



**KCP&L Greater Missouri Operations Company  
2011 Reliability Performance Report**

Annual reporting completed pursuant to 4 CSR 240-23.010 *et seq.*

April 30, 2012

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#### **4 CSR 240.23.010 (1), (2), (3), (4), (5) – Reliability Statistics 2011**

Table 1: KCP&L Greater Missouri Operations Co.  
Reliability Indices

2011		MPS	SJLP	GMO
Total Customers (Meter Counts)		246,140	64,917	311,057
Adjusted	SAIFI	0.80	0.83	.80
	SAIDI	83.6	76.7	82.1
	CAIDI	104.5	92.4	102.6
	CAIFI	1.6	1.2	1.3
Unadjusted	SAIFI	1.3	2.1	1.5
	SAIDI	340.7	694.7	414.6
	CAIDI	262.0	330.8	276.4
		1.8	1.5	1.7

Event days excluded from the KCP&L-GMO adjusted 2011 statistics:

April 3-4; May 25; June 18-21, 25-27; July 12-13; August 3, 7-8; 18-22, 2011

#### **4 CSR 240.23.010 (6), (7) – Highest 5% SAIFI Circuits Assessment**

Table 2 lists circuits identified as having the highest 5% of adjusted SAIFI statistics in 2011, as set forth in 4 CSR 240.23.010 (6). Patrols and repairs are scheduled for completion by the 3<sup>rd</sup> Quarter 2012. Circuits where an analysis is being completed, a systematic patrol plan is developed based on identified outage causes and, when and where feasible, repairs made during the initial patrol. Tree patrols were performed and spot trimming completed. Other maintenance, modifications or upgrades not completed during the initial patrol will be completed by the 2<sup>nd</sup> Quarter 2012. Additionally, engineering will perform root cause analysis on recurrent problems and issue corrective action jobs to be completed by the end of 2012.

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<b>Center</b>	<b>Circuit ID</b>	<b>2010 &amp; 2011 Reports Substation - Circuit ID</b>	<b>Substations</b>	<b>Action Plan</b>	<b>SAIFI</b>	<b>SAIDI</b>
Nevada	10011	101-501	Hume	Replace equipment, pole top hardware and poles	5.57	1,297.11
Maryville/Mound City	40782	506-MV20	Maryville	Trim trees and replace pole top hardware	5.24	486.05
St. Joseph	42711	586-SV92	Savannah	Trim trees and replace pole top hardware	4.87	798.02
Belton	25411	302-501	Harrisonville West	Replace pole top hardware, equipment repairs and arresters	4.76	724.53
Trenton	21611	066-501	Blythedale/Eagleville	Replace arresters, pole top hardware, and trim trees	3.91	811.03
Blue Springs	32511	680-502	Prairie Lee	Equipment overloads replacement, arresters and varmint guards	3.84	488.95
Liberty	29021	474-584	Liberty	Pole top hardware, varmint guards, arresters, and tree trimming	3.71	378.73
Warrensburg	26111	324-501	Hwy 13 &40 Jct	Replace pole top hardware and arresters	3.68	511.22
Henrietta	33312	722-504	Richard Gebaur	Lightning arresters, varmint guards and pole top hardware	3.64	176.74
St. Joseph	39173	501-13	Edmond Street	Replace pole top hardware and trim trees	3.51	263.23
Liberty	25312	291-505	Hallmark	Replace pole top hardware, wire, and trim trees	3.47	373.68
Maryville/Mound City	247511	506-MV31	Maryville 161	Replace pole top hardware and trim trees	3.44	543.74
Blue Springs	25211	295-502	Harris Road	Pole top hardware, varmint guards and tree trimming	2.98	183.71

<b>Center</b>	<b>Circuit ID</b>	<b>2010 &amp; 2011 Reports Substation - Circuit ID</b>	<b>Substations</b>	<b>Action Plan</b>	<b>SAIFI</b>	<b>SAIDI</b>
St. Joseph	41641	556-OK25	Oak Street	Trim trees, varmint guard and pole top hardware, and wire	2.94	158.24
Lees Summit	28311	426-5505	Longview	Varmint guards and tree trimming	2.83	140.93
Blue Springs	35112	820-502	Sibley 161	Trim trees and replace pole top hardware	2.74	321.29
Blue Springs	32513	680-504	Prairie Lee	Varmint guards and replace equipment	2.71	258.11
Platte City	31911	658-502	Platte City	Replace equipment, pole top hardware and poles	2.68	222.48
Maryville/Mound City	41521	615-ND122	Nodaway	Replace arresters, pole top hardware, and trim trees	2.63	292.00
Belton	24813	276-502	Grandview	Failed equipment replacement, pole top hardware, arresters	2.60	300.06
Blue Springs	31111	589-5506	Oak Grove	Varmint guards, arrester replacement	2.54	597.79

Event days excluded from the KCP&L-GMO adjusted 2011 statistics:  
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#### **4 CSR 240-23.010 (8) – Multi-Year Worst Performing Circuit Reporting**

The referenced rule requires the plan and 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. Circuits 31911 and 31912 have met this reporting requirement. Table 3 reflects the work plan and schedule to lower the SAIFI metric for these circuits. The work plan is 90% completed there is still work to be done with installing the controls for the automated reclosers and continued studies being performed on the laterals.

<u>Table 3: Planned Work and Schedules for Circuits 31911 and 31912</u>		Scheduled Start Date
1	Install Equipment: S&C Tripsaver Dropout Reclosers added to overhead laterals with recurring interruptions in Platte City.	Completed Jan 2011
2	Install Equipment: Varmint proofing for Main St. west of 2 <sup>nd</sup> St. customers.	Completed Jan 2011
3	Balance Loads and Reduce Feeder Exposure: Transfer approximately 11MW from Circuit 503 (31912) to Circuit 502 (31911).	Completed June 2011
4	Install Automation: Two 34kV Cooper Nova automated reclosers will allow remote switch to toggle Weston loads between 31912 and 31911.	Reclosers installed but not automated and controlled by our OMS June 2011
5	Continue analysis of recurring interruptions on laterals.	In-Progress June 2011
6	Install Automation: Two automated fault indicators to assist operations to quickly identify OCR lockouts of two laterals feeding City of Weston.	Completed July 2011
7	Review potential conductor issues on line segment north of existing OCR 501 to Weston at First St. & Hwy 371. (266 Aluminum Conductor—Steel Reinforced Cable 93% capacity at peak.)	Study not completed Oct 2011
8	Install Equipment: Upgrade 219 Amp voltage regulator south of Hwy 371 on First St. in anticipation of new loadings of 255Amps.	Study completed and determined not needed Oct 2011