



**Kansas City Power & Light Company
2014 Reliability Performance Report**

Annual reporting completed pursuant to 4 CSR 240-23.010

April 30, 2015

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4 CSR 240.23.010 (1)(A), (B), (C), (D), and (3) – Reliability Statistics 2014

Table 1: 2014 KCP&L Reliability Indices

Total Customers (Meter Counts)		278,406
Adjusted	SAIFI	0.898
	SAIDI	91.82
	CAIDI	102.30
	CAIFI	1.19
Unadjusted	SAIFI	1.158
	SAIDI	156.12
	CAIDI	134.84
	CAIFI	1.19

June 4, June 15, July 7, August 6, and August 31 are excluded from the KCP&L adjusted 2014 statistics per IEEE 1366 in conjunction with storm begin and end dates.

4 CSR 240-23.010 (6), (7) – Highest 5% SAIFI Circuits Assessment

Patrols and repairs were completed in the 3rd and 4th Quarters 2014. For circuits where an analysis is being completed, a systematic patrol plan is developed based on identified outage causes and, when and where feasible, repairs are made during the initial patrol. Tree patrols were performed and, where indicated, spot trimming was completed. Other maintenance, modifications or upgrades not completed during the initial patrol will be completed by the 2nd Quarter 2015. Additionally, Engineering performed root cause analysis on recurring problems and issued corrective action jobs scheduled for completion during 3rd Quarter 2015. Table 2 lists circuits identified as having the highest 5% of adjusted SAIFI statistics in 2014, as set forth in 4 CSR 240.23.010 (6).

Table 2: Highest 5% SAIFI Circuits

Centers	Circuits	Substation	Action Plan	SAIFI	SAIDI
DOD	7541	75	Repaired overhead conductors, Replaced overhead connectors and switchgear	6.36	247.51
FM	7404	74	Replaced line arresters and jumpers, Repaired overhead conductors, replaced poles and crossarms	5.62	302.54
FM	7491	74	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Replaced poles, Installed fuse mounts	4.74	314.83
DOD	4841	48	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Replaced poles, Installed fuse mounts, Replaced and installed new line arresters	3.67	454.12
DOD	3544	35	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Replaced poles, Installed fuse mounts, Replaced and installed new line arresters	3.60	650.26
EDST	5912	59	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Replaced poles, Installed fuse mounts, Replaced and installed new line arresters	3.16	1,013.48
DOD	3114	31	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Replaced poles, Installed fuse mounts, Replaced and installed new line arresters	3.04	502.49
NLND	2713	27	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Replaced poles, Installed fuse mounts, Replaced and installed new line arresters	2.81	123.95
DOD	6111	61	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Replaced poles, Installed fuse mounts, Replaced and installed new line arresters	2.74	277.07
DOD	6151	61	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Replaced poles, Installed fuse mounts, Replaced and installed new line arresters	2.72	130.71
DOD	5614	56	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Replaced poles, Installed fuse mounts, Replaced and installed new line arresters	2.60	328.71
NLND	5263	52	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Replaced poles, Installed fuse mounts, Replaced and installed new line arresters	2.57	399.53

Centers	Circuits	Substation	Action Plan	SAIFI	SAIDI
FM	9613	96	Replaced and install new line arresters, Repaired overhead conductors	2.50	539.50
FM	9621	96	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Replaced poles, Installed fuse mounts, Replaced and installed new line arresters	2.44	403.67
DOD	4812	48	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Installed fuse mounts, Replaced and installed new line arresters	2.41	332.43
FM	5382	53	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Installed fuse mounts, Replaced and installed new line arresters	2.40	718.54
FM	7492	74	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Installed fuse mounts, Replaced and installed new line arresters	2.32	168.87
DOD	6123	61	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Installed fuse mounts, Replaced and installed new line arresters	2.31	179.55
DOD	6162	61	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Installed fuse mounts, Replaced and installed new line arresters	2.29	128.91
FM	1562	15	Replaced line arresters and jumpers, Repaired overhead conductors, replaced poles and crossarms	2.26	313.41
FM	5381	53	Replaced line arresters and jumpers, Repaired overhead conductors, replaced poles and crossarms	2.26	182.08
DOD	3513	35	Trimmed trees, Varmint proof equipment, Repaired overhead conductors, Installed fuse mounts, Replaced and installed new line arresters	2.25	321.18
DOD	7573	75	Trimmed trees, Varmint proof equipment, Repaired overhead conductors and connectors, Replaced and installed new line arresters	2.20	217.98

June 4, June 15, July 7, August 6, and August 31 are excluded from the KCP&L adjusted 2014 statistics per IEEE 1366 in conjunction with storm begin and end dates.

4 CSR 240-23.010 (8) – Multi-Year Worst Performing Circuit Reporting

The referenced rule requires the plan and a schedule to lower SAIFI metrics on circuits that are listed on the highest 5% SAIFI list for two out of three of the preceding years. Table 3 reflects the action plans implemented and completed in 2014 to lower the SAIFI metric for these circuits. Additional patrols and root-cause analysis, where required, will be completed in 3rd Quarter 2015.

Table 3: Multi-Year Worst Performing Circuit Report

Year	Centers	Circuits	Substation	Action Plan	SAIFI	SAIDI
2012 2013	FM	7491	74	Scheduled plan is to trim trees, varmint proof equipment, repair overhead conductors, replace poles, and replace fuse mounts.	4.74	314.83
2013 2014	FM	7491	74	Scheduled plan is to trim trees, varmint proof equipment, repair overhead conductors, installed fuse mounts, replace and install additional new line arresters.	2.32	168.87
2012 2013 2014	EDST	5912	59	Scheduled plan is to trim trees, varmint proof equipment, repair overhead conductors, replace poles, replace fuse mounts, replace and installed additional new line arresters, and relocate existing recloser.	3.16	1,013.48
2013 2014	DOD	6151	61	Scheduled plan is to trim trees, varmint proof equipment, repair overhead conductors, replace poles, replace fuse mounts, and replace and install new line arresters.	2.72	130.71
2012 2013 2014	FM	5381	53	Scheduled plan is to install additional line arresters and jumpers, repair overhead conductors, replace poles and crossarms.	2.26	182.08
2012 2013	DOD	3134	31	Results from previous year replacements and repairs were regulator burnt up and replaced, relocated 3 phase recloser, repaired sagging conductor; Storm\Weather related; Patrolled and made repairs.	0.60	79.95
2012 2013	F&M	7931	79	Results from previous year replacement and repairs were to install new line arresters and replaced several bad switches.	1.38	252.71

Year	Centers	Circuits	Substation	Action Plan	SAIFI	SAIDI
2012 2014	NLND	5263	52	Scheduled plan is to trim trees, varmint proof equipment, repair overhead conductors, replace poles, install fuse mounts, replace and install additional new line arresters.	2.57	399.53