

circuit name	voltage	origin substation	destination substation	Maximum Circuit Rating Current (A)	line length (miles)
980	345kv	coon creek sub	kohlman lake sub	537	20.08
984s	345kv	coon creek sub	terminal sub	823	13.73
0871s	115kv	riverside sub	moore lake sub	222	7
0871n	115kv	moore lake sub	coon creek sub	587	4.44
803	115kv	riverside sub	apache sub	1270	3.5
992	345kv	coon creek sub	bunker lake	393	6.73
0984n	345kv	coon creek sub	sherburne co sub	613	43.52
804	115kv	riverside sub	twin lakes sub	913	5.44
5505	115kv	riverside sub	coon creek sub	1745	11.7
809	115kv	twin lakes sub	coon creek sub	2000	8.97
870	115kv	riverside sub	fifth street substation	2000	3.2
5501	115kv	riverside sub	elliott park substation	2000	4.5
810	115kv	riverside sub	main street sub	2000	3.7

GRE	230kv	bunker lake	blaine		
GRE	69kv	parkwood	johnsville		

substation	Phase to phase voltage	ground grid impedance	Maximum single phase to ground fault	X/R ratio	R (ohms)	X (ohms)
coon creek	345kv	0.1440	8655.46	7.9088	0.51435	6.67083
coon creek	115kv	0.1440	16422.8	10.95	0.09001	1.29152
riverside	115kv	0.2	15493	9.7697	0.11271	1.3545
moore lake	115kv	0.2010	4899.15	5.1267	0.27282	2.90589
twin lakes	115kv	0.3910	5821.48	5.5296	0.2911	2.68354
kohlman lake	345kv	0.1190	7650.07	8.1049	0.64735	7.60173
terminal	345kv	0.09	6987.49	8.0914	0.70308	8.40955
apache	115kv	0.0590	7537.1	5.4848	0.22862	2.16464
sherburne co	345kv	0.0350	11295.7	12.504	0.32967	5.6942
bunker lake	345kv	GRE Substation	6031.9	7.0974	0.69594	8.8709
fifth street	115kv	N.A.	11470	7.0753	0.1703	1.70557
main street	115kv	0.0520	12749.5	6.8283	0.13347	1.46353