company projects completing Task 2 on or before December 31, 2018, at which time the average years tree growth along its entire distribution system will be 5 years.

#### Measures of Improvement in System Reliability (SAIFI, CAIDI, SAIDI, and CMI)

Table 6 provides total system reliability indices for Kentucky Power's distribution system from 2010 (when the Vegetation Management Program began) through December 31, 2017.

<sup>&</sup>lt;sup>6</sup> See footnote 1.

Table 7 provides reliability indices limited to Tree Inside of Rights-of-Way outages for the same period.

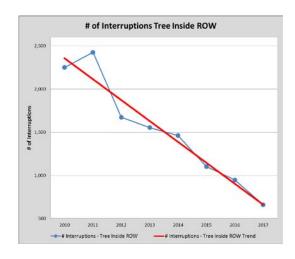
Table 6 and Table 7 include data relating to the System Average Interruption Frequency Index ("SAIFI"), the Customer Average Interruption Duration Index ("CAIDI"), and the System Average Interruption Duration Index ("SAIDI") for each reporting period. Excluded from the calculation of the indices are major events as defined by IEEE standard 1366.

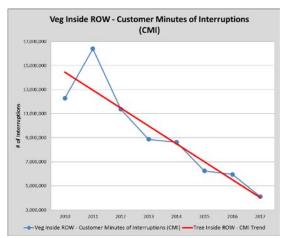
Table	Table 6: Eight Year Reporting Indices for all Outage Cause Codes										
Year	SAIFI	CAIDI	SAIDI								
2010	2.470	169.4	418.4								
2011	3.085	195.4	602.8								
2012	2.417	189.5	458.0								
2013	2.144	178.5	382.7								
2014	2.373	212.9	505.3								
2015	2.467	189.8	468.1								
2016	2.167	205.7	445.8								
2017	2.169	187.3	406.3								

Table 7:	Eight Year Re	porting Indice	es for Tree									
Inside Rights-of-Way Outage Cause Codes												
Year	r Right-of-Way Right-of-Way Right-of-Way SAIFI CAIDI SAIDI											
2010	0.3714	190.8	70.87									
2010	0.4192	227.4	95.32									
2012	0.2562	258.8	66.31									
2013	0.2815	184.3	51.88									
2014	0.2154	236.3	50.89									
2015	0.1782	207.6	37.00									
2016	0.1719	207.2	35.61									
2017	0.1137	216.7	24.63									

Table 7 highlights the efficacy of the Company's Vegetation Management Program. The 2017 Tree Inside Right-of-Way SAIFI and SAIDI metrics are 58.0% below, and 57.7% below, respectively, the average Tree Inside Right-of-Way SAIFI, and SAIDI metrics for the period 2010-2016. The CAIDI metrics remained flat for this same time period: a six year average duration of 216.057 minutes vs. the 2017 metric of 216.7 minutes. This is consistent with the nature of CAIDI, which measures the duration or amount of time for crews to respond, assess and identify the trouble, and remove any debris that may have caused the outage.

Since the Vegetation Management Program began in July 2010, the annual number of Tree Inside Right-of-Way outages (excluding major event days) has been reduced by approximately 71% from 2,250 to 660. The annual number of customer minutes of interruption associated with these events has been reduced by approximately 67% from 12,280,664 to 4,098,559.





# **Vegetation Management Program-to-Date Expenditures**

Kentucky Power committed to expend \$155,224,278 on Vegetation Management O&M from the beginning of the program June 29, 2010 through December 31, 2017. In that period the Company expended \$156,958,168 or \$1,733,890 (1.1%) more than its commitment.

Та	ble 8: Vegetation Year to Yea	n Management P ar Expenditures	rogram									
Year	O&M Vegetation Management Program											
	Planned Dollars Actual Dollars Variance											
2010	\$8,618,983	\$8,950,346	\$331,363									
2011	\$17,237,965	\$17,261,128	\$23,163									
2012	\$17,237,965	\$17,029,248	-\$208,717									
2013	\$17,237,965	\$17,466,579	\$228,614									
2014	\$17,237,965	\$17,567,439	\$329,474									
2015	\$22,327,777	\$23,067,891	\$740,114									
2016	\$27,664,598	\$27,774,545	\$109,947									
2017	\$27,661,060	\$27,840,992	\$179,932									
TOTAL	\$155,224,278	\$156,958,168	\$1,733,890									

As of December 31, 2017, Kentucky Power completed approximately 98% of Task 1 work since Task 1 work began in June 29, 2010. This compares to 83% of the Task 1 work completed as of December 31, 2016. Kentucky Power has since completed Task 1 work in all

three districts (approximately 9 months earlier than was projected in Rate Case 2014-00396). The completion dates of Task 1 by district were: Ashland – March 29, 2018, Hazard – March 29, 2018, and Pikeville – March 13, 2018.

As of December 31, 2017, Kentucky Power had completed 1,378 of the forecasted 1,418 miles, or approximately 97% of Task 2 work. Kentucky Power is on schedule to complete Task 2 work by December 31, 2018 or 6 months earlier than was projected in Rate Case 2014-00396.

Since the Company's Vegetation Management program began, Kentucky Power has trimmed 591,440 trees, cleared 16,649 acres of brush, sprayed 18,921 acres to control vegetation, and removed 1,970,121 trees.

### **Balancing Account**

Paragraph 8 (e)(ii) of the Settlement Agreement in Case No. 2014-00396 established a one-way balancing account beginning July 1, 2015. The account, reflects the Company's obligation to make \$27,661,060 in Vegetation Management O&M expenditures annually from July 1, 2015 through January 18, 2018.

Further detailed information through December 31, 2018 concerning the Balancing Account is presented in Table 9.

	Table 9: Kentucky Power Balancing Account												
			Ye	ar									
	Budgeted 2015 (6 Months)	Actual 2015	Budgeted 2016	Actual 2016	Budgeted 2017	Actual 2017	Total Budget	Total Actual	Variance				
VM Program Dollars	\$13,708,795	\$13,620,717	\$27,664,598	\$27,774,546	\$27,661,060	\$27,840,992	\$69,034,453	\$69,236,255	+ \$201,802				

Kentucky Power continues to track total Vegetation Management O&M expenditures and maintain the balancing account in accordance with the Commission's January 18, 2018 Order in Case No 2017-00179.

<sup>&</sup>lt;sup>7</sup> See footnote 1.

## **Attachment Description**

The following attachments are incorporated in this report:

<u>Attachment 1</u> – provides detailed summary of Task 1 work completed in 2017 at circuit level within the district.

<u>Attachment 2</u> – provides detailed summary of Task 2 work completed in 2017 at circuit level within the district.

Attachment 3 – provides updated Task 1 plan for 2018 at circuit level by district.

<u>Attachment 4</u> – provides updated Task 2 plan for 2018 at circuit level by district.

<u>Attachment 5</u> – provides updated Spray plan for 2018 at the district level.

<u>Attachment 6</u> – provides forestry terminology.

201	7 KY POWER FORESTRY Task 1 - Ashland		RY			Costs that were not allocated to a circuit include; internal labor & fleet costs, some un maintenance, trouble restoration work, tree ticket investigation, auditors expense, an field supervision.							
	Circuit data in BOLD repres	ent Full-Circuit Recleari	ng				<b>,</b>						
Circuit Number	Circuit Name	Cost (includes O&M and Capital)	Total Line Miles	Reclearing Miles Planned	Reclearing Miles Complete	Tree Trim	Tree Removal	Brush Cut (acres)	Brush Spray (acres)	Tree Growth Regulator	COMMENTS		
3000303	Bellefonte - Bellefonte	\$1,641,667.12	57.7	57.7	55.6	5,922	7,747	74.3	0.1		Begin Full Circuit Clearing - to complete in 2018		
3000601	Grahn - Distribution	\$511,042.03	45.3	45.3	45.3	1,582	7,330	107.0	0.0		Completed Full Circuit Clearing		
3000802	Hayward - Lawton	\$1,158,846.77	36.3	36.3	36.3	4,920	6,940	99.0	0.0		Completed Full Circuit Clearing		
3001001	Hitchens - Damron Branch	\$892,505.71	46.2	46.2	46.2	5,152	5,811	136.5	0.0		Completed Full Circuit Clearing		
3001002	Hitchens - Willard	\$948,082.02	152.0	98.3	111.0	4,093	10,468	281.4	0.0		Begin Full Circuit Clearing - to complete in 2018		
3001003	Hitchens - Grayson	\$449,821.37	48.4	25.6	25.6	1,960	4,738	14.8	0.0		Completed Full Circuit Clearing from 2016		
3001004	Hitchens - EK Road	\$59,777.82	31.4	31.4	2.0	119	656	2.6	0.0		Begin Full Circuit Clearing - to complete in 2018		
3001102	Hoods Creek - Rural	\$434,935.11	47.0	27.2	27.2	1,879	5,704	21.5	54.3		Completed Full Circuit Clearing from 2016		
3001204	Howard Collins - Summit	\$228,664.93	25.7	14.7	14.7	1,485	2,812	12.6	0.0		Completed Full Circuit Clearing from 2016		
3003702	Coalton - Cannonsburg	\$800,856.69	23.3	23.3	23.3	2,584	3,419	63.6	4.1		Completed Full Circuit Clearing		
3003703	Coalton - Trace Creek	\$1,332,254.46	82.5	82.5	82.5	5,149	14,155	116.5	0.0		Completed Full Circuit Clearing		
3007903	Busseyville - Louisa	\$226,510.65	44.0	44.0	44.0	1,046	2,904	54.6	0.0		Completed Full Circuit Clearing		
3007905	Busseyville - Mattie	\$221,208.38	91.0	8.0	8.0	1,346	3,622	30.0	0.0		Completed Full Circuit Clearing from 2016		
3103103	Olive Hill - W. Carter Elementa	\$979,517.19	38.0	38.0	38.0	4,063	14,854	44.9	0.0		Completed Full Circuit Clearing		
3117601	Belhaven - Diedrich	\$6,077.94	12.1	0.0	0.2	3	1	0.0	0.0		Completed Full Circuit Clearing		
3116702	Belhaven - Indian Run	\$3,918.21	19.5	0.0	0.0	0	0	0.0	0.0		Quality of Service Work		
3002107	10th Street - West Central	\$203.10	15.6	0.0	0.0	3	1	0.0	0.0		Quality of Service Work		
3003701	Coalton - US 60 W	\$737.14	87.5	0.0	0.0	0	1	0.0	0.0		Capital Work		
3117601	Princess - Meade Station	\$597.60	46.8	0.0	0.0	0	3	0.0	0.0		Quality of Service Work		
3000801	Hayward - Halderman	\$247.86	118.7	0.0	0.0	1	0	0.0	0.0		Quality of Service Work		
3001401	Louisa - City	\$1,072.52	10.0	0.0	0.0	0	2	0.0	0.0		Quality of Service Work		
	ASHLAND DISTRICT Totals	\$9,898,544.62		578.5	559.9	41,307	91,168	1,059.3	58.5	0.0			

201	7 KY POWER FORESTRY Task 1 - Hazard		RY		_	Costs that were not allocated to a circuit include; internal labor & fleet costs, some unscheduled he maintenance, trouble restoration work, tree ticket investigation, auditor expense, and tree contractive field supervision.							
	Circuit data in BOLD repres	ent Full-Circuit Recleari	ng				note deportation						
Circuit Number	Circuit Name	Cost (includes O&M and Capital)	Total Line Miles	Reclearing Miles Planned	Reclearing Miles Complete	Tree Trim	Tree Removal	Brush Cut (acres)	Brush Spray (acres)	Tree Growth Regulator	COMMENTS		
3301101	Chavies - Chavies	\$686,464.18	69.1	51.8	51.8	1,944	17,329	110.5	0.1		Completed Full Circuit Clearing from 2016		
3309001	Jeff - Boone Ledge	\$83,713.64	5.0	5.0	5.0	220	1,574	9.7	0.0		Completed Full Circuit Clearing		
309302	Vicco - Jeff	\$630,705.54	84.7	36.6	36.6	3,459	11,009	111.0	24.9		Completed Full Circuit Clearing from 2016		
309902	Slemp - Leatherwood	\$395,316.34	71.3	21.6	21.6	1,349	7,471	76.8	312.4		Completed Full Circuit Clearing from 2016		
310501	Haddix - Quicksand	\$1,503,605.20	116.0	57.9	58.8	4,588	29,746	191.4	148.6		Continued Full Circuit Clearing		
310502	Haddix - Canoe	\$984,630.42	125.0	65.7	65.7	2,880	17,297	154.1	105.0		Completed Full Circuit Clearing from 2016		
310503	Haddix - Troublesome	\$0.00	0.0	45.0	41.5	0	0	0.0	0.0		Begin Full Circuit Clearing (New Circuit - Split)		
300601	Bluegrass - Walkertown	\$743.30	29.0	0.0	0.0	0	0	0.0	1.1		Ground Spray		
300602	Bluegrass - Hazard	\$887.38	11.4	0.0	0.0	7	0	0.0	0.0		Quality of Service Work		
3301701	Daisy - Leatherwood	\$106,672.33	88.0	0.0	0.0	4	303	0.0	158.1		Capital Work and Ground Spray		
302701	Hazard - Black Gold	\$1,820.40	55.0	0.0	0.0	0	1	0.0	0.0		Quality of Service Work		
302703	Hazard - Hazard	\$3,015.00	11.2	0.0	0.0	0	4	0.0	0.0		Capital Work		
302704	Hazard - Kenmont	\$2,629.10	20.0	0.0	0.0	9	18	0.0	0.0		Capital Work		
303901	Leslie - Hyden	\$1,800.60	87.0	0.0	0.0	0	11	0.0	0.0		Capital Work		
303902	Leslie - Wooton	\$3,250.40	134.0	0.0	0.0	0	5	0.0	0.4		Capital Work		
303903	Leslie - Hals Fork	\$471.19	76.0	0.0	0.0	0	0	0.0	0.9		Ground Spray		
307301	Bulan - Ary-Heiner	\$7,161.65	54.0	0.0	0.0	0	11	0.0	16.7		Capital Work and Ground Spray		
307302	Bulan - Ajax-Dwarf	\$4,198.38	40.0	0.0	0.0	0	7	0.0	0.0		Capital Work		
308001	Jackson - South Jackson	\$1,756.70	26.0	0.0	0.0	3	7	0.0	1.0		Quality of Service Work		
308002	Jackson - Panbowl	\$1,087.50	31.6	0.0	0.0	0	0	0.0	1.5		Quality of Service Work		
308502	Bonnyman - Hazard	\$2,566.45	43.4	0.0	0.0	0	0	0.0	5.2		Quality of Service Work		
308603	Collier - Smoot Creek	\$3,209.60	81.0	0.0	0.0	0	61	0.0	0.0		Capital Work		
309002	Jeff - Jeff	\$1,560.75	5.7	0.0	0.0	0	0	0.0	0.0		Capital Work Planning		
309003	Jeff - Viper	\$1,277.10	43.5	0.0	0.0	0	8	0.0	0.0		Capital Work		
309102	Whitesburg - Hospital	\$675.68	8.0	0.0	0.0	0	36	0.3	0.0		Quality of Service Work		
309104	Whitesburg - Crafts Colley	\$3,990.95	28.0	0.0	0.0	0	48	0.0	0.0		Capital Work		
309301	Vicco - Red Fox	\$2,551.13	48.5	0.0	0.0	0	15	0.0	4.3		Quality of Service Work and Ground Spray		
309901	Slemp - Defeated Cr.	\$27,065.00	13.4	0.0	0.0	0	0	0.0	47.0		Ground Spray		
311701	Shamrock - Shamrock	\$572.90	54.0	0.0	0.0	0	0	0.0	0.6		Quality of Service Work		
312202	Engle - Grapevine 34.5	\$6,898.06	101.2	0.0	0.0	3	39	0.2	2.7		Quality of Service Work and Ground Spray		
401301	Fleming - Neon	\$23,217.97	21.0	0.0	0.0	181	368	1.9	0.0		Quality of Service Work		
401302	Fleming - McRoberts	\$3,578.00	30.2	0.0	0.0	0	1	0.0	0.0		Capital Work		
420001	Softshell - Vest	\$34,538.13	59.0	0.0	0.0	0	18	0.0	69.0		Capital Work and Ground Spray		
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	HAZARD DISTRICT Totals	\$4,531,630.97		283.6	281.0	14,647	85.387	655.9	899.6	0.0			

201	7 KY POWER FORESTRY Task 1 - Pikeville	District				Costs that were not allocated to a circuit include; internal labor & fleet costs, some unscheduled hots maintenance, trouble restoration work, tree ticket investigation, auditor expense, and tree contracto field supervision.							
Circuit umber	Circuit data in BOLD repres	Cost (includes O&M and Capital)	Total Line Miles	Reclearing Miles Planned	Reclearing Miles Complete	Tree Trim	Tree Removal	Brush Cut (acres)	Brush Spray (acres)	Tree Growth Regulator	COMMENTS		
150502	Borderland - Chattaroy	\$103,262.11	10.0	10.0	4.7	185	871	6.4	0.0	J	Begin Full Circuit Clearing - to Complete in 2018		
00201	Barrenshe - Freeburn	\$209,391.73	13.0	13.0	13.0	386	1742	10.9	0.0		Completed Full Circuit Clearing		
00203	Barrenshe - Slate Branch	\$9,594.85	5.6	5.6	5.6	11	103	1.2	0.0		Completed Full Circuit Clearing		
00301	Belfry - Belfry	\$32,658.63	17.4	12.9	0.1	21	192	0.4	0.0		Begin Full Circuit Clearing - to Complete in 2018		
200302	Belfry - Toler	\$609,712.33	29.0	29.0	27.0	2430	10588	54.7	0.1		Begin Full Circuit Clearing - to Complete in 2018		
201002	Tom Watkins - Distribution	\$271,668.73	28.8	5.8	5.8	997	3335	11.0	0.0		Completed Full Circuit Clearing from 2016		
100303	Betsy Layne - Harold	\$736,787.23	48.0	11.6	44.0	1666	9132	91.4	0.0		Begin Full Circuit Clearing - to Complete in 2018		
100902	Breaks - Grassy	\$30,027.82	4.0	1.8	1.0	8	270	6.5	0.0		Continued Full Circuit Clearing		
101702	Henry Clay - Regina	\$1,581,439.68	112.6	87.1	87.1	4061	16409	192.7	5.8		Completed Full Circuit Clearing from 2016		
101801	Index - Distribution	\$26,098.74	54.1	1.3	1.3	61	218	1.2	0.0		Completed Full Circuit Clearing from 2016		
101802	Index - Hospital	\$316,119.68	19.0	19.0	19.0	612	3313	27.8	0.0		Completed Full Circuit Clearing		
102001	Keyser - Thompson Road	\$30,820.59	16.6	16.6	0.7	72	301	2.3	0.0		Begin Full Circuit Clearing - to Complete in 2018		
102002	Keyser - Stonecoal	\$409,360.43	37.3	33.3	20.0	918	4754	50.4	0.0		Begin Full Circuit Clearing - to Complete in 2018		
103701	Russell Fork - Little Beaver	\$361,944.80	14.0	14.0	14.0	468	4984	46.7	0.0		Completed Full Circuit Clearing		
103801	Second Fork - Distribution	\$182,162.14	7.0	7.0	7.0	55	3871	43.5	0.0		Completed Full Circuit Clearing		
104301	Sidney - Big Creek	\$654,997.98	25.1	25.1	25.1	2439	11400	35.9	0.0		Completed Full Circuit Clearing		
108402	Kimper - Grapevine	\$746,844.92	35.4	35.4	20.0	1401	8171	80.2	0.0		Begin Full Circuit Clearing - to Complete in 2018		
109001	West Paintsville - Paintsville	\$53,294.21	3.4	3.4	3.4	218	733	5.4	0.0		Completed Full Circuit Clearing		
409003	West Paintsville - Plaza	\$172,652.42	24.0	24.0	24.0	566	2664	33.0	0.0		Completed Full Circuit Clearing		
410501	South Pikeville - Pikeville	\$192,374.91	10.0	10.0	10.0	377	2092	15.3	0.0		Completed Full Circuit Clearing		
413402	Garrett - Lackey	\$133,414.73	34.7	9.1	9.1	490	2282	14.9	0.0		Completed Full Circuit Clearing from 2016		
414501	Consol - Coal Company	\$15,302.01	4.6	1.0	1.0	36	307	3.3	0.0		Completed Full Circuit Clearing from 2016		
417602	New Camp - ARH	\$523,797.94	22.0	22.0	22.0	1232	3546	17.1	0.0		Completed Full Circuit Clearing		
420101	Mayo Trail - Nippa	\$416,196.05	22.5	22.5	22.5	948	5202	35.4	0.0		Completed Full Circuit Clearing		
420102	Mayo Trail - Euclid	\$171,531.39	19.6	19.6	19.6	757	2199	23.9	0.0		Completed Full Circuit Clearing		
420103	Mayo Trail - Davis Branch	\$211,620.15	33.1	14.1	14.1	704	1996	29.6	0.0		Completed Full Circuit Clearing from 2016		
150105	Sprigg - Matewan	\$0.00	8.0	8.0	0.0	0	0	0.0	0.0		Full Circuit Clearing deferred to 2018		
200202	Barrenshe - Vulcan - A	\$3,112.12	48.6	0.0	0.0	40	21	0.1	0.0		Quality of Service Work		
200204	Barrenshe - Pounding Mill	\$1,595.12	16.0	0.0	0.0	0	9	0.0	0.0		Capital Work		
202202	Lovely - Wolf Creek	\$23,017.82	58.7	0.0	0.0	0	0	0.0	0.0		Work Planning for Spray		
202203	Lovely - Mt. Sterling	\$3,616.37	12.6	0.0	0.0	0	0	0.0	0.0		Work Planning for Spray		
400101	Allen - Distribution	\$3,333.77	27.8	0.0	0.0	10	5	0.1	0.0		Quality of Service Work		
400302	Betsy Layne - Tram	\$48,368.38	35.0	0.0	0.0	0	0	0.0	56.9		Ground Spray		
400601	Burton - Bevinsville	\$8,718.70	19.0	0.0	0.0	0	0	0.0	0.0		Work Planning for Spray		
400602	Burton - Wheelwright	\$6,330.11	21.0	0.0	0.0	0	0	0.0	0.0		Work Planning for Spray		
401103	Falcon - Burning Fork	\$4,171.49	71.7	0.0	0.0	0	1	0.0	10.5		Capital Work and Ground Spray		
401703	Henry Clay - Ashcamp	\$115,384.01	43.0	0.0	0.0	0	0	0.0	140.9		Ground Spray		
402003	Keyser - Mullins	\$4,692.80	29.6	0.0	0.0	13	5	0.0	0.0		Quality of Service Work		
402202	McKinney - Gibson	\$90,708.02	46.1	0.0	0.0	0	3	0.0	119.7		Capital Work and Ground Spray		
403001	Pikeville - City	\$38,514.29	20.0	0.0	0.0	0	0	0.0	35.1		Ground Spray		
403002	Pikeville - Main Street	\$5,681.50	6.4	0.0	0.0	0	12	0.0	0.0		Capital Work		
403003	Pikeville - Cedar Creek	\$48,282.78	28.0	0.0	0.0	0	2	0.0	50.1		Capital Work and Ground Spray		
403201	Beaver Creek - Ligon	\$4,367.23	80.0	0.0	0.0	0	82	1.2	0.0		Quality of Service Work		
103202	Beaver Creek - Price	\$38,011.65	21.0	0.0	0.0	0	0	0.0	39.2		Ground Spray		
103301	Prestonsburg - City	\$13,105.14	6.7	0.0	0.0	0	0	0.0	23.6		Ground Spray		
107101	Topmost - Dema	\$1,400.96	37.0	0.0	0.0	0	2	0.0	0.0		Capital Work		
108103	Salisbury - Martin	\$4,602.80	46.0	0.0	0.0	0	2	0.0	0.0		Capital Work		
108304	Coleman - Calloway	\$42,110.06	36.0	0.0	0.0	0	0	7.7	73.0		Ground Spray		
109002	W. Paintsville - Staffordsville	\$2,366,60	21.0	0.0	0.0	1	1	0.0	0.0		Capital Work		
109301	Kenwood - W Van Lear	\$2,306.70	19.0	0.0	0.0	2	0	0.0	0.0		Quality of Service Work		
109302	Kenwood - Auxier	\$15,441.61	40.2	0.0	0.0	0	0	0.0	5.0		Ground Spray		
109401	Feds Creek - Feds Creek	\$1,712.76	41.0	0.0	0.0	0	10	0.0	0.0		Capital Work		
109402	Feds Creek - Lick Creek	\$829.50	17.0	0.0	0.0	0	5	0.0	0.0		Quality of Service Work		
09502	Burdine - Levisa Stone	\$994.90	39.4	0.0	0.0	0	2	0.0	0.0		Capital Work		
10601	E. Prestonsburg - Prestonsburg	\$7,444.27	7.1	0.0	0.0	0	0	0.0	11.5		Ground Spray		
10602	E. Prestonsburg - Lancer	\$7, <del>444</del> .27 \$55,012.97	25.0	0.0	0.0	0	0	0.0	94.2				
111401	Dewey - Inez - A	\$55,012.97	173.5	0.0	0.0	0	0	0.0	482.9		Ground Spray		
											Ground Spray		
111801	Johns Creek - Meta	\$92,228.51	167.0	0.0	0.0	0	4	0.0	0.0		Capital Work and Aerial Saw		
111802	Johns Creek - Raccoon	\$171,185.55	84.8	0.0	0.0	3	127	0.3	208.6		Ground Spray and Quality of Service Work		
411901	Fords Branch - Shelby	\$33,436.50	42.4	0.0	0.0	0	3	0.0	0.0		Capital Work and Work Planning		
12901	Weeksbury - Distribution	\$3,179.30	29.0	0.0	0.0	0	0	0.0	0.0		Work Planning for Spray		

KY POWER Task 1 Totals	\$23,788,541.24	1,324.3	1,262.0	77,142.0	277,526.0	2,565.6	2,315.4	0.0

3000701 Gray 3001202 How 3008001 47th 3008702 Canr 3103101 Olive 3110903 Wurt 3116703 Belh 3301101 Chan 3301402 Com 3308402 Beck 3308402 Beck 3308402 Beck 3308401 Beck 3308401 Beck 3311101 Stinr 3311102 Stinr 3311102 Stinr 3311103 Stirr 3311101 Reec 3311201 Jenk	Ashland District -  Circuit Name  g Sandy - Fallsburg South aysbranch - Graysbranch oward Collins - 29th Street th Street - 49th Street annonsburg - Route 3 we Hill - Globe urtland - Rt. 503 whaven - Argillite  SHLAND DISTRICT Totals Hazard District - tavies - Chavies ombs - Airport Gardens weicham - Hindman wickham - Carr Creek omryman - Big Creek hillier - Lower Rockhouse hitesburg - Whitesburg	Cost (includes O&M and Capital)  \$16,160.50 \$335,168.15 \$251,762.43 \$4,216.28 \$331,048.55 \$23,621.72 \$313,572.49 \$148,134.56	1014 Line Miles 161.1 68.8 13.4 26.0 100.0 120.7 46.0 28.0 69.1 42.9 102.0 111.0 84.0	Miles Planned  0.0  28.0  13.4  0.0  30.0  3.0  28.0  15.0  117.4  7.5  3.9  57.1  0.0	Reclearing Miles Complete 0.0 28.0 13.4 0.0 15.2 3.0 28.0 15.0 102.6	Tree Trim  0 1,902 1,439 5 1,676 164 2,324 420 7,930  172 288 1,354	Tree Removal  0 592 402 4 509 87 1,099 860  3,553	Brush Cut (acres) 0.0 22.5 4.0 0.0 15.9 1.0 22.9 12.2 78.5	Brush Spray (acres) 0.0 0.0 1.1 0.0 0.3 0.0 0.0 1.4	Tree Growth Regulat or	COMMENTS  Interim Re-clear Work Planning - work deferred to 201  Completed Interim Re-clear - from 2016  Completed Interim Re-clear - from 2018  Begin Interim Re-clear - deferred to 2018  Begin Interim Re-clear - to be completed in 2018  Completed Interim Re-clear - from 2016  Completed Interim Re-clear - from 2016  Completed Interim Re-clear - from 2016
3000201 Big \$ 3000701 Gray \$ 3000701 Gray \$ 30001202 How \$ 30001202 Cann \$ 3008001 47th \$ 3008702 Cann \$ 3110903 Wurth \$ 3116703 Belh \$ 3301101 Chax \$ 3301402 Com \$ 3308401 Beck \$ 3308602 Collina \$ 3311101 Collina \$ 3311102 Collina \$ 331102 Collina \$ 3311102 Colli	aysbranch - Graysbranch oward Collins - 29th Street th Street - 49th Street annonsburg - Route 3 we Hill - Globe urdand - Rt. 503 whaven - Argillite  SHLAND DISTRICT Totals  Hazard District - havies - Chavies ombs - Airport Gardens ockham - Hindman ockham - Carr Creek onnyman - Big Creek ullier - Lower Rockhouse	\$16,160.50 \$335,168.15 \$251,762.43 \$4,216.28 \$331,048.55 \$23,621.72 \$313,572.49 \$148,134.56  \$1,423,684.68  Task 2 \$79,024.04 \$69,856.50 \$648,250.95 \$6,468.82 \$150,981.23	161.1 68.8 13.4 26.0 100.0 120.7 46.0 28.0 69.1 42.9 102.0 111.0 84.0	0.0 28.0 13.4 0.0 30.0 3.0 28.0 15.0 117.4	0.0 28.0 13.4 0.0 15.2 3.0 28.0 15.0 102.6	0 1,902 1,439 5 1,676 164 2,324 420 7,930	0 592 402 4 509 87 1,099 860	0.0 22.5 4.0 0.0 15.9 1.0 22.9 12.2 78.5	0.0 0.0 1.1 0.0 0.3 0.0 0.0 0.0	or	Completed Interim Re-clear - from 2016 Completed Interim Re-clear - Interim Re-clear - deferred to 2018 Begin Interim Re-clear - to be completed in 2018 Completed Interim Re-clear - from 2016 Completed Interim Re-clear - from 2016 Completed Interim Re-clear - from 2016
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3001202 Howwas 1 Howas	ward Collins - 29th Street th Street - 49th Street annonsburg - Route 3 we Hill - Globe urtland - Rt. 503 #haven - Argillite  #HAZARD DISTRICT Totals  HAZARD DISTRICT Totals  #HAZARD DISTRICT TOTA	\$251,762.43 \$4,216.28 \$331,048.55 \$23,621.72 \$313,572.49 \$148,134.56  \$1,423,684.68  Task 2 \$79,024.04 \$69,856.50 \$648,250.95 \$6,468.82 \$150,981.23	13.4 26.0 100.0 120.7 46.0 28.0 69.1 42.9 102.0 111.0	13.4 0.0 30.0 3.0 28.0 15.0 117.4 7.5 3.9 57.1 0.0	13.4 0.0 15.2 3.0 28.0 15.0 102.6	1,439 5 1,676 164 2,324 420 <b>7,930</b>	402 4 509 87 1,099 860 3,553	4.0 0.0 15.9 1.0 22.9 12.2 78.5	1.1 0.0 0.3 0.0 0.0 0.0	0	Completed Interim Re-clear Interim Re-clear - deferred to 2018 Begin Interim Re-clear - to be completed in 2018 Completed Interim Re-clear - from 2016 Completed Interim Re-clear - from 2016 Completed Interim Re-clear - from 2016
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3103101 Olive 3110903 Wurti 3116703 Belhi 33116703 Belhi 3301101 Chav 3301402 Com 3308401 Beck 3308602 Collid 3308602 Collid 3308602 Collid 3301101 Stinr 3311102 Stinr 3311103 Stinr 3311101 Reco	ve Hill - Globe urtland - Rt. 503 Uhaven - Argillite SHLAND DISTRICT Totals Hazard District - vavies - Chavies ombs - Airport Gardens sekham - Hindman sekham - Carr Creek omnyman - Big Creek	\$23,621.72 \$313,572.49 \$148,134.56 \$1,423,684.68 Task 2 \$79,024.04 \$69,856.50 \$648,250.95 \$6,468.82 \$150,981.23	69.1 42.9 102.0 84.0	3.0 28.0 15.0 117.4 7.5 3.9 57.1	3.0 28.0 15.0 102.6	164 2,324 420 <b>7,930</b> 172 288	87 1,099 860 3,553	1.0 22.9 12.2 <b>78.5</b>	0.0 0.0 0.0	0	Completed Interim Re-clear - from 2016 Completed Interim Re-clear - from 2016 Completed Interim Re-clear - from 2016
3301101 Chav 3301402 Com 3308401 Beck 3308602 Beck 3308503 Bonr 3308602 Colli 3308602 Colli 3308602 Colli 3311101 Stinr 3311102 Stinr 3311103 Stinr 3311401 Reco	urtland - Rt. 503  SHLAND DISTRICT Totals  Hazard District  havies - Chavies  ombs - Airport Gardens  sekham - Hindman  sckham - Carr Creek  omnyman - Big Creek  Jilier - Lower Rockhouse	\$313,572.49 \$148,134.56 \$1,423,684.68 Task 2 \$79,024.04 \$69,856.50 \$648,250.95 \$6,468.82 \$150,981.23	46.0 28.0 69.1 42.9 102.0 111.0 84.0	28.0 15.0 117.4 7.5 3.9 57.1 0.0	28.0 15.0 102.6 7.5 3.9	2,324 420 <b>7,930</b> 172 288	1,099 860 3,553	22.9 12.2 <b>78.5</b> 35.0	0.0	0	Completed Interim Re-clear - from 2016 Completed Interim Re-clear - from 2016
3301101 Chavas 3301402 Com 3308401 Beck 3308602 Collina 3309101 White 3311102 Stinr 3311102 Stinr 3311103 Stinr 3311401 Reec 3312901 Jenk	SHLAND DISTRICT Totals  Hazard District - havies - Chavies bribs - Airport Gardens brickham - Hindman brickham - Carr Creek brinyman - Big Creek blier - Lower Rockhouse	\$148,134.56 \$1,423,684.68 Task 2 \$79,024.04 \$69,856.50 \$648,250.95 \$6,468.82 \$150,981.23	69.1 42.9 102.0 111.0 84.0	7.5 3.9 57.1	15.0 102.6 7.5 3.9	7,930 172 288	3,553 2,320	78.5 35.0	0.0	0	Completed Interim Re-clear - from 2016
3301101 Chav 3301402 Com 3308401 Beck 3308503 Bonr 3308602 Collid 3309101 White 3311101 Stinr 3311102 Stinr 3311103 Stinr 3311401 Reed 3312901 Jenk	Hazard District - havies - Chavies bribs - Airport Gardens bribs - Airport Gardens bribkam - Hindman bribkham - Carr Creek bribyman - Big Creek blier - Lower Rockhouse	\$1,423,684.68  Task 2  \$79,024.04  \$69,856.50  \$648,250.95  \$6,468.82  \$150,981.23	69.1 42.9 102.0 111.0 84.0	7.5 3.9 57.1	7.5 3.9	<b>7,930</b> 172 288	<b>3,553</b> 2,320	<b>78.5</b> 35.0	1.4	0	
3301101 Chav 3301402 Com 3308401 Beck 3308603 Bonr 3308602 Colli 3309101 White 3311101 Stinr 3311102 Stinr 3311103 Stinr 3311104 Reed 3312901 Jenk	Hazard District - havies - Chavies havies - Chavies havies - Airport Gardens ckham - Hindman ckham - Carr Creek honnyman - Big Creek hollier - Lower Rockhouse	Task 2 \$79,024.04 \$69,856.50 \$648,250.95 \$6,468.82 \$150,981.23	42.9 102.0 111.0 84.0	7.5 3.9 57.1 0.0	7.5 3.9	172 288	2,320	35.0		0	
3301101 Chav 3301402 Com 3308401 Beck 3308603 Bonr 3308602 Colli 3309101 White 3311101 Stinr 3311102 Stinr 3311103 Stinr 3311104 Reed 3312901 Jenk	Hazard District - havies - Chavies havies - Chavies havies - Airport Gardens ckham - Hindman ckham - Carr Creek honnyman - Big Creek hollier - Lower Rockhouse	Task 2 \$79,024.04 \$69,856.50 \$648,250.95 \$6,468.82 \$150,981.23	42.9 102.0 111.0 84.0	7.5 3.9 57.1 0.0	7.5 3.9	172 288	2,320	35.0		0	
3301402 Com 3308401 Beck 3308402 Beck 3308503 Bonr 3308602 Collii 3309101 White 3311102 Stinr 3311103 Stinr 3311401 Reed 3312901 Jenk	navies - Chavies ombs - Airport Gardens sekham - Hindman sckham - Carr Creek onnyman - Big Creek	\$79,024.04 \$69,856.50 \$648,250.95 \$6,468.82 \$150,981.23	42.9 102.0 111.0 84.0	3.9 57.1 0.0	3.9	288	-		0.0		O constant describe Describes from 2010
3301402 Com 3308401 Beck 3308402 Beck 3308503 Bonr 3308602 Collii 3309101 White 3311102 Stinr 3311103 Stinr 3311401 Reed 3312901 Jenk	ombs - Airport Gardens ckham - Hindman ckham - Carr Creek onnyman - Big Creek Ullier - Lower Rockhouse	\$69,856.50 \$648,250.95 \$6,468.82 \$150,981.23	42.9 102.0 111.0 84.0	3.9 57.1 0.0	3.9	288	-		0.0		0 to to the to the Broad and the control of th
3308401 Beck 3308402 Beck 3308503 Bonr 3308602 Collin 3309101 White 3311101 Stinr 3311102 Stinr 3311103 Stinr 3311401 Reec 3312901 Jenk	eckham - Hindman eckham - Carr Creek ennyman - Big Creek ellier - Lower Rockhouse	\$648,250.95 \$6,468.82 \$150,981.23	102.0 111.0 84.0	57.1 0.0			580				Completed Interim Re-clear - from 2016
3308402 Beck 3308503 Bonr 3308602 Colli- 3309101 White 3311101 Stinr 3311102 Stinr 3311103 Stinr 3311401 Reec 3312901 Jenk	eckham - Carr Creek ennyman - Big Creek ollier - Lower Rockhouse	\$6,468.82 \$150,981.23	111.0 84.0	0.0	53.1	1,354		6.0	0.0		Completed Interim Re-clear - from 2016
3308503 Bonr 3308602 Collidad 3309101 White 3311101 Stinr 3311102 Stinr 3311103 Stinr 3311401 Reec 3312901 Jenk	onnyman - Big Creek ollier - Lower Rockhouse	\$150,981.23	84.0				7,767	123.4	2.3		Continued Interim Re-clear - to be completed in 2018
3308602 Collie 3309101 White 3311101 Stinn 3311102 Stinn 3311103 Stinn 3311401 Reed 3312901 Jenk	ollier - Lower Rockhouse				0.2	1	42	0.2	0.0		Begin Interim Re-clear - to be completed in 2018
3309101 White 3311101 Stinn 3311102 Stinn 3311103 Stinn 3311401 Reed 3312901 Jenk		\$207,319.68		15.0	12.6	737	2,800	24.6	0.0		Begin Interim Re-clear - to be completed in 2018
3311101 Stinr 3311102 Stinr 3311103 Stinr 3311401 Reec 3312901 Jenk	hitesburg - Whitesburg		66.1	20.0	20.6	765	2,740	36.0	0.0		Begin Interim Re-clear - to be completed in 2018
3311102 Stinn 3311103 Stinn 3311401 Reed 3312901 Jenk		\$79,185.01	10.0	10.0	10.0	394	737	9.2	0.0		Completed Interim Re-clear
3311103 Stinn 3311401 Reed 3312901 Jenk	innett - Redbird	\$379,371.21	121.0	30.0	30.0	2,011	4,744	85.9	0.2		Completed Interim Re-clear - from 2016
3311401 Reed 3312901 Jenk	innett - Beech Fork	\$3,029.92	10.0	0.0	0.0	0	0	0.0	0.0		Work Planning
3312901 Jenk	innett - Wendover	\$5,017.07	36.3	0.0	0.0	18	53	0.7	0.0		Begin Interim Re-clear - to be completed in 2018
	edy - Deane	\$131,647.91	43.2	11.5	11.5	676	1,605	25.7	0.0		Completed Interim Re-clear from 2016
3314401 Mayl	nkins - Kona	\$1,157,547.90	26.0	26.0	26.0	3,462	4,722	33.2	0.0		Completed Interim Re-clear
	ayking - Ermine	\$3,819.15	28.8	0.0	0.0	0	8	0.0	0.0		Capital removals following Re-clear
3314402 May	ayking - Millstone	\$3,363.36	55.0	0.0	0.0	0	5	0.0	0.0		Capital removals following Re-clear
3409503 Burd	rdine - Jenkins	\$48,383.50	8.2	0.0	1.0	111	74	1.0	0.0		Begin Interim Re-clear - to be completed in 2018
HA	AZARD DISTRICT Totals	\$2,973,266.25		181.0	176.4	9,989	28,197	380.9	2.4	0	
	Pikeville District -	Task 2		1							
2970603 Hurle	ırley - Racefork	\$15,783.85	6.0	0.0	0.0	50	158	2.9	0.0		Begin Interim Re-clear - to be completed in 2018
3202201 Love	vely - Lovely - A	\$4,451.15	41.0	0.0	0.0	0	11	0.4	0.0		Capital Removals following Re-clear
3308402 Beck	eckham - Carr Creek	\$69,466.17	7.0	0.0	2.5	193	188	2.8	0.0		Begin Interim Re-clear - to be completed in 2018
3401001 Elwo	wood - Dorton	\$286,210.24	43.3	8.3	8.3	1,576	1287	8.8	0.0		Completed Interim Re-clear - from 2016
3409303 Kenv	enwood - Hagerhill	\$161,670.10	51.0	2.0	2.0	932	524	2.2	0.0		Completed Interim Re-clear - from 2016
3411902 Ford	rds Branch - Robinson Ck	\$109,935.48	77.7	0.0	0.0	0	0	0.0	153.2		Interim Ground Spray
3414901 Fisht	shtrap - Distribution	\$56,130.80	4.4	4.4	4.4	4	787	26.5	0.0		Completed Interim Re-clear
	<u>'</u>										
PIKE	KEVILLE DISTRICT Totals	\$703,647.79		14.7	17.2	2,755	2,955	43.5	153.2	0	

2018 Kentucky Power Updated Distribution VM Plan Task1 Full-Circuit Clearing Plan						unsch	eduled hotsp	ernal labor & fleet costs, ration work, tree ticket tors' field supervision.		
District	Station Name	Circuit Name	Circuit Number	Circuit Line Miles	Miles Planned	Projected O&M Cost per Mile	O&M	Forestry Capital Associated with Re-clearing	Total Cost	Comments
ASH	Bellefonte	Bellefonte	3000303	57.7	2.1	\$17,500	\$36,750	\$4,410	\$41,160	Finish Full-Circuit Clearing
ASH	Hitchens	Willard	3001002	152.0	41.0	\$14,000	\$574,000	\$40,180	\$614,180	Finish Full-Circuit Clearing
ASH	Hitchens	EK Road	3001004	31.4	29.4	\$16,300	\$479,220	\$33,545	\$512,765	Finish Full-Circuit Clearing
ASH	Bellhaven	Diedrich	3116702	12.1	0.2	\$17,500	\$3,500	\$245	\$3,745	Finish Full-Circuit Clearing
	Ashland I	District (Task1) Tot	als		72.7		\$1,093,470	\$78,380	\$1,171,850	
HAZ	Haddix	Quicksand	3310501	116.0	57.2	\$10,200	\$583,440	\$40,841	\$624,281	Finish Full-Circuit Clearing
HAZ	Haddix	Troublesome	3310503	97.0	3.5	\$10,200	\$35,700	\$2,499	\$38,199	Finish Full-Circuit Clearing
	Hazard District (Task 1) Totals						\$619,140	\$43,340	\$662,480	
PKV	Sprigg	Matewan	2150105	8.0	8.0	\$11,200	\$89,600	\$6,272	\$95,872	Finish Full-Circuit Clearing
PKV	Borderland	Chattaroy	3150502	10.2	5.5	\$11,200	\$61,600	\$4,312	\$65,912	Finish Full-Circuit Clearing
PKV	Belfry	Belfry	3200301	17.4	12.9	\$11,700	\$150,930	\$10,565	\$161,495	Finish Full-Circuit Clearing
PKV	Belfry	Toler	3200302	29.0	2.1	\$11,700	\$24,570	\$1,720	\$26,290	Finish Full-Circuit Clearing
PKV	Betsy Layne	Harold	3400303	48.0	4.0	\$11,700	\$46,800	\$3,276	\$50,076	Finish Full-Circuit Clearing
PKV	Elkhorn City	Grassy	3400902	4.0	0.8	\$11,200	\$8,960	\$627	\$9,587	Finish Full-Circuit Clearing
PKV	Keyser	Thompson Rd	3402001	16.6	15.9	\$11,700	\$186,030	\$13,022	\$199,052	Finish Full-Circuit Clearing
PKV	Keyser	Stonecoal	3402002	37.3	17.1	\$11,700	\$200,070	\$14,005	\$214,075	Finish Full-Circuit Clearing
PKV	Kimper	Grapevine	3408402	35.4	15.8	\$11,700	\$184,860	\$12,940	\$197,800	Finish Full-Circuit Clearing
	Pikeville I		82.1		\$953,420	\$66,739	\$1,020,159			
										-
	Full - Circuit	Clearing (Task 1)		215.5		\$2,666,030	\$188,460	\$2,854,490		

	-	ower Update					ntenance, tro		ork, tree ticke	labor & fleet costs, unscheduled t investigation, auditor expense vision.
District	Station Name	Circuit Name	Circuit Number	Circuit Line Miles	Miles Planned	Projected O&M Cost per Mile	O&M	Forestry Capital Associated with Re-clearing	Total Cost	Comments
ASH	Big Sandy	Fallsburg South	3000201	96.6	57.0	\$12,300	\$701,100	\$49,077	\$750,177	Finish Interim Reclear
ASH	Hayward	Halderman	3000801	118.7	76.0	\$12,300	\$934,800	\$65,436	\$1,000,236	Begin Interim Reclear
ASH	Hoods Creek	Summitt	3001101	22.5	22.5	\$11,000	\$247,500	\$17,325	\$264,825	Interim Reclear
ASH	Busseyville	Walbridge	3007906	95.1	83.1	\$12,000	\$997,200	\$69,804	\$1,067,004	Begin Interim Reclear
ASH	47th Street	49th Street	3008001	25.4	25.4	\$11,000	\$279,400	\$19,558	\$298,958	Interim Reclear
ASH	Cannonsburg	Route 3	3008702	98.5	83.3	\$12,150	\$1,012,095	\$70,847	\$1,082,942	Finish Interim Reclear
ASH	Russell	Kenwood	3010601	20.2	20.2	\$12,300	\$248,460	\$17,392	\$265,852	Interim Reclear
ASH	Wurtland	Wurtland	3110901	1.5	1.5	\$12,300	\$18,450	\$1,292	\$19,742	Interim Reclear
ASH	Wurtland	Greenup	3110902	51.2	51.2	\$12,300	\$629,760	\$44,083	\$673,843	Interim Reclear
	Ash	land District (Tasl	k 2) Totals		420.2		\$5,068,765	\$354,814	\$5,423,579	<u> </u>
HAZ	Daisy	Leatherwood	3301701	88.4	21.4	\$9,500	\$203,300	\$14,231	\$217,531	Begin Interim Reclear
HAZ	Hazard	Kenmont	3302704	19.8	19.8	\$9,500	\$188,100	\$13,167	\$201,267	Interim Reclear
HAZ	Leslie	Halsfork	3303903	76.6	76.6	\$9,700	\$743,020	\$52,011	\$795,031	Interim Reclear
HAZ	Bulan	Ary Hiner	3307301	52.7	52.7	\$9,700	\$511,190	\$35,783	\$546,973	Interim Reclear
HAZ	Bulan	Ajax Dwarf	3307302	40.5	40.5	\$9,700	\$392,850	\$27,500	\$420,350	Interim Reclear
HAZ	Bulan	Lotts Creek	3307303	2.2	2.2	\$6,000	\$13,200	\$924	\$14,124	Interim Reclear
HAZ	Beckham	Hindman	3308401	102.6	25.4	\$9,700	\$246,380	\$17,247	\$263,627	Finish Interim Reclear
HAZ	Beckham	Carr Creek	3308402	51.6	51.4	\$9,700	\$498,580	\$34,901	\$533,481	Finish Interim Reclear
HAZ	Beckham	Pippa Passes	3308403	63.4	23.9	\$17,500	\$418,250	\$29,278	\$447,528	Begin Interim Reclear-Incl.Raven
HAZ	Bonnyman	Hazard	3308502	65.5	30.5	\$9,700	\$295,850	\$20,710	\$316,560	Begin Interim Reclear
HAZ	Bonnyman	Big Creek	3308503	87.4	74.8	\$9,700	\$725,560	\$50,789	\$776,349	Finish Interim Reclear
HAZ	Whitesburg	Hospital	3309102	8.7	8.7	\$9,700	\$84,390	\$5,907	\$90,297	Interim Reclear
HAZ	Collier	Lower Rockhous	3308602	62.8	42.2	\$9,700	\$409,340	\$28,654	\$437,994	Finish Interim Reclear
HAZ	Stinnett	Wendover	3311103	36.7	36.7	\$9,700	\$355,990	\$24,919	\$380,909	Interim Reclear
HAZ	Jenkins	Jenkins	3312902	22.6	22.6	\$9,700	\$219,220	\$15,345	\$234,565	Interim Reclear
HAZ	Burdine	Jenkins	3409503	8.2	7.2	\$17,500	\$126,000	\$8,820	\$134,820	Finish Interim Reclear
HAZ	Beefhide	Dunham	3451202	8.7	8.7	\$9,700	\$84,390	\$5,907	\$90,297	Interim Reclear
	Haza	rd District (Tasl	k 2) Totals		545.3		\$5,515,610	\$386,093	\$5,901,703	
PKV	Sprigg	Sprigg	2150103	9.0	9.0	\$8,000	\$72,000	\$5,040	\$77,040	Interim Reclear
PKV	Borderland	Nolan	2150501	18.5	18.5	\$8,000	\$148,000	\$10,360	\$158,360	Interim Reclear
PKV	Middle Burnii	Naugatuck	2153502	1.0	1.0	\$4,000	\$4,000	\$280	\$4,280	Interim Reclear
PKV	Hurley	Race Fork	2970603	4.3	4.3	\$8,500	\$36,550	\$2,559	\$39,109	Interim Reclear
PKV	Belfry	Belfry	3200301	17.5	4.6	\$9,000	\$41,400	\$2,898	\$44,298	Finish Interim Section
PKV	Lovely	Mt. Sterling	3202203	13.1	13.1	\$8,500	\$111,350	\$7,795	\$119,145	Interim Reclear
PKV	Betsy Layne	Mud Creek	3400301	77.5	77.5	\$10,100	\$782,750	\$54,793	\$837,543	Interim Reclear
PKV	Burton	Bevinsville	3400601	19.6	19.6	\$10,100	\$197,960	\$13,857	\$211,817	Interim Reclear
PKV	Burton	Wheelwright	3400602	20.8	20.8	\$10,100	\$210,080	\$14,706	\$224,786	Interim Reclear
PKV	Draffin	Belcher	3400701	21.4	21.4	\$10,100	\$216,140	\$15,130	\$231,270	Interim Reclear
PKV	Draffin	Yellow Hill	3400702	11.8	11.8	\$10,100	\$119,180	\$8,343	\$127,523	Interim Reclear
	Salisbury	Printer	3408101	19.6	19.6	\$8,700	\$170,520	\$11,936	\$182,456	Interim Reclear
PKV	Salisbury	Black Diamond	3408102	1.5	1.5	\$8,600	\$12,900	\$903	\$13,803	Interim Reclear
PKV	Salisbury	Martin	3408103	46.7	46.7	\$8,500	\$396,950	\$27,787	\$424,737	Interim Re-clear
PKV	Burdine	Levisa	3409502	39.9	39.9	\$10,100	\$402,990	\$28,209	\$431,199	Interim Reclear
PKV	South Pikevill		3410502 3410503	38.5	38.5	\$9,900	\$381,150	\$26,681	\$407,831	Interim Reclear
PKV	South Pikevill Johns Creek	Meta Meta	3410503 3411801	5.7 167.0	5.7 30.0	\$8,500 \$9,900	\$48,450 \$297,000	\$3,392 \$20,790	\$51,842 \$317,790	Interim Reclear  Begin Interim Reclear
PKV		Shelby	3411901	40.5	40.5	\$10,300	\$417,150	\$29,201	\$446,351	Interim Reclear
	Fords Branch		3411902	69.9	69.9	\$10,300	\$719,970	\$50,398	\$770,368	Interim Reclear
PKV	Weeksbury	Distribution	3412901	26.5	26.5	\$10,300	\$272,950	\$19,107	\$292,057	Interim Reclear
PKV	New Camp	Southside	3417601	10.1	10.1	\$8,500	\$85,850	\$6,010	\$91,860	Interim Reclear
	Pikev	ille District (Tas	k 2) Totals	3	530.5		\$5,145,290	\$360,170	\$5,505,460	
ı	Interior D	e-Clear (Task 2)	Totals		1496.0		\$15,729,665	\$1,101,077	\$16,830,742	Ī

Filed in Conformity with the Commission's
January 18, 2018 Order in Case No. 2017-00179
Filed April 2, 2018
Attachment 5
2018 Updated Spray Plan
Page 1 of 1

2018 Distribution Vegetation  Management Spray Plan							
DISTRICT	ACRES	O&M BUDGET					
Ashland	825	\$447,450					
Hazard	1000	\$538,000					
Pikeville	1000	\$552,600					
Aerial Spray	100	\$100,000					
TOTAL	2925	\$1,638,050					

Filed in Conformity with the Commission's
January 18, 2018 Order in Case No. 2017-00179
Filed April 2, 2018
Attachment 6
Forestry Terminology
Page 1 of 1

# **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.

# 2<sup>nd</sup> 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.