4220

(4220)
05-GF-113

Xcel Energy

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April 30, 2002

Ms. Lynda L. Dorr
Secretary of the Commission
Public Service Commission of Wisconsin
610 North Whitney Way
P.O. Box 7854
Madison, WI 53703-7854

Re: Filing Requirement per Wis. Admin. Code Ch. PSC 113.0604 4220-GF-100

Dear Ms. Dorr:

On August 1, 2000, Wis. Admin Code Ch. PSC 113 – Service Rules for Electric Utilities took effect. The revised PSC 113 contains a number of filing requirements including PSC 113.0604, which requires each utility to file an Annual Report containing various reliability, maintenance and performance data by May 1 of each year.

Pursuant to Wis. Admin. Code Ch. PSC 113.0604, attached is the Annual Report for Northern States Power Company – Wisconsin (NSP-W), d/b/a Xcel Energy. Please contact me at 608.280.7301, or at brian.r.zelenak@xcelenergy.com if you have any questions.

Respectfully submitted,

Brian R. Zelenak

Brian R. Zelenak
Manager, Regulatory Policy

enc.

c: J. Loock
Internal

MFC

Annual Report

of
Northern States Power Company – Wisconsin
d/b/a
Xcel Energy

Compliance Filing for
Wisconsin Administrative Code
ch. PSC 113.0604

May 1, 2002

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TAB 1

Overall Assessment of SAIFI SAIDI and CAIDI by Operating Area

Overall Assessment of SAIFI, SAIDI, and CAIDI by Operating Area

PSC 113.0604 (2) (a)

Attached is the overall assessment of SAIFI, SAIDI and CAID by operating area for the Wisconsin jurisdiction ranked from highest to lowest by each criteria.

Xcel Energy Contact :

Name	Phone	Email
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TAB 1.1

SAIFI

SAIFI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIFI
RTL022	63	WI	918	6155	1052361	6.70
RTL021	63	WI	1035	6475	1312772	6.26
MRC022	63	WI	1510	9219	1938680	6.11
SUP021	63	WI	149	873	256438	5.86
MRC021	63	WI	98	537	102255	5.48
CSH022	67	WI	442	1957	324509	4.43
PSI021	63	WI	1256	5244	1796638	4.18
TWN021	63	WI	693	2834	246679	4.09
SXF021	63	WI	204	824	161954	4.04
BYF021	62	WI	2185	8629	1697765	3.95
TWN022	63	WI	676	2566	181858	3.80
CVA022	67	WI	371	1337	169511	3.60
WHR021	62	WI	152	542	44008	3.57
LAX077	68	WI	739	2345	36015	3.17
MCO021	63	WI	397	1237	154711	3.12
NSI001	63	WI	631	1915	121014	3.03
BKD021	62	WI	290	835	143362	2.88
HYD032	65	WI	2546	6984	656329	2.74
CVA021	67	WI	660	1791	186143	2.71
GLM021	64	WI	475	1276	148509	2.69
LAX076	68	WI	1158	3022	102929	2.61
EGP211	65	WI	1157	2967	209782	2.56
WDM081	61	WI	743	1879	250630	2.53
WIB569	65	WI	1271	3187	332885	2.51
BLD021	63	WI	629	1571	334178	2.50
RSH081	60	WI	2135	5196	456042	2.43
FEN073	68	WI	954	2198	116131	2.30
KIN081	60	WI	448	1011	77761	2.26
IHD021	63	WI	322	721	74975	2.24
SCF024	60	WI	223	496	43755	2.22
BES021	63	WI	1063	2353	212806	2.21
CPM022	67	WI	5	11	891	2.20
CEF081	66	WI	815	1791	126599	2.20
CSH021	67	WI	122	264	41420	2.16
VIR061	67	WI	1316	2786	234153	2.12
LAX065	68	WI	948	1975	32133	2.08
RID082	61	WI	734	1524	240866	2.08
ALC021	67	WI	394	807	124367	2.05
CNR001	63	WI	3	6	1065	2.00
HGN021	63	WI	6	12	2130	2.00
JKS021	63	WI	4	8	1420	2.00
LUP001	63	WI	3	6	861	2.00
TLA001	63	WI	1	2	355	2.00
LAX074	68	WI	637	1267	9020	1.99
RID081	61	WI	536	1051	167827	1.96
WHR023	62	WI	243	464	100300	1.91
SPR021	66	WI	748	1401	103387	1.87
HYD031	65	WI	55	103	4157	1.87

SAIFI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIFI
VIR003	67	WI	894	1582	151820	1.77
CAB022	61	WI	289	498	81081	1.72
HER001	62	WI	142	221	37689	1.56
GAL021	67	WI	1254	1942	256993	1.55
RSH091	66	WI	946	1433	114957	1.51
RSH092	60	WI	305	425	34841	1.39
OSC022	60	WI	701	969	55731	1.38
RCD024	66	WI	121	165	2206	1.36
HWD022	61	WI	668	885	97240	1.32
OTC021	65	WI	513	677	28675	1.32
RIC081	60	WI	2030	2665	293896	1.31
TAD021	61	WI	334	438	43183	1.31
ALC022	67	WI	222	291	126900	1.31
WND081	66	WI	271	354	31616	1.31
SND021	61	WI	2517	3275	507480	1.30
ELS032	65	WI	1176	1514	59953	1.29
TRL081	61	WI	828	1052	219922	1.27
ELS027	65	WI	2104	2635	304894	1.25
MEN022	66	WI	1542	1889	56784	1.23
CON021	61	WI	314	384	40713	1.22
HAL063	65	WI	1479	1791	72810	1.21
HAL062	65	WI	1615	1942	76520	1.20
HAL072	65	WI	1144	1375	78093	1.20
LOY022	64	WI	749	886	122466	1.18
YLR082	61	WI	1080	1270	66203	1.18
EGA021	66	WI	117	137	13893	1.17
BEA414	60	WI	837	979	25533	1.17
CPM023	67	WI	6	7	1040	1.17
BLA023	67	WI	555	633	75964	1.14
OSC021	60	WI	1256	1432	67273	1.14
BLA022	67	WI	15	17	4080	1.13
AUG022	65	WI	694	786	156522	1.13
BLA021	67	WI	673	761	89454	1.13
SCF025	60	WI	967	1091	51122	1.13
EGA022	66	WI	348	389	44731	1.12
ELL021	60	WI	1032	1148	240692	1.11
WSM091	67	WI	1976	2198	116668	1.11
WTL061	61	WI	1292	1436	91530	1.11
BES022	63	WI	1082	1194	127164	1.10
SLD021	61	WI	281	309	53194	1.10
NLV032	64	WI	538	590	57213	1.10
FIN022	61	WI	1927	2068	204236	1.07
SWC071	68	WI	254	269	17647	1.06
LYN022	64	WI	415	439	25093	1.06
NRA001	63	WI	469	491	47162	1.05
NLV031	64	WI	584	608	60675	1.04
CAD061	65	WI	51	53	7562	1.04
GVA021	67	WI	313	325	16473	1.04

SAIFI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIFI
MLS021	67	WI	515	530	55664	1.03
TRX021	65	WI	979	1006	85723	1.03
ELL022	60	WI	310	318	70218	1.03
CHF031	65	WI	434	444	31967	1.02
OTC023	65	WI	1370	1395	13839	1.02
VIR002	67	WI	496	501	37350	1.01
CRN001	62	WI	118	119	7956	1.01
NLV021	64	WI	987	990	104044	1.00
ELS024	65	WI	97	97	9991	1.00
GEN198	68	WI	271	271	64387	1.00
MEY021	63	WI	3	3	294	1.00
MSE021	62	WI	29	29	4611	1.00
OSC031	60	WI	17	17	714	1.00
FAY001	62	WI	258	252	22322	0.98
RSK021	66	WI	669	639	82119	0.96
CAB021	61	WI	420	395	35802	0.94
LKC081	60	WI	1246	1106	162147	0.89
NFO031	62	WI	1317	1164	100024	0.88
MER021	67	WI	762	631	156107	0.83
PRE021	60	WI	1280	992	167336	0.78
MDR021	66	WI	149	113	12794	0.76
MNR021	62	WI	95	72	5494	0.76
MNR022	62	WI	110	79	5562	0.72
WLR081	60	WI	654	468	35908	0.72
TCN091	64	WI	947	657	99991	0.69
ELM021	66	WI	220	148	16047	0.67
MEN032	66	WI	1774	1171	134318	0.66
JIM021	65	WI	355	205	30498	0.58
BFT061	62	WI	576	325	67376	0.56
BAY021	60	WI	800	450	65849	0.56
CHF022	65	WI	1670	927	64132	0.56
GST021	60	WI	403	223	15865	0.55
MNT001	63	WI	822	451	55020	0.55
FEN062	68	WI	486	264	33349	0.54
RCL031	61	WI	1362	729	66397	0.54
CPM026	67	WI	403	215	40309	0.53
WHR022	62	WI	225	116	6922	0.52
SPA032	67	WI	1783	887	345194	0.50
OLU021	62	WI	94	46	2269	0.49
TWT081	60	WI	1116	541	31040	0.48
CPM024	67	WI	396	191	29912	0.48
MAF072	68	WI	653	311	25506	0.48
ONA061	68	WI	2244	1068	77676	0.48
MEN021	66	WI	878	404	52546	0.46
NFO021	62	WI	1057	475	39446	0.45
MAD062	65	WI	929	400	71623	0.43
WDB001	63	WI	7	3	554	0.43
CTS021	64	WI	722	303	61623	0.42

SAIFI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIFI
WBN022	62	WI	444	186	99232	0.42
OTC031	65	WI	1709	705	41757	0.41
RIC082	60	WI	22	9	1305	0.41
TRP021	64	WI	505	204	32616	0.40
CAT021	67	WI	483	195	41649	0.40
STM022	65	WI	994	376	53413	0.38
OWN021	64	WI	1236	463	48773	0.37
HAY082	66	WI	1702	637	64835	0.37
COC021	66	WI	399	143	11560	0.36
BFT062	62	WI	631	223	8484	0.35
DUR022	66	WI	1019	357	39279	0.35
SPE021	64	WI	1014	354	50609	0.35
TRX022	65	WI	746	257	9867	0.34
HAF001	67	WI	108	36	10732	0.33
LPA001	62	WI	3	1	88	0.33
YLR081	61	WI	3	1	12	0.33
HUR022	63	WI	862	275	74067	0.32
COU079	68	WI	547	169	16099	0.31
STM021	65	WI	522	160	10041	0.31
HWD021	61	WI	539	161	20297	0.30
CHF024	65	WI	1365	406	27047	0.30
HAL073	65	WI	409	121	5948	0.30
LOY021	64	WI	960	284	28281	0.30
RCL021	61	WI	51	15	810	0.29
CLL081	60	WI	496	138	12182	0.28
LAX062	68	WI	1840	509	36746	0.28
LON062	65	WI	467	129	24560	0.28
LAX067	68	WI	790	218	45058	0.28
MAD071	65	WI	729	194	27823	0.27
TRX032	65	WI	1804	470	46117	0.26
RCD023	66	WI	888	230	22873	0.26
STA081	64	WI	282	73	6456	0.26
SWC072	68	WI	1180	301	20201	0.26
PEP021	66	WI	898	226	29990	0.25
FEN061	68	WI	1183	296	26163	0.25
LAX075	68	WI	1600	398	57720	0.25
BYD001	64	WI	314	78	11429	0.25
PHL031	62	WI	1000	248	22573	0.25
TRX031	65	WI	77	19	956	0.25
SHW021	65	WI	262	63	2859	0.24
BIR021	61	WI	925	217	22767	0.23
HLA062	68	WI	1426	334	26446	0.23
CMR021	61	WI	1082	251	32568	0.23
SPA022	67	WI	1432	332	36553	0.23
AYR022	63	WI	882	200	14821	0.23
RKL021	67	WI	725	160	21986	0.22
PRN021	62	WI	775	170	18698	0.22
DRM021	61	WI	192	42	1836	0.22

SAIFI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIFI
COU077	68	WI	1776	385	75259	0.22
PTW001	62	WI	310	67	11183	0.22
IRW003	63	WI	531	114	8525	0.21
MAF071	68	WI	1064	227	24796	0.21
RVW021	65	WI	81	17	2499	0.21
ELS021	65	WI	424	87	13500	0.21
BNT021	62	WI	471	94	13785	0.20
COU078	68	WI	1207	237	19180	0.20
COU062	68	WI	1373	265	44350	0.19
COU069	68	WI	471	89	17300	0.19
COU068	68	WI	1876	348	45977	0.19
CPM034	67	WI	49	9	1413	0.18
HLA071	68	WI	1211	215	11357	0.18
COU061	68	WI	1561	271	28666	0.17
FEN072	68	WI	848	145	10500	0.17
USR533	65	WI	6	1	177	0.17
CPM033	67	WI	393	64	11364	0.16
WBN021	62	WI	837	134	29768	0.16
LUK021	60	WI	1022	158	14596	0.15
COU071	68	WI	1302	197	29041	0.15
GST023	60	WI	569	85	7353	0.15
GRV021	62	WI	105	15	1183	0.14
LON071	65	WI	653	92	31380	0.14
CHF023	65	WI	877	122	8203	0.14
CPM025	67	WI	225	31	5039	0.14
ELS031	65	WI	743	102	13488	0.14
CPM032	67	WI	618	84	13058	0.14
OGE021	62	WI	171	23	1623	0.13
LYN021	64	WI	255	34	3897	0.13
WLR082	60	WI	2232	296	18142	0.13
ONA062	68	WI	937	124	15410	0.13
BEA415	60	WI	381	48	5703	0.13
MAF063	68	WI	1544	192	6053	0.12
JEF211	65	WI	97	12	919	0.12
MAD072	65	WI	2114	260	13507	0.12
POK061	61	WI	789	93	10126	0.12
SPA021	67	WI	461	54	945	0.12
MEN023	66	WI	343	39	4530	0.11
WSM092	67	WI	1092	124	7177	0.11
LON072	65	WI	702	79	9680	0.11
SST061	62	WI	541	59	6004	0.11
OTC032	65	WI	1454	158	12130	0.11
WLR092	60	WI	3759	407	70059	0.11
ELS033	65	WI	1490	156	21799	0.10
STA083	64	WI	562	58	8056	0.10
TRP022	64	WI	911	94	9669	0.10
WSM081	67	WI	1239	126	14193	0.10
SVN001	62	WI	293	28	1265	0.10

SAIFI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIFI
WTL062	61	WI	1113	105	11706	0.09
SST062	62	WI	586	53	7329	0.09
TRX033	65	WI	366	32	2618	0.09
AUG021	65	WI	318	27	2123	0.08
WHH023	67	WI	752	61	11252	0.08
BIR022	61	WI	572	46	9814	0.08
OPY081	61	WI	611	49	4992	0.08
PRE022	60	WI	629	50	5581	0.08
OTC022	65	WI	1579	122	8102	0.08
LAX063	68	WI	1480	114	5200	0.08
TRL082	61	WI	352	27	1799	0.08
CTA021	62	WI	314	24	1806	0.08
GEN197	68	WI	762	55	10877	0.07
ELM022	66	WI	589	42	4622	0.07
IRW005	63	WI	315	22	1953	0.07
WHH022	67	WI	563	39	2823	0.07
SPA031	67	WI	1560	107	10114	0.07
NAP022	65	WI	1417	96	7896	0.07
SOE001	62	WI	507	34	3854	0.07
LON061	65	WI	1299	86	11765	0.07
NEL021	66	WI	245	16	1322	0.07
HWK021	61	WI	226	14	1043	0.06
CPM035	67	WI	99	6	942	0.06
NAP021	65	WI	516	31	3219	0.06
MAD061	65	WI	315	18	1022	0.06
TCN081	64	WI	2062	117	5027	0.06
TRE021	67	WI	18	1	336	0.06
WLR091	60	WI	2487	138	10402	0.06
AYR021	63	WI	813	44	4091	0.05
GLA021	63	WI	75	4	330	0.05
HAY081	66	WI	647	34	2641	0.05
POK062	61	WI	876	45	6447	0.05
HUR021	63	WI	374	19	1428	0.05
DUR021	66	WI	480	24	1093	0.05
MLN001	62	WI	596	24	1808	0.04
EGP212	65	WI	284	11	945	0.04
ALM559	66	WI	505	19	4180	0.04
TST001	62	WI	300	10	954	0.03
CLL082	60	WI	405	11	624	0.03
GDN021	62	WI	421	11	898	0.03
FLC097	65	WI	609	14	2726	0.02
CUM081	60	WI	222	5	551	0.02
STA082	64	WI	719	16	514	0.02
CHF021	65	WI	640	14	574	0.02
ELK001	65	WI	416	9	767	0.02
TCN092	64	WI	2127	45	2620	0.02
RCD022	66	WI	104	2	450	0.02
PHL021	62	WI	743	14	1129	0.02

SAIFI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIFI
ARK082	66	WI	596	11	664	0.02
MAF061	68	WI	272	5	479	0.02
DRS211	61	WI	109	2	297	0.02
IRW002	63	WI	562	10	768	0.02
ELS022	65	WI	465	7	428	0.02
RBL021	62	WI	137	2	446	0.01
ARK081	66	WI	85	1	190	0.01
RBL022	62	WI	175	2	113	0.01
ELS034	65	WI	282	3	804	0.01
FIN021	61	WI	661	7	458	0.01
CUM082	60	WI	101	1	103	0.01
MCO001	63	WI	203	2	221	0.01
LON063	65	WI	204	2	339	0.01
AMY001	60	WI	560	5	913	0.01
SWC061	68	WI	355	3	912	0.01
BAV001	62	WI	732	6	396	0.01
IRB001	63	WI	149	1	99	0.01
RBL023	62	WI	659	4	361	0.01
TUR022	60	WI	344	2	329	0.01
OPK010	60	WI	347	2	127	0.01
VAV001	62	WI	282	1	41	0.00
TUR021	60	WI	290	1	48	0.00
ETK021	67	WI	337	1	76	0.00
CHF033	65	WI	559	1	72	0.00
ALM560	66	WI	15	0	0	0.00
AMC001	62	WI	3	0	0	0.00
AMC002	62	WI	3	0	0	0.00
BLR020	65	WI	0	0	0	0.00
EWA001	61	WI	3	0	0	0.00
HWY021	62	WI	3	0	0	0.00
INO001	62	WI	3	0	0	0.00
IRP001	63	WI	3	0	0	0.00
LDP001	61	WI	0	0	0	0.00
MAF062	68	WI	51	0	0	0.00
PRS563	65	WI	3	0	0	0.00
PRS565	65	WI	3	0	0	0.00
SAX001	63	WI	3	0	0	0.00
SWC062	68	WI	12	0	0	0.00
UPS001	63	WI	45	0	0	0.00
WAF001	63	WI	3	0	0	0.00
WBI021	62	WI	3	0	0	0.00
WTH001	61	WI	0	0	0	0.00

TAB 1.2

SAIDI

SAIDI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIDI
SUP021	63	WI	149	873	256438	1721.06
PSI021	63	WI	1256	5244	1796638	1430.44
MRC022	63	WI	1510	9219	1938680	1283.89
RTL021	63	WI	1035	6475	1312772	1268.38
RTL022	63	WI	918	6155	1052361	1146.36
MRC021	63	WI	98	537	102255	1043.42
SXF021	63	WI	204	824	161954	793.89
BYF021	62	WI	2185	8629	1697765	777.01
CSH022	67	WI	442	1957	324509	734.18
ALC022	67	WI	222	291	126900	571.62
BLD021	63	WI	629	1571	334178	531.28
BKD021	62	WI	290	835	143362	494.35
CVA022	67	WI	371	1337	169511	456.90
WHR023	62	WI	243	464	100300	412.76
MCO021	63	WI	397	1237	154711	389.70
TWN021	63	WI	693	2834	246679	355.96
CNR001	63	WI	3	6	1065	355.00
HGN021	63	WI	6	12	2130	355.00
JKS021	63	WI	4	8	1420	355.00
TLA001	63	WI	1	2	355	355.00
CSH021	67	WI	122	264	41420	339.51
WDM081	61	WI	743	1879	250630	337.32
RID082	61	WI	734	1524	240866	328.16
ALC021	67	WI	394	807	124367	315.65
RID081	61	WI	536	1051	167827	313.11
GLM021	64	WI	475	1276	148509	312.65
WHR021	62	WI	152	542	44008	289.53
LUP001	63	WI	3	6	861	287.00
CVA021	67	WI	660	1791	186143	282.03
CAB022	61	WI	289	498	81081	280.56
BLA022	67	WI	15	17	4080	272.00
TWN022	63	WI	676	2566	181858	269.02
TRL081	61	WI	828	1052	219922	265.61
HER001	62	WI	142	221	37689	265.42
WIB569	65	WI	1271	3187	332885	261.91
HYD032	65	WI	2546	6984	656329	257.79
GEN198	68	WI	271	271	64387	237.59
ELL021	60	WI	1032	1148	240692	233.23
IHD021	63	WI	322	721	74975	232.84
ELL022	60	WI	310	318	70218	226.51
AUG022	65	WI	694	786	156522	225.54
WBN022	62	WI	444	186	99232	223.50
RSH081	60	WI	2135	5196	456042	213.60
GAL021	67	WI	1254	1942	256993	204.94
MER021	67	WI	762	631	156107	204.86
SND021	61	WI	2517	3275	507480	201.62
BES021	63	WI	1063	2353	212806	200.19
SCF024	60	WI	223	496	43755	196.21
SPA032	67	WI	1783	887	345194	193.60
NSI001	63	WI	631	1915	121014	191.78

SAIDI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIDI
SLD021	61	WI	281	309	53194	189.30
EGP211	65	WI	1157	2967	209782	181.32
CPM022	67	WI	5	11	891	178.20
VIR061	67	WI	1316	2786	234153	177.93
KIN081	60	WI	448	1011	77761	173.57
CPM023	67	WI	6	7	1040	173.33
VIR003	67	WI	894	1582	151820	169.82
LOY022	64	WI	749	886	122466	163.51
MSE021	62	WI	29	29	4611	159.00
CEF081	66	WI	815	1791	126599	155.34
CAD061	65	WI	51	53	7562	148.27
HWD022	61	WI	668	885	97240	145.57
ELS027	65	WI	2104	2635	304894	144.91
RIC081	60	WI	2030	2665	293896	144.78
SPR021	66	WI	748	1401	103387	138.22
BLA023	67	WI	555	633	75964	136.87
BLA021	67	WI	673	761	89454	132.92
PRE021	60	WI	1280	992	167336	130.73
LKC081	60	WI	1246	1106	162147	130.13
CON021	61	WI	314	384	40713	129.66
TAD021	61	WI	334	438	43183	129.29
EGA022	66	WI	348	389	44731	128.54
RSK021	66	WI	669	639	82119	122.75
FEN073	68	WI	954	2198	116131	121.73
RSH091	66	WI	946	1433	114957	121.52
EGA021	66	WI	117	137	13893	118.74
BES022	63	WI	1082	1194	127164	117.53
BFT061	62	WI	576	325	67376	116.97
WND081	66	WI	271	354	31616	116.66
RSH092	60	WI	305	425	34841	114.23
MLS021	67	WI	515	530	55664	108.09
NLV032	64	WI	538	590	57213	106.34
FIN022	61	WI	1927	2068	204236	105.99
TCN091	64	WI	947	657	99991	105.59
NLV021	64	WI	987	990	104044	105.41
NLV031	64	WI	584	608	60675	103.90
ELS024	65	WI	97	97	9991	103.00
NRA001	63	WI	469	491	47162	100.56
CPM026	67	WI	403	215	40309	100.02
HAF001	67	WI	108	36	10732	99.37
MEY021	63	WI	3	3	294	98.00
LAX076	68	WI	1158	3022	102929	88.89
TRX021	65	WI	979	1006	85723	87.56
FAY001	62	WI	258	252	22322	86.52
CAT021	67	WI	483	195	41649	86.23
HUR022	63	WI	862	275	74067	85.92
JIM021	65	WI	355	205	30498	85.91
MDR021	66	WI	149	113	12794	85.87
CTS021	64	WI	722	303	61623	85.35
CAB021	61	WI	420	395	35802	85.24

SAIDI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIDI
BAY021	60	WI	800	450	65849	82.31
OSC022	60	WI	701	969	55731	79.50
WDB001	63	WI	7	3	554	79.14
MAD062	65	WI	929	400	71623	77.10
NFO031	62	WI	1317	1164	100024	75.95
MEN032	66	WI	1774	1171	134318	75.71
HYD031	65	WI	55	103	4157	75.58
CPM024	67	WI	396	191	29912	75.54
VIR002	67	WI	496	501	37350	75.30
CHF031	65	WI	434	444	31967	73.66
ELM021	66	WI	220	148	16047	72.94
WTL061	61	WI	1292	1436	91530	70.84
SWC071	68	WI	254	269	17647	69.48
FEN062	68	WI	486	264	33349	68.62
HAL072	65	WI	1144	1375	78093	68.26
CRN001	62	WI	118	119	7956	67.42
MNT001	63	WI	822	451	55020	66.93
TRP021	64	WI	505	204	32616	64.59
YLR082	61	WI	1080	1270	66203	61.30
LYN022	64	WI	415	439	25093	60.47
MEN021	66	WI	878	404	52546	59.85
RIC082	60	WI	22	9	1305	59.32
WSM091	67	WI	1976	2198	116668	59.04
MNR021	62	WI	95	72	5494	57.83
LAX067	68	WI	790	218	45058	57.04
OTC021	65	WI	513	677	28675	55.90
WLR081	60	WI	654	468	35908	54.91
STM022	65	WI	994	376	53413	53.74
OSC021	60	WI	1256	1432	67273	53.56
SCF025	60	WI	967	1091	51122	52.87
GVA021	67	WI	313	325	16473	52.63
LON062	65	WI	467	129	24560	52.59
ELS032	65	WI	1176	1514	59953	50.98
MNR022	62	WI	110	79	5562	50.56
SPE021	64	WI	1014	354	50609	49.91
HAL063	65	WI	1479	1791	72810	49.23
RCL031	61	WI	1362	729	66397	48.75
LAX077	68	WI	739	2345	36015	48.73
LON071	65	WI	653	92	31380	48.06
HAL062	65	WI	1615	1942	76520	47.38
COU077	68	WI	1776	385	75259	42.38
OSC031	60	WI	17	17	714	42.00
OWN021	64	WI	1236	463	48773	39.46
GST021	60	WI	403	223	15865	39.37
MAF072	68	WI	653	311	25506	39.06
DUR022	66	WI	1019	357	39279	38.55
CHF022	65	WI	1670	927	64132	38.40
MAD071	65	WI	729	194	27823	38.17
HAY082	66	WI	1702	637	64835	38.09
HWD021	61	WI	539	161	20297	37.66

SAIDI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIDI
NFO021	62	WI	1057	475	39446	37.32
MEN022	66	WI	1542	1889	56784	36.82
COU069	68	WI	471	89	17300	36.73
BYD001	64	WI	314	78	11429	36.40
LAX075	68	WI	1600	398	57720	36.08
PTW001	62	WI	310	67	11183	36.07
WBN021	62	WI	837	134	29768	35.57
ONA061	68	WI	2244	1068	77676	34.61
LAX065	68	WI	948	1975	32133	33.90
PEP021	66	WI	898	226	29990	33.40
COU062	68	WI	1373	265	44350	32.30
ELS021	65	WI	424	87	13500	31.84
RVW021	65	WI	81	17	2499	30.85
WHR022	62	WI	225	116	6922	30.76
BEA414	60	WI	837	979	25533	30.51
RKL021	67	WI	725	160	21986	30.33
CMR021	61	WI	1082	251	32568	30.10
USR533	65	WI	6	1	177	29.50
LOY021	64	WI	960	284	28281	29.46
COU079	68	WI	547	169	16099	29.43
LPA001	62	WI	3	1	88	29.33
BNT021	62	WI	471	94	13785	29.27
COC021	66	WI	399	143	11560	28.97
CPM033	67	WI	393	64	11364	28.92
CPM034	67	WI	49	9	1413	28.84
TWT081	60	WI	1116	541	31040	27.81
RCD023	66	WI	888	230	22873	25.76
TRX032	65	WI	1804	470	46117	25.56
SPA022	67	WI	1432	332	36553	25.53
BIR021	61	WI	925	217	22767	24.61
CLL081	60	WI	496	138	12182	24.56
COU068	68	WI	1876	348	45977	24.51
OTC031	65	WI	1709	705	41757	24.43
OLU021	62	WI	94	46	2269	24.14
PRN021	62	WI	775	170	18698	24.13
MAF071	68	WI	1064	227	24796	23.30
STA081	64	WI	282	73	6456	22.89
PHL031	62	WI	1000	248	22573	22.57
CPM025	67	WI	225	31	5039	22.40
COU071	68	WI	1302	197	29041	22.30
FEN061	68	WI	1183	296	26163	22.12
CPM032	67	WI	618	84	13058	21.13
LAX062	68	WI	1840	509	36746	19.97
CHF024	65	WI	1365	406	27047	19.81
STM021	65	WI	522	160	10041	19.24
TRE021	67	WI	18	1	336	18.67
WLR092	60	WI	3759	407	70059	18.64
HLA062	68	WI	1426	334	26446	18.55
COU061	68	WI	1561	271	28666	18.36
RCD024	66	WI	121	165	2206	18.23

SAIDI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIDI
ELS031	65	WI	743	102	13488	18.15
BIR022	61	WI	572	46	9814	17.16
SWC072	68	WI	1180	301	20201	17.12
AYR022	63	WI	882	200	14821	16.80
ONA062	68	WI	937	124	15410	16.45
IRW003	63	WI	531	114	8525	16.05
COU078	68	WI	1207	237	19180	15.89
RCL021	61	WI	51	15	810	15.88
LYN021	64	WI	255	34	3897	15.28
BEA415	60	WI	381	48	5703	14.97
WHH023	67	WI	752	61	11252	14.96
ELS033	65	WI	1490	156	21799	14.63
HAL073	65	WI	409	121	5948	14.54
STA083	64	WI	562	58	8056	14.33
LUK021	60	WI	1022	158	14596	14.28
GEN197	68	WI	762	55	10877	14.27
LAX074	68	WI	637	1267	9020	14.16
LON072	65	WI	702	79	9680	13.79
BFT062	62	WI	631	223	8484	13.45
TRX022	65	WI	746	257	9867	13.23
MEN023	66	WI	343	39	4530	13.21
GST023	60	WI	569	85	7353	12.92
POK061	61	WI	789	93	10126	12.83
SST062	62	WI	586	53	7329	12.51
TRX031	65	WI	77	19	956	12.42
FEN072	68	WI	848	145	10500	12.38
WSM081	67	WI	1239	126	14193	11.46
GRV021	62	WI	105	15	1183	11.27
SST061	62	WI	541	59	6004	11.10
SHW021	65	WI	262	63	2859	10.91
TRP022	64	WI	911	94	9669	10.61
WTL062	61	WI	1113	105	11706	10.52
OTC023	65	WI	1370	1395	13839	10.10
DRM021	61	WI	192	42	1836	9.56
CPM035	67	WI	99	6	942	9.52
OGE021	62	WI	171	23	1623	9.49
JEF211	65	WI	97	12	919	9.47
HLA071	68	WI	1211	215	11357	9.38
CHF023	65	WI	877	122	8203	9.35
LON061	65	WI	1299	86	11765	9.06
PRE022	60	WI	629	50	5581	8.87
OTC032	65	WI	1454	158	12130	8.34
ALM559	66	WI	505	19	4180	8.28
OPY081	61	WI	611	49	4992	8.17
WLR082	60	WI	2232	296	18142	8.13
ELM022	66	WI	589	42	4622	7.85
SOE001	62	WI	507	34	3854	7.60
POK062	61	WI	876	45	6447	7.36
TRX033	65	WI	366	32	2618	7.15
AUG021	65	WI	318	27	2123	6.68

SAIDI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIDI
WSM092	67	WI	1092	124	7177	6.57
SPA031	67	WI	1560	107	10114	6.48
MAD072	65	WI	2114	260	13507	6.39
NAP021	65	WI	516	31	3219	6.24
IRW005	63	WI	315	22	1953	6.20
CTA021	62	WI	314	24	1806	5.75
NAP022	65	WI	1417	96	7896	5.57
NEL021	66	WI	245	16	1322	5.40
OTC022	65	WI	1579	122	8102	5.13
TRL082	61	WI	352	27	1799	5.11
AYR021	63	WI	813	44	4091	5.03
WHH022	67	WI	563	39	2823	5.01
HWK021	61	WI	226	14	1043	4.62
FLC097	65	WI	609	14	2726	4.48
GLA021	63	WI	75	4	330	4.40
RCD022	66	WI	104	2	450	4.33
SVN001	62	WI	293	28	1265	4.32
WLR091	60	WI	2487	138	10402	4.18
HAY081	66	WI	647	34	2641	4.08
YLR081	61	WI	3	1	12	4.00
MAF063	68	WI	1544	192	6053	3.92
HUR021	63	WI	374	19	1428	3.82
LAX063	68	WI	1480	114	5200	3.51
EGP212	65	WI	284	11	945	3.33
RBL021	62	WI	137	2	446	3.26
MAD061	65	WI	315	18	1022	3.24
TST001	62	WI	300	10	954	3.18
MLN001	62	WI	596	24	1808	3.03
ELS034	65	WI	282	3	804	2.85
DRS211	61	WI	109	2	297	2.72
SWC061	68	WI	355	3	912	2.57
CUM081	60	WI	222	5	551	2.48
TCN081	64	WI	2062	117	5027	2.44
DUR021	66	WI	480	24	1093	2.28
ARK081	66	WI	85	1	190	2.24
GDN021	62	WI	421	11	898	2.13
SPA021	67	WI	461	54	945	2.05
ELK001	65	WI	416	9	767	1.84
MAF061	68	WI	272	5	479	1.76
LON063	65	WI	204	2	339	1.66
AMY001	60	WI	560	5	913	1.63
CLL082	60	WI	405	11	624	1.54
PHL021	62	WI	743	14	1129	1.52
IRW002	63	WI	562	10	768	1.37
TCN092	64	WI	2127	45	2620	1.23
ARK082	66	WI	596	11	664	1.11
MCO001	63	WI	203	2	221	1.09
CUM082	60	WI	101	1	103	1.02
TUR022	60	WI	344	2	329	0.96
ELS022	65	WI	465	7	428	0.92

SAIDI
Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	SAIDI
CHF021	65	WI	640	14	574	0.90
STA082	64	WI	719	16	514	0.71
FIN021	61	WI	661	7	458	0.69
IRB001	63	WI	149	1	99	0.66
RBL022	62	WI	175	2	113	0.65
RBL023	62	WI	659	4	361	0.55
BAV001	62	WI	732	6	396	0.54
OPK010	60	WI	347	2	127	0.37
ETK021	67	WI	337	1	76	0.23
TUR021	60	WI	290	1	48	0.17
VAV001	62	WI	282	1	41	0.15
CHF033	65	WI	559	1	72	0.13
ALM560	66	WI	15	0	0	0.00
AMC001	62	WI	3	0	0	0.00
AMC002	62	WI	3	0	0	0.00
BLR020	65	WI	0	0	0	0.00
EWA001	61	WI	3	0	0	0.00
HWY021	62	WI	3	0	0	0.00
INO001	62	WI	3	0	0	0.00
IRP001	63	WI	3	0	0	0.00
LDP001	61	WI	0	0	0	0.00
MAF062	68	WI	51	0	0	0.00
PRS563	65	WI	3	0	0	0.00
PRS565	65	WI	3	0	0	0.00
SAX001	63	WI	3	0	0	0.00
SWC062	68	WI	12	0	0	0.00
UPS001	63	WI	45	0	0	0.00
WAF001	63	WI	3	0	0	0.00
WBI021	62	WI	3	0	0	0.00
WTH001	61	WI	0	0	0	0.00

TAB 1.3

CAIDI

CAIDI

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	CAIDI
WBN022	62	WI	444	186	99232	533.51
ALC022	67	WI	222	291	126900	436.08
SPA032	67	WI	1783	887	345194	389.17
PSI021	63	WI	1256	5244	1796638	342.61
LON071	65	WI	653	92	31380	341.09
TRE021	67	WI	18	1	336	336.00
SWC061	68	WI	355	3	912	304.00
HAF001	67	WI	108	36	10732	298.11
SUP021	63	WI	149	873	256438	293.74
HUR022	63	WI	862	275	74067	269.33
ELS034	65	WI	282	3	804	268.00
MER021	67	WI	762	631	156107	247.40
BLA022	67	WI	15	17	4080	240.00
GEN198	68	WI	271	271	64387	237.59
RCD022	66	WI	104	2	450	225.00
RBL021	62	WI	137	2	446	223.00
WBN021	62	WI	837	134	29768	222.15
ELL022	60	WI	310	318	70218	220.81
ALM559	66	WI	505	19	4180	220.00
WHR023	62	WI	243	464	100300	216.16
CAT021	67	WI	483	195	41649	213.58
BIR022	61	WI	572	46	9814	213.35
BLD021	63	WI	629	1571	334178	212.72
MRC022	63	WI	1510	9219	1938680	210.29
ELL021	60	WI	1032	1148	240692	209.66
TRL081	61	WI	828	1052	219922	209.05
BFT061	62	WI	576	325	67376	207.31
LAX067	68	WI	790	218	45058	206.69
CTS021	64	WI	722	303	61623	203.38
RTL021	63	WI	1035	6475	1312772	202.74
AUG022	65	WI	694	786	156522	199.14
GEN197	68	WI	762	55	10877	197.76
BYF021	62	WI	2185	8629	1697765	196.75
SXF021	63	WI	204	824	161954	196.55
COU077	68	WI	1776	385	75259	195.48
FLC097	65	WI	609	14	2726	194.71
COU069	68	WI	471	89	17300	194.38
MRC021	63	WI	98	537	102255	190.42
LON062	65	WI	467	129	24560	190.39
ARK081	66	WI	85	1	190	190.00
CPM026	67	WI	403	215	40309	187.48
WDB001	63	WI	7	3	554	184.67
WHH023	67	WI	752	61	11252	184.46
AMY001	60	WI	560	5	913	182.60
MAD062	65	WI	929	400	71623	179.06
CPM033	67	WI	393	64	11364	177.56
CNR001	63	WI	3	6	1065	177.50
HGN021	63	WI	6	12	2130	177.50
JKS021	63	WI	4	8	1420	177.50
TLA001	63	WI	1	2	355	177.50

CAIDI

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	CAIDI
USR533	65	WI	6	1	177	177.00
SLD021	61	WI	281	309	53194	172.15
WLR092	60	WI	3759	407	70059	172.14
BKD021	62	WI	290	835	143362	171.69
RTL022	63	WI	918	6155	1052361	170.98
HER001	62	WI	142	221	37689	170.54
LON063	65	WI	204	2	339	169.50
PRE021	60	WI	1280	992	167336	168.69
COU062	68	WI	1373	265	44350	167.36
PTW001	62	WI	310	67	11183	166.91
CSH022	67	WI	442	1957	324509	165.82
TUR022	60	WI	344	2	329	164.50
CAB022	61	WI	289	498	81081	162.81
CPM025	67	WI	225	31	5039	162.55
TRP021	64	WI	505	204	32616	159.88
RID081	61	WI	536	1051	167827	159.68
MSE021	62	WI	29	29	4611	159.00
RID082	61	WI	734	1524	240866	158.05
CPM034	67	WI	49	9	1413	157.00
CPM035	67	WI	99	6	942	157.00
CSH021	67	WI	122	264	41420	156.89
CPM024	67	WI	396	191	29912	156.61
CPM032	67	WI	618	84	13058	155.45
ELS021	65	WI	424	87	13500	155.17
SND021	61	WI	2517	3275	507480	154.96
ALC021	67	WI	394	807	124367	154.11
TCN091	64	WI	947	657	99991	152.19
JIM021	65	WI	355	205	30498	148.77
CPM023	67	WI	6	7	1040	148.57
DRS211	61	WI	109	2	297	148.50
COU071	68	WI	1302	197	29041	147.42
RVW021	65	WI	81	17	2499	147.00
BNT021	62	WI	471	94	13785	146.65
LKC081	60	WI	1246	1106	162147	146.61
BYD001	64	WI	314	78	11429	146.53
BAY021	60	WI	800	450	65849	146.33
LAX075	68	WI	1600	398	57720	145.03
RIC082	60	WI	22	9	1305	145.00
LUP001	63	WI	3	6	861	143.50
MAD071	65	WI	729	194	27823	143.42
POK062	61	WI	876	45	6447	143.27
SPE021	64	WI	1014	354	50609	142.96
CAD061	65	WI	51	53	7562	142.68
STM022	65	WI	994	376	53413	142.06
ELS033	65	WI	1490	156	21799	139.74
STA083	64	WI	562	58	8056	138.90
SST062	62	WI	586	53	7329	138.28
LOY022	64	WI	749	886	122466	138.22
RKL021	67	WI	725	160	21986	137.41
LON061	65	WI	1299	86	11765	136.80

CAIDI

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	CAIDI
WDM081	61	WI	743	1879	250630	133.38
PEP021	66	WI	898	226	29990	132.70
GAL021	67	WI	1254	1942	256993	132.33
ELS031	65	WI	743	102	13488	132.24
COU068	68	WI	1876	348	45977	132.12
MEN021	66	WI	878	404	52546	130.06
CMR021	61	WI	1082	251	32568	129.75
RSK021	66	WI	669	639	82119	128.51
CVA022	67	WI	371	1337	169511	126.78
FEN062	68	WI	486	264	33349	126.32
HWD021	61	WI	539	161	20297	126.07
MCO021	63	WI	397	1237	154711	125.07
ONA062	68	WI	937	124	15410	124.27
LON072	65	WI	702	79	9680	122.53
MNT001	63	WI	822	451	55020	122.00
BLA023	67	WI	555	633	75964	120.01
BEA415	60	WI	381	48	5703	118.81
BLA021	67	WI	673	761	89454	117.55
GLM021	64	WI	475	1276	148509	116.39
MEN023	66	WI	343	39	4530	116.15
ELS027	65	WI	2104	2635	304894	115.71
EGA022	66	WI	348	389	44731	114.99
MEN032	66	WI	1774	1171	134318	114.70
LYN021	64	WI	255	34	3897	114.62
SOE001	62	WI	507	34	3854	113.35
MDR021	66	WI	149	113	12794	113.22
WSM081	67	WI	1239	126	14193	112.64
PRE022	60	WI	629	50	5581	111.62
WTL062	61	WI	1113	105	11706	111.49
MCO001	63	WI	203	2	221	110.50
RIC081	60	WI	2030	2665	293896	110.28
CUM081	60	WI	222	5	551	110.20
SPA022	67	WI	1432	332	36553	110.10
ELM022	66	WI	589	42	4622	110.05
DUR022	66	WI	1019	357	39279	110.03
PRN021	62	WI	775	170	18698	109.99
HWD022	61	WI	668	885	97240	109.88
MAF071	68	WI	1064	227	24796	109.23
POK061	61	WI	789	93	10126	108.88
ELM021	66	WI	220	148	16047	108.43
BES022	63	WI	1082	1194	127164	106.50
CON021	61	WI	314	384	40713	106.02
COU061	68	WI	1561	271	28666	105.78
OWN021	64	WI	1236	463	48773	105.34
NLV021	64	WI	987	990	104044	105.09
MLS021	67	WI	515	530	55664	105.03
BIR021	61	WI	925	217	22767	104.92
WIB569	65	WI	1271	3187	332885	104.45
IHD021	63	WI	322	721	74975	103.99
CVA021	67	WI	660	1791	186143	103.93

CAIDI

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	CAIDI
NAP021	65	WI	516	31	3219	103.84
CUM082	60	WI	101	1	103	103.00
ELS024	65	WI	97	97	9991	103.00
TRP022	64	WI	911	94	9669	102.86
OPY081	61	WI	611	49	4992	101.88
HAY082	66	WI	1702	637	64835	101.78
SST061	62	WI	541	59	6004	101.76
EGA021	66	WI	117	137	13893	101.41
NLV031	64	WI	584	608	60675	99.79
LOY021	64	WI	960	284	28281	99.58
RCD023	66	WI	888	230	22873	99.45
IRB001	63	WI	149	1	99	99.00
FIN022	61	WI	1927	2068	204236	98.76
TAD021	61	WI	334	438	43183	98.59
TRX032	65	WI	1804	470	46117	98.12
MEY021	63	WI	3	3	294	98.00
NLV032	64	WI	538	590	57213	96.97
NRA001	63	WI	469	491	47162	96.05
VIR003	67	WI	894	1582	151820	95.97
MAF061	68	WI	272	5	479	95.80
TST001	62	WI	300	10	954	95.40
COU079	68	WI	547	169	16099	95.26
SPA031	67	WI	1560	107	10114	94.52
HYD032	65	WI	2546	6984	656329	93.98
AYR021	63	WI	813	44	4091	92.98
LUK021	60	WI	1022	158	14596	92.38
RCL031	61	WI	1362	729	66397	91.08
PHL031	62	WI	1000	248	22573	91.02
CAB021	61	WI	420	395	35802	90.64
BES021	63	WI	1063	2353	212806	90.44
RBL023	62	WI	659	4	361	90.25
WND081	66	WI	271	354	31616	89.31
IRW005	63	WI	315	22	1953	88.77
FAY001	62	WI	258	252	22322	88.58
STA081	64	WI	282	73	6456	88.44
FEN061	68	WI	1183	296	26163	88.39
CLL081	60	WI	496	138	12182	88.28
SCF024	60	WI	223	496	43755	88.22
LPA001	62	WI	3	1	88	88.00
RSH081	60	WI	2135	5196	456042	87.77
TWN021	63	WI	693	2834	246679	87.04
GST023	60	WI	569	85	7353	86.51
NFO031	62	WI	1317	1164	100024	85.93
EGP212	65	WI	284	11	945	85.91
ELK001	65	WI	416	9	767	85.22
TRX021	65	WI	979	1006	85723	85.21
VIR061	67	WI	1316	2786	234153	84.05
NFO021	62	WI	1057	475	39446	83.04
NEL021	66	WI	245	16	1322	82.63
GLA021	63	WI	75	4	330	82.50

CAIDI

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	CAIDI
NAP022	65	WI	1417	96	7896	82.25
MAF072	68	WI	653	311	25506	82.01
RSH092	60	WI	305	425	34841	81.98
TRX033	65	WI	366	32	2618	81.81
GDN021	62	WI	421	11	898	81.64
WHR021	62	WI	152	542	44008	81.20
CPM022	67	WI	5	11	891	81.00
COU078	68	WI	1207	237	19180	80.93
COC021	66	WI	399	143	11560	80.84
PHL021	62	WI	743	14	1129	80.64
RSH091	66	WI	946	1433	114957	80.22
HLA062	68	WI	1426	334	26446	79.18
GRV021	62	WI	105	15	1183	78.87
AUG021	65	WI	318	27	2123	78.63
HAY081	66	WI	647	34	2641	77.68
KIN081	60	WI	448	1011	77761	76.91
IRW002	63	WI	562	10	768	76.80
OTC032	65	WI	1454	158	12130	76.77
WLR081	60	WI	654	468	35908	76.73
JEF211	65	WI	97	12	919	76.58
MNR021	62	WI	95	72	5494	76.31
ETK021	67	WI	337	1	76	76.00
WLR091	60	WI	2487	138	10402	75.38
MLN001	62	WI	596	24	1808	75.33
CTA021	62	WI	314	24	1806	75.25
HUR021	63	WI	374	19	1428	75.16
IRW003	63	WI	531	114	8525	74.78
VIR002	67	WI	496	501	37350	74.55
HWK021	61	WI	226	14	1043	74.50
AYR022	63	WI	882	200	14821	74.11
SPR021	66	WI	748	1401	103387	73.80
ONA061	68	WI	2244	1068	77676	72.73
FEN072	68	WI	848	145	10500	72.41
WHH022	67	WI	563	39	2823	72.38
LAX062	68	WI	1840	509	36746	72.19
CHF033	65	WI	559	1	72	72.00
CHF031	65	WI	434	444	31967	72.00
GST021	60	WI	403	223	15865	71.14
TWN022	63	WI	676	2566	181858	70.87
EGP211	65	WI	1157	2967	209782	70.71
CEF081	66	WI	815	1791	126599	70.69
OGE021	62	WI	171	23	1623	70.57
MNR022	62	WI	110	79	5562	70.41
CHF022	65	WI	1670	927	64132	69.18
CHF023	65	WI	877	122	8203	67.24
SWC072	68	WI	1180	301	20201	67.11
CRN001	62	WI	118	119	7956	66.86
TRL082	61	WI	352	27	1799	66.63
CHF024	65	WI	1365	406	27047	66.62
OTC022	65	WI	1579	122	8102	66.41

CAIDI

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	CAIDI
BAV001	62	WI	732	6	396	66.00
SWC071	68	WI	254	269	17647	65.60
FIN021	61	WI	661	7	458	65.43
WTL061	61	WI	1292	1436	91530	63.74
OPK010	60	WI	347	2	127	63.50
NSI001	63	WI	631	1915	121014	63.19
STM021	65	WI	522	160	10041	62.76
WLR082	60	WI	2232	296	18142	61.29
ELS022	65	WI	465	7	428	61.14
ARK082	66	WI	596	11	664	60.36
WHR022	62	WI	225	116	6922	59.67
OTC031	65	WI	1709	705	41757	59.23
TCN092	64	WI	2127	45	2620	58.22
WSM092	67	WI	1092	124	7177	57.88
OSC022	60	WI	701	969	55731	57.51
TWT081	60	WI	1116	541	31040	57.38
LYN022	64	WI	415	439	25093	57.16
HAL072	65	WI	1144	1375	78093	56.79
MAD061	65	WI	315	18	1022	56.78
CLL082	60	WI	405	11	624	56.73
RBL022	62	WI	175	2	113	56.50
RCL021	61	WI	51	15	810	54.00
WSM091	67	WI	1976	2198	116668	53.08
FEN073	68	WI	954	2198	116131	52.83
HLA071	68	WI	1211	215	11357	52.82
YLR082	61	WI	1080	1270	66203	52.13
MAD072	65	WI	2114	260	13507	51.95
GVA021	67	WI	313	325	16473	50.69
TRX031	65	WI	77	19	956	50.32
OLU021	62	WI	94	46	2269	49.33
HAL073	65	WI	409	121	5948	49.16
TUR021	60	WI	290	1	48	48.00
OSC021	60	WI	1256	1432	67273	46.98
SCF025	60	WI	967	1091	51122	46.86
LAX063	68	WI	1480	114	5200	45.61
DUR021	66	WI	480	24	1093	45.54
SHW021	65	WI	262	63	2859	45.38
SVN001	62	WI	293	28	1265	45.18
DRM021	61	WI	192	42	1836	43.71
TCN081	64	WI	2062	117	5027	42.97
OTC021	65	WI	513	677	28675	42.36
OSC031	60	WI	17	17	714	42.00
CHF021	65	WI	640	14	574	41.00
VAV001	62	WI	282	1	41	41.00
HAL063	65	WI	1479	1791	72810	40.65
HYD031	65	WI	55	103	4157	40.36
ELS032	65	WI	1176	1514	59953	39.60
HAL062	65	WI	1615	1942	76520	39.40
TRX022	65	WI	746	257	9867	38.39
BFT062	62	WI	631	223	8484	38.04

CAIDI

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

Feeder	Div	Reg	Custs	Sustained Cust Ints	Sustained Cust Mins	CAIDI
LAX076	68	WI	1158	3022	102929	34.06
STA082	64	WI	719	16	514	32.13
MAF063	68	WI	1544	192	6053	31.53
MEN022	66	WI	1542	1889	56784	30.06
BEA414	60	WI	837	979	25533	26.08
SPA021	67	WI	461	54	945	17.50
LAX065	68	WI	948	1975	32133	16.27
LAX077	68	WI	739	2345	36015	15.36
RCD024	66	WI	121	165	2206	13.37
YLR081	61	WI	3	1	12	12.00
OTC023	65	WI	1370	1395	13839	9.92
LAX074	68	WI	637	1267	9020	7.12
ALM560	66	WI	15	0	0	0.00
AMC001	62	WI	3	0	0	0.00
AMC002	62	WI	3	0	0	0.00
BLR020	65	WI	0	0	0	0.00
EWA001	61	WI	3	0	0	0.00
HWY021	62	WI	3	0	0	0.00
INO001	62	WI	3	0	0	0.00
IRP001	63	WI	3	0	0	0.00
LDP001	61	WI	0	0	0	0.00
MAF062	68	WI	51	0	0	0.00
PRS563	65	WI	3	0	0	0.00
PRS565	65	WI	3	0	0	0.00
SAX001	63	WI	3	0	0	0.00
SWC062	68	WI	12	0	0	0.00
UPS001	63	WI	45	0	0	0.00
WAF001	63	WI	3	0	0	0.00
WBI021	62	WI	3	0	0	0.00
WTH001	61	WI	0	0	0	0.00

TAB 1.4

ALL

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

der	Div	Reg	Custs	Count Mom	Count Sust	Momentary Cust Ints	Momentary Cust Mins	Sustained Cust Ints	Sustained Cust Mins	Total Cust Ints	Total Cust Mins	SAIFI	CAIDI	SAIDI	MAIFI
021	67	WI	394	1	10	5	5	807	124367	812	124372	2.05	154.11	315.65	0.01
ALC022	67	WI	222	0	9	0	0	291	126900	291	126900	1.31	436.08	571.62	0.00
ALM559	66	WI	505	2	6	1012	0	19	4180	1031	4180	0.04	220.00	8.28	2.00
ALM560	66	WI	15	2	0	30	0	0	0	30	0	0.00	0.00	0.00	2.00
AMC001	62	WI	3	3	0	9	0	0	0	9	0	0.00	0.00	0.00	3.00
AMC002	62	WI	3	3	0	9	0	0	0	9	0	0.00	0.00	0.00	3.00
AMY001	60	WI	560	0	3	0	0	5	913	5	913	0.01	182.60	1.63	0.00
ARK081	66	WI	85	1	1	1	1	1	190	2	191	0.01	190.00	2.24	0.01
ARK082	66	WI	596	0	7	0	0	11	664	11	664	0.02	60.36	1.11	0.00
AUG021	65	WI	318	3	7	948	0	27	2123	975	2123	0.08	78.63	6.68	2.98
AUG022	65	WI	694	2	8	1388	0	786	156522	2174	156522	1.13	199.14	225.54	2.00
AYR021	63	WI	813	0	6	0	0	44	4091	44	4091	0.05	92.98	5.03	0.00
AYR022	63	WI	882	0	22	0	0	200	14821	200	14821	0.23	74.11	16.80	0.00
BAV001	62	WI	732	0	6	0	0	6	396	6	396	0.01	66.00	0.54	0.00
BAY021	60	WI	800	8	19	6360	0	450	65849	6810	65849	0.56	146.33	82.31	7.95
BEA414	60	WI	837	0	24	0	0	979	25533	979	25533	1.17	26.08	30.51	0.00
BEA415	60	WI	381	1	5	1	4	48	5703	49	5707	0.13	118.81	14.97	0.00
BES021	63	WI	1063	5	27	5298	0	2353	212806	7651	212806	2.21	90.44	200.19	4.98
BES022	63	WI	1082	7	8	5405	4	1194	127164	6599	127168	1.10	106.50	117.53	5.00
BFT061	62	WI	576	0	15	0	0	325	67376	325	67376	0.56	207.31	116.97	0.00
BFT062	62	WI	631	0	12	0	0	223	8484	223	8484	0.35	38.04	13.45	0.00
BIR021	61	WI	925	2	36	912	9	217	22767	1129	22776	0.23	104.92	24.61	0.99
BIR022	61	WI	572	0	17	0	0	46	9814	46	9814	0.08	213.35	17.16	0.00
BKD021	62	WI	290	3	25	855	0	835	143362	1690	143362	2.88	171.69	494.35	2.95
BLA021	67	WI	673	3	13	2011	0	761	89454	2772	89454	1.13	117.55	132.92	2.99
BLA022	67	WI	15	3	1	51	34	17	4080	68	4114	1.13	240.00	272.00	3.40
BLA023	67	WI	555	4	6	1684	1144	633	75964	2317	77108	1.14	120.01	136.87	3.03
BLD021	63	WI	629	5	25	3185	0	1571	334178	4756	334178	2.50	212.72	531.28	5.06
BLR020	65	WI	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
NT021	62	WI	471	1	10	1	1	94	13785	95	13786	0.20	146.65	29.27	0.00
001	64	WI	314	3	5	936	0	78	11429	1014	11429	0.25	146.53	36.40	2.98
021	62	WI	2185	2	93	4258	0	8629	1697765	12887	1697765	3.95	196.75	777.01	1.95
CAB021	61	WI	420	3	21	1333	0	395	35802	1728	35802	0.94	90.64	85.24	3.17
CAB022	61	WI	289	3	19	1316	0	498	81081	1814	81081	1.72	162.81	280.56	4.55
CAD061	65	WI	51	3	5	147	0	53	7562	200	7562	1.04	142.68	148.27	2.88
CAT021	67	WI	483	3	18	1451	0	195	41649	1646	41649	0.40	213.58	86.23	3.00
CEF081	66	WI	815	1	24	1	1	1791	126599	1792	126600	2.20	70.69	155.34	0.00
CHF021	65	WI	640	1	2	577	0	14	574	591	574	0.02	41.00	0.90	0.90
CHF022	65	WI	1670	0	23	0	0	927	64132	927	64132	0.56	69.18	38.40	0.00
CHF023	65	WI	877	0	6	0	0	122	8203	122	8203	0.14	67.24	9.35	0.00
CHF024	65	WI	1365	0	24	0	0	406	27047	406	27047	0.30	66.62	19.81	0.00
CHF031	65	WI	434	0	7	0	0	444	31967	444	31967	1.02	72.00	73.66	0.00
CHF033	65	WI	559	0	1	0	0	1	72	1	72	0.00	72.00	0.13	0.00
CLL081	60	WI	496	1	12	490	0	138	12182	628	12182	0.28	88.28	24.56	0.99
CLL082	60	WI	405	0	3	0	0	11	624	11	624	0.03	56.73	1.54	0.00
CMR021	61	WI	1082	1	26	1079	0	251	32568	1330	32568	0.23	129.75	30.10	1.00
CNR001	63	WI	3	4	2	12	0	6	1065	18	1065	2.00	177.50	355.00	4.00
COC021	66	WI	399	1	14	400	0	143	11560	543	11560	0.36	80.84	28.97	1.00
CON021	61	WI	314	3	13	777	312	384	40713	1161	41025	1.22	106.02	129.66	2.47
COU061	68	WI	1561	0	9	0	0	271	28666	271	28666	0.17	105.78	18.36	0.00
COU062	68	WI	1373	0	18	0	0	265	44350	265	44350	0.19	167.36	32.30	0.00
COU068	68	WI	1876	0	21	0	0	348	45977	348	45977	0.19	132.12	24.51	0.00
COU069	68	WI	471	0	8	0	0	89	17300	89	17300	0.19	194.38	36.73	0.00
COU071	68	WI	1302	1	14	1868	0	197	29041	2065	29041	0.15	147.42	22.30	1.43
COU077	68	WI	1776	0	22	0	0	385	75259	385	75259	0.22	195.48	42.38	0.00
COU078	68	WI	1207	1	13	1209	0	237	19180	1446	19180	0.20	80.93	15.89	1.00
COU079	68	WI	547	1	8	548	0	169	16099	717	16099	0.31	95.26	29.43	1.00
CPM022	67	WI	5	3	1	15	0	11	891	26	891	2.20	81.00	178.20	3.00
CPM023	67	WI	6	3	2	18	0	7	1040	25	1040	1.17	148.57	173.33	3.00
CPM024	67	WI	396	3	2	1188	0	191	29912	1379	29912	0.48	156.61	75.54	3.00
CPM025	67	WI	225	3	4	666	0	31	5039	697	5039	0.14	162.55	22.40	2.96
026	67	WI	403	3	4	1207	0	215	40309	1422	40309	0.53	187.48	100.02	3.00
032	67	WI	618	3	5	1853	0	84	13058	1937	13058	0.14	155.45	21.13	3.00
CPM033	67	WI	393	3	3	1173	0	64	11364	1237	11364	0.16	177.56	28.92	2.98
CPM034	67	WI	49	3	1	149	0	9	1413	158	1413	0.18	157.00	28.84	3.04
CPM035	67	WI	99	3	1	273	0	6	942	279	942	0.06	157.00	9.52	2.76
CRN001	62	WI	118	9	3	1058	0	119	7956	1177	7956	1.01	66.86	67.42	8.97
CSH021	67	WI	122	10	7	1101	1	264	41420	1365	41421	2.16	156.89	339.51	9.02

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

der	Div	Reg	Custs	Count Mom	Count Sust	Momentary Cust Ints	Momentary Cust Mins	Sustained Cust Ints	Sustained Cust Mins	Total Cust Ints	Total Cust Mins	SAIFI	CAIDI	SAIDI	MAIFI
H022	67	WI	442	9	17	3828	0	1957	324509	5785	324509	4.43	165.82	734.18	8.66
CTA021	62	WI	314	0	7	0	0	24	1806	24	1806	0.08	75.25	5.75	0.00
CTS021	64	WI	722	0	10	0	0	303	61623	303	61623	0.42	203.38	85.35	0.00
CUM081	60	WI	222	1	4	222	0	5	551	227	551	0.02	110.20	2.48	1.00
CUM082	60	WI	101	0	1	0	0	1	103	1	103	0.01	103.00	1.02	0.00
CVA021	67	WI	660	7	27	4815	2457	1791	186143	6606	188600	2.71	103.93	282.03	7.30
CVA022	67	WI	371	8	22	2654	1364	1337	169511	3991	170875	3.60	126.78	456.90	7.15
DRM021	61	WI	192	3	3	580	772	42	1836	622	2608	0.22	43.71	9.56	3.02
DRS211	61	WI	109	0	2	0	0	2	297	2	297	0.02	148.50	2.72	0.00
DUR021	66	WI	480	0	6	0	0	24	1093	24	1093	0.05	45.54	2.28	0.00
DUR022	66	WI	1019	1	27	9	45	357	39279	366	39324	0.35	110.03	38.55	0.01
EGA021	66	WI	117	0	4	0	0	137	13893	137	13893	1.17	101.41	118.74	0.00
EGA022	66	WI	348	0	14	0	0	389	44731	389	44731	1.12	114.99	128.54	0.00
EGP211	65	WI	1157	0	30	0	0	2967	209782	2967	209782	2.56	70.71	181.32	0.00
EGP212	65	WI	284	0	4	0	0	11	945	11	945	0.04	85.91	3.33	0.00
ELK001	65	WI	416	3	8	418	10	9	767	427	777	0.02	85.22	1.84	1.00
ELL021	60	WI	1032	8	15	8215	0	1148	240692	9363	240692	1.11	209.66	233.23	7.96
ELL022	60	WI	310	8	3	2464	0	318	70218	2782	70218	1.03	220.81	226.51	7.95
ELM021	66	WI	220	0	11	0	0	148	16047	148	16047	0.67	108.43	72.94	0.00
ELM022	66	WI	589	0	4	0	0	42	4622	42	4622	0.07	110.05	7.85	0.00
ELS021	65	WI	424	1	7	424	0	87	13500	511	13500	0.21	155.17	31.84	1.00
ELS022	65	WI	465	0	6	0	0	7	428	7	428	0.02	61.14	0.92	0.00
ELS024	65	WI	97	0	1	0	0	97	9991	97	9991	1.00	103.00	103.00	0.00
ELS027	65	WI	2104	1	25	4	20	2635	304894	2639	304914	1.25	115.71	144.91	0.00
ELS031	65	WI	743	2	6	1486	0	102	13488	1588	13488	0.14	132.24	18.15	2.00
ELS032	65	WI	1176	3	10	3515	0	1514	59953	5029	59953	1.29	39.60	50.98	2.99
ELS033	65	WI	1490	2	9	2979	0	156	21799	3135	21799	0.10	139.74	14.63	2.00
ELS034	65	WI	282	2	3	564	0	3	804	567	804	0.01	268.00	2.85	2.00
ETK021	67	WI	337	3	1	1004	0	1	76	1005	76	0.00	76.00	0.23	2.98
FWA001	61	WI	3	1	0	3	0	0	0	3	0	0.00	0.00	0.00	1.00
001	62	WI	258	0	7	0	0	252	22322	252	22322	0.98	88.58	86.52	0.00
.061	68	WI	1183	0	19	0	0	296	26163	296	26163	0.25	88.39	22.12	0.00
FEN062	68	WI	486	3	7	1449	1452	264	33349	1713	34801	0.54	126.32	68.62	2.98
FEN072	68	WI	848	0	9	0	0	145	10500	145	10500	0.17	72.41	12.38	0.00
FEN073	68	WI	954	0	23	0	0	2198	116131	2198	116131	2.30	52.83	121.73	0.00
FIN021	61	WI	661	1	4	654	0	7	458	661	458	0.01	65.43	0.69	0.99
FIN022	61	WI	1927	1	85	1921	0	2068	204236	3989	204236	1.07	98.76	105.99	1.00
FLC097	65	WI	609	3	3	1825	0	14	2726	1839	2726	0.02	194.71	4.48	3.00
GAL021	67	WI	1254	0	23	0	0	1942	256993	1942	256993	1.55	132.33	204.94	0.00
GDN021	62	WI	421	0	3	0	0	11	898	11	898	0.03	81.64	2.13	0.00
GEN197	68	WI	762	1	10	758	0	55	10877	813	10877	0.07	197.76	14.27	0.99
GEN198	68	WI	271	1	5	267	0	271	64387	538	64387	1.00	237.59	237.59	0.99
GLA021	63	WI	75	0	2	0	0	4	330	4	330	0.05	82.50	4.40	0.00
GLM021	64	WI	475	0	21	0	0	1276	148509	1276	148509	2.69	116.39	312.65	0.00
GRV021	62	WI	105	3	8	312	0	15	1183	327	1183	0.14	78.87	11.27	2.97
GST021	60	WI	403	0	8	0	0	223	15865	223	15865	0.55	71.14	39.37	0.00
GST023	60	WI	569	0	13	0	0	85	7353	85	7353	0.15	86.51	12.92	0.00
GVA021	67	WI	313	3	13	930	618	325	16473	1255	17091	1.04	50.69	52.63	2.97
HAF001	67	WI	108	0	3	0	0	36	10732	36	10732	0.33	298.11	99.37	0.00
HAL062	65	WI	1615	0	19	0	0	1942	76520	1942	76520	1.20	39.40	47.38	0.00
HAL063	65	WI	1479	0	13	0	0	1791	72810	1791	72810	1.21	40.65	49.23	0.00
HAL072	65	WI	1144	0	21	0	0	1375	78093	1375	78093	1.20	56.79	68.26	0.00
HAL073	65	WI	409	0	5	0	0	121	5948	121	5948	0.30	49.16	14.54	0.00
HAY081	66	WI	647	3	7	1939	0	34	2641	1973	2641	0.05	77.68	4.08	3.00
HAY082	66	WI	1702	3	28	5070	0	637	64835	5707	64835	0.37	101.78	38.09	2.98
HER001	62	WI	142	10	11	1263	8	221	37689	1484	37697	1.56	170.54	265.42	8.89
HGN021	63	WI	6	5	2	30	0	12	2130	42	2130	2.00	177.50	355.00	5.00
HLA062	68	WI	1426	1	29	1	1	334	26446	335	26447	0.23	79.18	18.55	0.00
HLA071	68	WI	1211	0	19	0	0	215	11357	215	11357	0.18	52.82	9.38	0.00
HUR021	63	WI	374	0	3	0	0	19	1428	19	1428	0.05	75.16	3.82	0.00
HUR022	63	WI	862	1	19	669	3345	275	74067	944	77412	0.32	269.33	85.92	0.78
021	61	WI	539	2	16	24	48	161	20297	185	20345	0.30	126.07	37.66	0.04
022	61	WI	668	0	15	0	0	885	97240	885	97240	1.32	109.88	145.57	0.00
HWK021	61	WI	226	1	3	224	672	14	1043	238	1715	0.06	74.50	4.62	0.99
HWY021	62	WI	3	2	0	6	3	0	0	6	3	0.00	0.00	0.00	2.00
HYD031	65	WI	55	0	4	0	0	103	4157	103	4157	1.87	40.36	75.58	0.00
HYD032	65	WI	2546	3	62	4965	1	6984	656329	11949	656330	2.74	93.98	257.79	1.95
IHD021	63	WI	322	5	19	1603	0	721	74975	2324	74975	2.24	103.99	232.84	4.98

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

der	Div	Reg	Custs	Count Mom	Count Sust	Momentary Cust Ints	Momentary Cust Mins	Sustained Cust Ints	Sustained Cust Mins	Total Cust Ints	Total Cust Mins	SAIFI	CAIDI	SAIDI	MAIFI
J001	62	WI	3	6	0	18	0	0	0	18	0	0.00	0.00	0.00	6.00
IRB001	63	WI	149	1	1	149	0	1	99	150	99	0.01	99.00	0.66	1.00
IRP001	63	WI	3	1	0	3	0	0	0	3	0	0.00	0.00	0.00	1.00
IRW002	63	WI	562	0	3	0	0	10	768	10	768	0.02	76.80	1.37	0.00
IRW003	63	WI	531	0	9	0	0	114	8525	114	8525	0.21	74.78	16.05	0.00
IRW005	63	WI	315	0	8	0	0	22	1953	22	1953	0.07	88.77	6.20	0.00
JEF211	65	WI	97	0	4	0	0	12	919	12	919	0.12	76.58	9.47	0.00
JIM021	65	WI	355	1	12	5	5	205	30498	210	30503	0.58	148.77	85.91	0.01
JKS021	63	WI	4	5	2	20	0	8	1420	28	1420	2.00	177.50	355.00	5.00
KIN081	60	WI	448	5	20	1511	887	1011	77761	2522	78648	2.26	76.91	173.57	3.37
LAX062	68	WI	1840	3	17	5536	0	509	36746	6045	36746	0.28	72.19	19.97	3.01
LAX063	68	WI	1480	1	5	1486	0	114	5200	1600	5200	0.08	45.61	3.51	1.00
LAX065	68	WI	948	1	8	953	0	1975	32133	2928	32133	2.08	16.27	33.90	1.01
LAX067	68	WI	790	2	4	1573	0	218	45058	1791	45058	0.28	206.69	57.04	1.99
LAX074	68	WI	637	0	4	0	0	1267	9020	1267	9020	1.99	7.12	14.16	0.00
LAX075	68	WI	1600	2	14	2	2	398	57720	400	57722	0.25	145.03	36.08	0.00
LAX076	68	WI	1158	1	21	1155	0	3022	102929	4177	102929	2.61	34.06	88.89	1.00
LAX077	68	WI	739	2	23	2194	0	2345	36015	4539	36015	3.17	15.36	48.73	2.97
LDP001	61	WI	0	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
LKC081	60	WI	1246	0	25	0	0	1106	162147	1106	162147	0.89	146.61	130.13	0.00
LON061	65	WI	1299	0	7	0	0	86	11765	86	11765	0.07	136.80	9.06	0.00
LON062	65	WI	467	0	5	0	0	129	24560	129	24560	0.28	190.39	52.59	0.00
LON063	65	WI	204	0	2	0	0	2	339	2	339	0.01	169.50	1.66	0.00
LON071	65	WI	653	0	3	0	0	92	31380	92	31380	0.14	341.09	48.06	0.00
LON072	65	WI	702	0	6	0	0	79	9680	79	9680	0.11	122.53	13.79	0.00
LOY021	64	WI	960	1	21	958	0	284	28281	1242	28281	0.30	99.58	29.46	1.00
LOY022	64	WI	749	2	19	1496	0	886	122466	2382	122466	1.18	138.22	163.51	2.00
LPA001	62	WI	3	2	1	6	3	1	88	7	91	0.33	88.00	29.33	2.00
LUK021	60	WI	1022	3	11	3056	0	158	14596	3214	14596	0.15	92.38	14.28	2.99
''IP001	63	WI	3	6	2	18	3	6	861	24	864	2.00	143.50	287.00	6.00
)21	64	WI	255	0	6	0	0	34	3897	34	3897	0.13	114.62	15.28	0.00
.022	64	WI	415	0	8	0	0	439	25093	439	25093	1.06	57.16	60.47	0.00
MAD061	65	WI	315	0	2	0	0	18	1022	18	1022	0.06	56.78	3.24	0.00
MAD062	65	WI	929	2	20	24	93	400	71623	424	71716	0.43	179.06	77.10	0.03
MAD071	65	WI	729	1	9	1	1	194	27823	195	27824	0.27	143.42	38.17	0.00
MAD072	65	WI	2114	2	14	4222	0	260	13507	4482	13507	0.12	51.95	6.39	2.00
MAF061	68	WI	272	0	2	0	0	5	479	5	479	0.02	95.80	1.76	0.00
MAF062	68	WI	51	2	0	94	0	0	0	94	0	0.00	0.00	0.00	1.84
MAF063	68	WI	1544	0	13	0	0	192	6053	192	6053	0.12	31.53	3.92	0.00
MAF071	68	WI	1064	0	14	0	0	227	24796	227	24796	0.21	109.23	23.30	0.00
MAF072	68	WI	653	0	18	0	0	311	25506	311	25506	0.48	82.01	39.06	0.00
MCO001	63	WI	203	0	2	0	0	2	221	2	221	0.01	110.50	1.09	0.00
MCO021	63	WI	397	0	27	0	0	1237	154711	1237	154711	3.12	125.07	389.70	0.00
MDR021	66	WI	149	8	18	1032	0	113	12794	1145	12794	0.76	113.22	85.87	6.93
MEN021	66	WI	878	0	23	0	0	404	52546	404	52546	0.46	130.06	59.85	0.00
MEN022	66	WI	1542	1	37	1544	0	1889	56784	3433	56784	1.23	30.06	36.82	1.00
MEN023	66	WI	343	0	3	0	0	39	4530	39	4530	0.11	116.15	13.21	0.00
MEN032	66	WI	1774	0	35	0	0	1171	134318	1171	134318	0.66	114.70	75.71	0.00
MER021	67	WI	762	1	14	702	0	631	156107	1333	156107	0.83	247.40	204.86	0.92
MEY021	63	WI	3	5	1	15	0	3	294	18	294	1.00	98.00	98.00	5.00
MLN001	62	WI	596	2	6	1171	586	24	1808	1195	2394	0.04	75.33	3.03	1.96
MLS021	67	WI	515	3	14	1541	0	530	55664	2071	55664	1.03	105.03	108.09	2.99
MNR021	62	WI	95	2	4	186	94	72	5494	258	5588	0.76	76.31	57.83	1.96
MNR022	62	WI	110	3	6	225	116	79	5562	304	5678	0.72	70.41	50.56	2.05
MNT001	63	WI	822	1	20	825	0	451	55020	1276	55020	0.55	122.00	66.93	1.00
MRC021	63	WI	98	8	10	890	0	537	102255	1427	102255	5.48	190.42	1043.42	9.08
MRC022	63	WI	1510	11	89	12113	126	9219	1938680	21332	1938806	6.11	210.29	1283.89	8.02
MSE021	62	WI	29	2	1	58	29	29	4611	87	4640	1.00	159.00	159.00	2.00
NAP021	65	WI	516	1	8	516	0	31	3219	547	3219	0.06	103.84	6.24	1.00
NAP022	65	WI	1417	2	14	1404	1	96	7896	1500	7897	0.07	82.25	5.57	0.99
NEL021	66	WI	245	3	5	735	0	16	1322	751	1322	0.07	82.63	5.40	3.00
)21	62	WI	1057	0	19	0	0	475	39446	475	39446	0.45	83.04	37.32	0.00
J31	62	WI	1317	0	14	0	0	1164	100024	1164	100024	0.88	85.93	75.95	0.00
NLV021	64	WI	987	0	4	0	0	990	104044	990	104044	1.00	105.09	105.41	0.00
NLV031	64	WI	584	0	16	0	0	608	60675	608	60675	1.04	99.79	103.90	0.00
NLV032	64	WI	538	1	12	1	1	590	57213	591	57214	1.10	96.97	106.34	0.00
NRA001	63	WI	469	6	4	2817	469	491	47162	3308	47631	1.05	96.05	100.56	6.01
NSI001	63	WI	631	4	7	2518	0	1915	121014	4433	121014	3.03	63.19	191.78	3.99

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

der	Div	Reg	Custs	Count Mom	Count Sust	Momentary Cust Ints	Momentary Cust Mins	Sustained Cust Ints	Sustained Cust Mins	Total Cust Ints	Total Cust Mins	SAIFI	CAIDI	SAIDI	MAIFI
E021	62	WI	171	3	3	513	0	23	1623	536	1623	0.13	70.57	9.49	3.00
OLU021	62	WI	94	9	2	814	0	46	2269	860	2269	0.49	49.33	24.14	8.66
ONA061	68	WI	2244	1	32	1	1	1068	77676	1069	77677	0.48	72.73	34.61	0.00
ONA062	68	WI	937	0	5	0	0	124	15410	124	15410	0.13	124.27	16.45	0.00
OPK010	60	WI	347	0	2	0	0	2	127	2	127	0.01	63.50	0.37	0.00
OPY081	61	WI	611	1	17	580	0	49	4992	629	4992	0.08	101.88	8.17	0.95
OSC021	60	WI	1256	1	21	1221	0	1432	67273	2653	67273	1.14	46.98	53.56	0.97
OSC022	60	WI	701	1	24	724	0	969	55731	1693	55731	1.38	57.51	79.50	1.03
OSC031	60	WI	17	1	1	17	0	17	714	34	714	1.00	42.00	42.00	1.00
OTC021	65	WI	513	2	8	949	0	677	28675	1626	28675	1.32	42.36	55.90	1.85
OTC022	65	WI	1579	2	11	3131	0	122	8102	3253	8102	0.08	66.41	5.13	1.98
OTC023	65	WI	1370	5	4	5481	1	1395	13839	6876	13840	1.02	9.92	10.10	4.00
OTC031	65	WI	1709	2	23	38	166	705	41757	743	41923	0.41	59.23	24.43	0.02
OTC032	65	WI	1454	0	14	0	0	158	12130	158	12130	0.11	76.77	8.34	0.00
OWN021	64	WI	1236	1	17	8	16	463	48773	471	48789	0.37	105.34	39.46	0.01
PEP021	66	WI	898	2	34	1794	0	226	29990	2020	29990	0.25	132.70	33.40	2.00
PHL021	62	WI	743	0	6	0	0	14	1129	14	1129	0.02	80.64	1.52	0.00
PHL031	62	WI	1000	0	15	0	0	248	22573	248	22573	0.25	91.02	22.57	0.00
POK061	61	WI	789	2	9	1569	0	93	10126	1662	10126	0.12	108.88	12.83	1.99
POK062	61	WI	876	2	10	1754	0	45	6447	1799	6447	0.05	143.27	7.36	2.00
PRE021	60	WI	1280	3	33	2422	1	992	167336	3414	167337	0.78	168.69	130.73	1.89
PRE022	60	WI	629	3	11	1993	1330	50	5581	2043	6911	0.08	111.62	8.87	3.17
PRN021	62	WI	775	0	21	0	0	170	18698	170	18698	0.22	109.99	24.13	0.00
PRS563	65	WI	3	2	0	6	0	0	0	6	0	0.00	0.00	0.00	2.00
PRS565	65	WI	3	2	0	6	0	0	0	6	0	0.00	0.00	0.00	2.00
PSI021	63	WI	1256	6	90	292	1213	5244	1796638	5536	1797851	4.18	342.61	1430.44	0.23
PTW001	62	WI	310	9	11	2735	0	67	11183	2802	11183	0.22	166.91	36.07	8.82
RBL021	62	WI	137	3	2	408	0	2	446	410	446	0.01	223.00	3.26	2.98
RBL022	62	WI	175	3	2	525	0	2	113	527	113	0.01	56.50	0.65	3.00
RBL023	62	WI	659	3	4	1986	0	4	361	1990	361	0.01	90.25	0.55	3.01
022	66	WI	104	0	2	0	0	2	450	2	450	0.02	225.00	4.33	0.00
/023	66	WI	888	0	24	0	0	230	22873	230	22873	0.26	99.45	25.76	0.00
RCD024	66	WI	121	0	4	0	0	165	2206	165	2206	1.36	13.37	18.23	0.00
RCL021	61	WI	51	0	1	0	0	15	810	15	810	0.29	54.00	15.88	0.00
RCL031	61	WI	1362	0	56	0	0	729	66397	729	66397	0.54	91.08	48.75	0.00
RIC081	60	WI	2030	0	43	0	0	2665	293896	2665	293896	1.31	110.28	144.78	0.00
RIC082	60	WI	22	0	1	0	0	9	1305	9	1305	0.41	145.00	59.32	0.00
RID081	61	WI	536	2	13	1053	0	1051	167827	2104	167827	1.96	159.68	313.11	1.96
RID082	61	WI	734	2	12	736	2	1524	240866	2260	240868	2.08	158.05	328.16	1.00
RKL021	67	WI	725	2	33	699	1399	160	21986	859	23385	0.22	137.41	30.33	0.96
RSH081	60	WI	2135	3	24	6023	0	5196	456042	11219	456042	2.43	87.77	213.60	2.82
RSH091	66	WI	946	3	19	2827	0	1433	114957	4260	114957	1.51	80.22	121.52	2.99
RSH092	60	WI	305	3	4	873	0	425	34841	1298	34841	1.39	81.98	114.23	2.86
RSK021	66	WI	669	2	22	667	0	639	82119	1306	82119	0.96	128.51	122.75	1.00
RTL021	63	WI	1035	8	80	8286	0	6475	1312772	14761	1312772	6.26	202.74	1268.38	8.01
RTL022	63	WI	918	5	58	4672	0	6155	1052361	10827	1052361	6.70	170.98	1146.36	5.09
RVW021	65	WI	81	1	1	81	0	17	2499	98	2499	0.21	147.00	30.85	1.00
SAX001	63	WI	3	2	0	6	0	0	0	6	0	0.00	0.00	0.00	2.00
SCF024	60	WI	223	2	8	399	444	496	43755	895	44199	2.22	88.22	196.21	1.79
SCF025	60	WI	967	1	8	955	1910	1091	51122	2046	53032	1.13	46.86	52.87	0.99
SHW021	65	WI	262	0	9	0	0	63	2859	63	2859	0.24	45.38	10.91	0.00
SLD021	61	WI	281	1	6	282	0	309	53194	591	53194	1.10	172.15	189.30	1.00
SND021	61	WI	2517	4	98	2565	237	3275	507480	5840	507717	1.30	154.96	201.62	1.02
SOE001	62	WI	507	0	3	0	0	34	3854	34	3854	0.07	113.35	7.60	0.00
SPA021	67	WI	461	0	2	0	0	54	945	54	945	0.12	17.50	2.05	0.00
SPA022	67	WI	1432	2	28	2834	0	332	36553	3166	36553	0.23	110.10	25.53	1.98
SPA031	67	WI	1560	1	15	1	1	107	10114	108	10115	0.07	94.52	6.48	0.00
SPA032	67	WI	1783	0	38	0	0	887	345194	887	345194	0.50	389.17	193.60	0.00
SPE021	64	WI	1014	0	19	0	0	354	50609	354	50609	0.35	142.96	49.91	0.00
SPR021	66	WI	748	3	23	2234	0	1401	103387	3635	103387	1.87	73.80	138.22	2.99
SST061	62	WI	541	3	15	1619	0	59	6004	1678	6004	0.11	101.76	11.10	2.99
)62	62	WI	586	3	7	1754	0	53	7329	1807	7329	0.09	138.28	12.51	2.99
)81	64	WI	282	3	4	826	0	73	6456	899	6456	0.26	88.44	22.89	2.93
STA082	64	WI	719	3	3	2104	0	16	514	2120	514	0.02	32.13	0.71	2.93
STA083	64	WI	562	3	6	1660	0	58	8056	1718	8056	0.10	138.90	14.33	2.95
STM021	65	WI	522	0	5	0	0	160	10041	160	10041	0.31	62.76	19.24	0.00
STM022	65	WI	994	0	17	0	0	376	53413	376	53413	0.38	142.06	53.74	0.00
SUP021	63	WI	149	5	17	745	149	873	256438	1618	256587	5.86	293.74	1721.06	5.00

Xcel Energy North 2001 YE Feeder Reliability
All Levels Without Major Storms

der	Div	Reg	Custs	Count Mom	Count Sust	Momentary Cust Ints	Momentary Cust Mins	Sustained Cust Ints	Sustained Cust Mins	Total Cust Ints	Total Cust Mins	SAIFI	CAIDI	SAIDI	MAIFI
N001	62	WI	293	0	5	0	0	28	1265	28	1265	0.10	45.18	4.32	0.00
SWC061	68	WI	355	3	1	1060	0	3	912	1063	912	0.01	304.00	2.57	2.99
SWC062	68	WI	12	3	0	36	0	0	0	36	0	0.00	0.00	0.00	3.00
SWC071	68	WI	254	4	3	765	1	269	17647	1034	17648	1.06	65.60	69.48	3.01
SWC072	68	WI	1180	3	11	3539	0	301	20201	3840	20201	0.26	67.11	17.12	3.00
SXF021	63	WI	204	5	12	1020	204	824	161954	1844	162158	4.04	196.55	793.89	5.00
TAD021	61	WI	334	0	9	0	0	438	43183	438	43183	1.31	98.59	129.29	0.00
TCN081	64	WI	2062	1	26	2063	0	117	5027	2180	5027	0.06	42.97	2.44	1.00
TCN091	64	WI	947	0	20	0	0	657	99991	657	99991	0.69	152.19	105.59	0.00
TCN092	64	WI	2127	0	14	0	0	45	2620	45	2620	0.02	58.22	1.23	0.00
TLA001	63	WI	1	5	2	5	0	2	355	7	355	2.00	177.50	355.00	5.00
TRE021	67	WI	18	0	1	0	0	1	336	1	336	0.06	336.00	18.67	0.00
TRL081	61	WI	828	1	22	1095	0	1052	219922	2147	219922	1.27	209.05	265.61	1.32
TRL082	61	WI	352	1	3	82	0	27	1799	109	1799	0.08	66.63	5.11	0.23
TRP021	64	WI	505	3	18	1497	0	204	32616	1701	32616	0.40	159.88	64.59	2.96
TRP022	64	WI	911	3	6	2745	0	94	9669	2839	9669	0.10	102.86	10.61	3.01
TRX021	65	WI	979	0	39	0	0	1006	85723	1006	85723	1.03	85.21	87.56	0.00
TRX022	65	WI	746	0	13	0	0	257	9867	257	9867	0.34	38.39	13.23	0.00
TRX031	65	WI	77	0	6	0	0	19	956	19	956	0.25	50.32	12.42	0.00
TRX032	65	WI	1804	0	19	0	0	470	46117	470	46117	0.26	98.12	25.56	0.00
TRX033	65	WI	366	0	2	0	0	32	2618	32	2618	0.09	81.81	7.15	0.00
TST001	62	WI	300	0	2	0	0	10	954	10	954	0.03	95.40	3.18	0.00
TUR021	60	WI	290	0	1	0	0	1	48	1	48	0.00	48.00	0.17	0.00
TUR022	60	WI	344	0	2	0	0	2	329	2	329	0.01	164.50	0.96	0.00
TWN021	63	WI	693	6	17	3463	694	2834	246679	6297	247373	4.09	87.04	355.96	5.00
TWN022	63	WI	676	6	34	3380	677	2566	181858	5946	182535	3.80	70.87	269.02	5.00
TWT081	60	WI	1116	3	18	2207	5	541	31040	2748	31045	0.48	57.38	27.81	1.98
UPS001	63	WI	45	1	0	45	135	0	0	45	135	0.00	0.00	0.00	1.00
USR533	65	WI	6	0	1	0	0	1	177	1	177	0.17	177.00	29.50	0.00
V001	62	WI	282	0	1	0	0	1	41	1	41	0.00	41.00	0.15	0.00
02	67	WI	496	0	2	0	0	501	37350	501	37350	1.01	74.55	75.30	0.00
003	67	WI	894	0	9	0	0	1582	151820	1582	151820	1.77	95.97	169.82	0.00
VIR061	67	WI	1316	1	30	1303	0	2786	234153	4089	234153	2.12	84.05	177.93	0.99
WAF001	63	WI	3	1	0	3	0	0	0	3	0	0.00	0.00	0.00	1.00
WBI021	62	WI	3	3	0	9	0	0	0	9	0	0.00	0.00	0.00	3.00
WBN021	62	WI	837	3	8	2498	0	134	29768	2632	29768	0.16	222.15	35.57	2.98
WBN022	62	WI	444	3	14	1307	0	186	99232	1493	99232	0.42	533.51	223.50	2.94
WDB001	63	WI	7	0	3	0	0	3	554	3	554	0.43	184.67	79.14	0.00
WDM081	61	WI	743	2	28	1481	0	1879	250630	3360	250630	2.53	133.38	337.32	1.99
WHH022	67	WI	563	0	12	0	0	39	2823	39	2823	0.07	72.38	5.01	0.00
WHH023	67	WI	752	0	12	0	0	61	11252	61	11252	0.08	184.46	14.96	0.00
WHR021	62	WI	152	2	12	298	0	542	44008	840	44008	3.57	81.20	289.53	1.96
WHR022	62	WI	225	2	11	441	0	116	6922	557	6922	0.52	59.67	30.76	1.96
WHR023	62	WI	243	2	21	468	0	464	100300	932	100300	1.91	216.16	412.76	1.93
WIB569	65	WI	1271	4	41	3715	1	3187	332885	6902	332886	2.51	104.45	261.91	2.92
WLR081	60	WI	654	0	13	0	0	468	35908	468	35908	0.72	76.73	54.91	0.00
WLR082	60	WI	2232	1	19	1	1	296	18142	297	18143	0.13	61.29	8.13	0.00
WLR091	60	WI	2487	0	18	0	0	138	10402	138	10402	0.06	75.38	4.18	0.00
WLR092	60	WI	3759	5	30	18709	0	407	70059	19116	70059	0.11	172.14	18.64	4.98
WND081	66	WI	271	0	10	0	0	354	31616	354	31616	1.31	89.31	116.66	0.00
WSM081	67	WI	1239	1	27	1200	2400	126	14193	1326	16593	0.10	112.64	11.46	0.97
WSM091	67	WI	1976	4	32	5855	3895	2198	116668	8053	120563	1.11	53.08	59.04	2.96
WSM092	67	WI	1092	1	11	1085	2170	124	7177	1209	9347	0.11	57.88	6.57	0.99
WTH001	61	WI	0	2	0	6	0	0	0	6	0	0.00	0.00	0.00	0.00
WTL061	61	WI	1292	1	16	1	1	1436	91530	1437	91531	1.11	63.74	70.84	0.00
WTL062	61	WI	1113	0	16	0	0	105	11706	105	11706	0.09	111.49	10.52	0.00
YLR081	61	WI	3	0	1	0	0	1	12	1	12	0.33	12.00	4.00	0.00
YLR082	61	WI	1080	2	18	3	11	1270	66203	1273	66214	1.18	52.13	61.30	0.00

TAB 2

List of Worst Performing Circuits

List of Worst Performing Circuits

PSC 113.0604(2)(b)

Attached is a listing of NSPW's worst performing circuits based on SAIFI, SAIDI and CAIDI and corresponding work plans containing the actions to be undertaken to remedy the conditions responsible for the rating.

Xcel Energy Contact :

Name	Phone	Email
David A. Clark	(612) 330-1901	david.a.clark@xcelenergy.com

TAB 2.1

Worst Performing Feeder and Tap Criteria Development

Xcel Energy
Worst Performing Feeder & Tap Criteria Development

Criteria to be met:

Worst performing feeders should be based on both momentary and sustained outages. (MAIFI and SAIFI)

Meet Xcel corporate SAIDI, SAIFI, MAIFI, and CEMI (normalized) goals.

Xcel List Development:

Circuits that satisfy any of the following criteria will be classified as Worst Performers:

- Feeders with greater than or equal to 250,000 customer minutes of outage
- Feeders with MAIFI greater than or equal to 5.0
- Feeders with SAIFI greater than or equal to 5.0
- Taps with greater than or equal to 200,000 customer minutes of outage
- Taps with SAIFI greater than or equal to 6.0

- Check company-wide, storm normalized
- Feeder list output should show feeder, number of sustained feeder outages, number of momentary outages, SAIFI, SAIDI, and CAIDI
- Tap list output should show POI#, number of sustained outages, SAIFI, SAIDI, and CAIDI

Anne M. Adrian 11/14/00

TAB 2.2

Worst Performing Feeders

Xcel Energy Inc.'s Worst Performing Feeders in Wisconsin

12 Month-Rolling Ending October 2001, Mainline(Feeder Level Only), Excluding Storms

Feeder	Div	Reg	Cust Serv	Area Engineer	# Mom	# Sus	Mom CI	Mom CM	Sus CI	Sus CM	Tot CI	Tot CM	MAIFI	SAIFI	CAIDI	SAIDI
WIB569	65	WI	1255	Bob Molde or Jean Waltz	0	3	0	0	3771	379861	3771	379861	0.00	3.00	100.73	302.68
HYD032	65	WI	2491	Bob Molde or Jean Waltz	1	2	2436	0	4870	316526	7306	316526	0.98	1.96	65.00	127.07

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Feeder – WIB569
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
10/1/00	0825	1/51	Feeder	Public Damage
4/10/01	2134	00/00	Transmission	Wind & Lightning
5/17/01	0254	00/00	Transmission	Unknown
6/11/01	1844	00/00	Transmission	Wind & Lightning
6/13/01	0504	00/00	Transmission	Wind & Lightning
6/21/01	0150	00/00	Transmission	Wind & Lightning
7/17/01	0411	00/00	Transmission	Wind & Lightning
7/22/01	1025	2/07	Feeder	Lightning arrester failure
7/31/01	2131	1/ 04	Feeder	Overload
8/1/01	0626	4/27	Substation	Transformer Failure
9/07/01	1046	00/00	Transmission	Wind & Lightning

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1						
2						
4						

No action required. 7 of 11 outages were transmission momentaries due to wind & lightning. The outages on 7/31 & 8/1 were due to the Hydro Lane transformer #2 failure. The feeder is in good condition.

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Feeder – HYD032
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
7/21/01	0957	00/00	Feeder	Wind & Lightining
7/31/01	2131	01/04	Feeder	Overload
8/1/01	0626	07/12	Substation	Transformer Failure
10/1/00	0825	01/06	Feeder	Public Damage

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1						
2						
4						
5						
6						
7						
8						
9						
10						
11						

No action required. The 7/31/01 & 8/1/01 outages were due to the Hydro Lane transformer #2 failure. The feeder is in good condition.

TAB 2.3

Worst Performing Points of Interest (POI)

Xcel Energy Inc.'s Worst Performing POI's in Wisconsin

12 Month-Rolling Ending October 2001, Below Feeder Level Only, Excluding Storms, Excluding Cust Equipment

Feeder	POI	Div	Reg	Cust Serv	Area Engineer	# Mom	# Sus	Mom CI	Mom CM	Sus CI	Sus CM	Tot CI	Tot CM	MAIFI	SAIFI	CAIDI	SAIDI
SPA032	LSJ093	67	WI	138	Bob Molde or Jean Waltz	0	2	0	0	275	247384	275	247384	0.00	1.99	899.58	1792.64
HYD032	ECW106	65	WI	657	Bob Molde or Jean Waltz	0	1	0	0	657	210240	657	210240	0.00	1.00	320.00	320.00
AUG022	EFE030	65	WI	685	Bob Molde or Jean Waltz	0	1	0	0	685	146590	685	146590	0.00	1.00	214.00	214.00
PSI021	RWP131	63	WI	244	Bob Molde or Jean Waltz	0	4	0	0	975	331168	975	331168	0.00	4.00	339.66	1357.25
BYF021	RAI036	62	WI	482	Bob Molde or Jean Waltz	0	2	0	0	964	164362	964	164362	0.00	2.00	170.50	341.00
BYF021	RAL004	62	WI	450	Bob Molde or Jean Waltz	0	2	0	0	900	160200	900	160200	0.00	2.00	178.00	356.00
BKD021	RAW041	62	WI	125	Bob Molde or Jean Waltz	0	4	0	0	498	115765	498	115765	0.00	3.98	232.46	926.12
BYF021	RAK206	62	WI	659	Bob Molde or Jean Waltz	0	1	0	0	659	115325	659	115325	0.00	1.00	175.00	175.00
SND021	RHT403	61	WI	172	Bob Molde or Jean Waltz	0	4	0	0	688	127263	688	127263	0.00	4.00	184.98	739.90
TRL081	RLJ933	61	WI	172	Bob Molde or Jean Waltz	0	3	0	0	515	106388	515	106388	0.00	2.99	206.58	618.53
LKC081	AKP266	60	WI	885	Bob Molde or Jean Waltz	0	1	0	0	885	132639	885	132639	0.00	1.00	149.87	149.87
RIC081	ANS225	60	WI	1246	Bob Molde or Jean Waltz	0	1	0	0	1246	108402	1246	108402	0.00	1.00	87.00	87.00

TAB 2.4

Worst Performing Work Plans

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – LSJ093
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
6/11/01	2154	3/51	OH Primary	Wind
6/17/01	2223	9/22	OH Primary	Tree Contact
6/17/01	2230	21/00	OH Primary	Wind & Lightning

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	Patrolled tap	Ed Auth	11/19/01	11/19/01	Looked for tree problems, long spans, arresters, etc. No problems found, line was rebuilt recently through Angelo	Done.
2	DDS escalation correction. Outages escalating to wrong device.	Kaye Crook	11/20/01	11/20/01	Correct DDS so outages escalate to LSA077	Done

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – ECW106
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
6/11/01	1935	10/05	OH Primary	Wind & Lightning
6/11/01	2021	20/39	OH Primary	Tree Contact
7/31/01	1715	5/20	OH Primary	Overload

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	No obvious actions required					

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – EFE030
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
7/22/01	1026	3/34	OH Primary	Lightning

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	Add squirrel guards where necessary.	Ron Nykanen	01/01/02	3/15/02		

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – RWP131
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
10/6/00	1956	2/48	OH Primary	Tree Contact
4/23/01	2316	5/14	OH Primary	Tree Contact
6/25/01	2207	3/48	OH Primary	Tree Contact
9/6/01	1520	12/15	OH Primary	Lightning

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	Tree trimming scheduled for 2002.- Tree contacts from trees off R/W	Tree Clearance department	1/02	6/02	Tree trimming completed.	
2						

This line was rebuilt about 4 years ago.

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – RAI036
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
10/19/00	1342	3/16	OH Primary	Tree Contact
10/19/00	1703	2/25	OH Primary	Tree Contact

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	Trees from off R/W				No action	
2	Scheduled for tree trimming in 2003.				No action	

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – RAL004
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
8/1/01	1812	3/23	OH Primary	Public Damage
8/1/01	1729	4/06	OH Primary	Public Damage
8/8/01	0651	2/09	OH Primary	Wind
8/8/01	0648	3/47	OH Primary	Wind & LIghtning

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	Correct dds – 2-duplicate outages 8/1 & 8/8/01	Tom Koleski	12/01/01	12/15/01	Reduce number of outages to two.	Done
2						

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – RAW041
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
10/13/00	2120	5/31	OH Primary	Tree Contact
2/25/01	0609	1/36	OH Primary	Insulator Failure
6/29/01	2253	3/37	OH Primary	Tree Contact
6/29/01	2311	3/19	OH Primary	Tree Contact

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	Correct DDS- 6/19/01 same outage	Tom Koleski	12/01/01	12/15/01	Reduce outages by 3 hours 19 min.	Done
2	Tree trimming in 2002 – R/W looks OK. Trees from off R/W fall in the lines.	Tree Clearance department	1/01/02	6/01/02	Tree trimming completed.	

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – RAK206
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
8/12/01	0720	2/55	OH Primary	Tree Contact

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	Fuse CSP's / squirrel guard in Bayfield	Dave Zak	1/01/02	4/01/02		
2	Tree trimming scheduled for 2003. R/W looks OK					

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – RHT403
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
11/27/00	0848	1/19	OH Primary	Overload
6/11/01	1913	14/18	OH Primary	Wind & Lightning
6/19/01	0211	4/39	OH Primary	Wind & Lightning
6/19/01	0204	4/15	OH Primary	Wind & Lightning
6/19/01	0336	3/14	OH Primary	Wind & Lightning

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	Correct dds – 6/19/01 was the same outage, 3 OCRS	Tom Koleski	12/01/01	12/15/01	DDS correction- 7hr reduction	Done
2	Install bullet resistant insulators at water crossing.	Paul Randby	1/01/02	3/01/02	Insulators changed.	
3	Replace disconnects at RHO384 w/sect or ocrs.	Paul Randby	1/01/02	3/01/02	Reduce # of customers impacted	

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – RLJ933
Project Manager: Bob Molde

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
6/11/01	1911	71/04	OH Primary	Tree Contact
6/11/01	2017	69/58	OH Primary	Tree Conact
6/12/01	0534	6/41	OH Primary	Tree Contact
6/15/01	0611	3/49	OH Primary	Wind
8/29/01	1809	4/25	OH Primary	Public Damage
8/29/01	2246	00/34	OH Primary	Recloser Failure

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	Line rebuilt after June storm.		06/01	07/01		Complete
2	Recloser damaged by lightning; was replaced		08/01	08/01		Complete
3	No action required.					

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – AKP266 on Feeder LKC081
Project Manager: Ed Auth

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
6/12/01	1431	24/58	A, OH Primary	Wind & Lightning
6/12/01	0526	8/54	A, OH Primary	Wind & Lightning
6/12/01	0529	5/01	B, OH Primary	Wind & Lightning
6/14/01	0831	4/05	BC, OH Primary	Tree Contact
9/18/01	1652	2/30	ABC, OH Primary	Public Damage

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	Field reviewed lightning protection, line condition, and tree issues.	Ed Auth	11/29/01	11/29/01	Line is the old 35 kV construction and thas been retrofitted with lightning protection. Tree clearance adequate.	Done
2	Field reviewed pole that was public damaged.	Ed Auth	11/29/01	11/29/01	Pole is in proper location. Vehicle would have to leave road and go down embankment to hit it.	Done

OVERALL WORST PERFORMER WORK PLAN

Project Title: Worst Performing Tap – ANS225 on Feeder RIC081
Project Manager: Ed Auth

Outage History (10/01/00 thru 09/30/01)

Date	Time	Duration	Level	Cause
9/29/01	0340	1/27	OH Primary	Public Damage

Workplan

#	Major Task	Responsible / Involved	Start Date	End Date	Milestones & Deliverables	Status
1	Field reviewed line.	Ed Auth	11/29/01		Line is old 35 kV construction. Two switches (ANS226 and ANS224) need arresters and pole wrap. ANS228 needs pole wrap.	Refereed to Operating/Design on 1/2/02

TAB 3

Alternative Criteria Ranking

Alternative Criteria Ranking

PSC 113.0604(2)(c)

Attached as Tab 2 is a listing of NSPW's worst performing circuits based on SAIFI, SAIDI and CAIDI. No alternative ranking criteria was used.

Xcel Energy Contact :

Name	Phone	Email
David A. Clark	(612) 330-1901	david.a.clark@xcelenergy.com

TAB 4

Accomplishment of Improvements Proposed in Prior Years

Accomplishment of Improvements Proposed in Prior Years

PSC 113.0604(2)(d)

All projects and work plans associated with the worst performers in 2000 have been completed. None of the worst performers from 2000 appear as a worst performer in 2001.

Xcel Energy Contact :

Name	Phone	Email
David A. Clark	(612) 330-1901	david.a.clark@xcelenergy.com

TAB 5

New Reliability or Power Quality Programs

New Reliability or Power Quality Programs

PSC 113.0604(2)(e)

NSPW currently has field engineers who work with customers to address power quality issues. Field representatives work with customers to determine from which side of the meter the issue might originate. If on the utility side of the meter, appropriate action is taken to address the cause. If it is determined that the source or cause of the problem is on the customer's side of the meter, the NSPW field representatives work with the customers to identify available parties who might assist the customer to determine the source and correct the problem.

NSPW previously conducted limited power quality analyses at the customer's request on the customer's side of the meter. Those fee based power quality services and investigations are now offered by Xcel Energy Retail Services Group Inc.

Xcel Energy Contact :

Name	Phone	Email
Brian D. Amundson	(715) 839-4645	brian.d.amundson@xcelenergy.com

TAB 6

Long Range Distribution Plans

Long Range Distribution Plans

PSC 113.0604(2)(f)

Attached is a list of the capacity related distribution projects currently planned for the years 2002, 2003 and 2004, a short description of each, and their estimated associated costs.

Xcel Energy Contact :

Name	Phone	Email
Robert E. Molde	(715) 839-13514488	robert.e.molde@xcelenergy.com

Xcel Energy Wisconsin Distribution
Capacity Related Projects 2002 - 2004

Project description	2002	2003	2004	Total
Osseo Area Substation distribution portion	$ 75,000	$ -	$ -	$ 75,000
Doughty Rd. Dist. feeder voltage conversion	$ 581,124	$ -	$ -	$ 581,124
Hawkins Conversion	$ 120,000	$ -	$ -	$ 120,000
US Rubber Increase capacity		$ 3,420	$ 198,000	$ 201,420
Cameron replace transformer	$ 345,000		$ -	$ 345,000
Conrath Substation transfer load & remove	$ 50,000		$ -	$ 50,000
Viroqua Upgrade 69 KV bus to 1200 amps, VIR 061 Fdr	$ 234,835			$ 234,835
Somerset - New sub	$ -	$ 416,553	$ -	$ 416,553
Somerset new sub(dist work)		$ 77,852	$ 80,279	$ 158,131
Willow River north feeder	$ -	$ -	$ 200,000	$ 200,000
Griffen St 3rd feeder	$ -	$ 125,000		$ 125,000
Durand 69 kV Substation, upgrade 7MVA to 14 MVA		$ 350,000		$ 350,000
Greenwood 69 kV 14 MVA Substation		$ 700,000		$ 700,000
Greenwood Distribution Feeder work		$ 100,000		$ 100,000
Neillsville 69 kV Substation ugrade 10.5 MVA to 28 MVA			$ 600,000	$ 600,000
Onalaska 69 kV Substation relief from W. Salem 23.5 kv			$ 200,000	$ 200,000
Osceola 69 kV Substation OSC 021 load relief		$ 50,000		$ 50,000
Spencer 69 kV Substation new feeder SPE 022		50,000	$ 300,000	$ 350,000
Spencer 69 kV Substation upgrade from 10.5 - 28 MVA			$ 600,000	$ 600,000
Viroqua feeder VIR 062 Fdr bay			250,000	$ 250,000
Viroque 062 new feeder work			70,000	$ 70,000
	$ 1,405,959	$ 1,872,825	$ 2,498,279	$ 5,777,063

TAB 7

Route Miles of Reconstructed Lines

Route Miles of Reconstructed Lines

PSC 113.0604(3)(a)

Route miles of reconstructed lines for year 2001.

Miles	Phase	Overhead vs. Underground
44 miles	1 – phase	Overhead
39 miles	3 – phase	Overhead
12 miles	1 – phase	Underground
6 miles	3 – phase	Underground

Xcel Energy Contact :

Name	Phone	Email
Robert E. Molde	(715) 839-1351	robert.e.molde@xcelenergy.com

TAB 8

Route Miles by Voltage

Route Miles by Voltage

PSC 113.0604(3)(b)

Route miles by voltage for year 2001.

	Voltage	Miles	Percent
	4.16 kV	465	5%
	12.47 kV and 13.8 kV	6,692	73%
	23.9 kV	2,043	22%
Total		9,200	100%

The number of route miles is not specifically kept by voltage. The about are estimates based on the 9,200 route miles in service on 12/31/2001.

Xcel Energy Contact :

Name	Phone	Email
Robert E. Molde	(715) 839-1351	robert.e.molde@xcelenergy.com

TAB 9

Average Monthly Speed of Answer

Average Monthly Speed of Answer

PSC 113.0604(3)(c)

The overall average speed of answer (ASA) for customer service calls including billing problems, outages, and emergencies for year 2001 was 53 seconds. This calculation uses the average speed of answer as defined in § PSC 113.0503(1) (b).

The year 2001 monthly average speed of answer for billing problems, outages and emergencies were:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Billing	132	49	24	43	30	35	12	13	8	10	16	23
Outages	139	71	38	136	58	157	98	99	17	28	89	36
Emergencies	12	8	3	13	10	2	5	5	3	4	4	8

Xcel Energy Contact :

Name	Phone	Email
Jason S. Perreria	(651) 639-4386	jason.s.perreria@xcelenergy.com

TAB 10

Average Days to Energize Service

Average Days to Energize Service

PSC 113.0604(3)(d)

The average days to energize service for 2001 is calculated by comparing the mutually agreed-to day the customer has indicated the project will be ready for service and the actual completion date the service was installed as entered into the project management software.

	Month	Electric Connections	Days	Average Days
1	January	150	1,863	12.4
2	February	73	1,190	16.3
3	March	71	643	9.1
4	April	80	527	6.6
5	May	260	1,399	5.4
6	June	268	1,193	4.5
7	July	494	1,912	3.9
8	August	335	1,653	4.9
9	September	310	2,047	6.6
10	October	404	2,180	5.4
11	November	441	3,579	8.1
12	December	471	2,579	5.5
Year 2001 Total		3,357	20,764	6.2

Xcel Energy Contact :

Name	Phone	Email
Larry A. Keithahn	(612) 630-4280	larry.a.keithahn@xcelenergy.com

TAB 11

Written and Telephone Complaints

Written and Telephone Complaints

PSC 113.0604(3)(e)

A table of the written and telephone complaints by month for the year 2001 is attached.

Xcel Energy Contact :

Name	Phone	Email
Denae Eslinger	(715) 838-4150	denae.eslinger@xcelenergy.com

PSCW Categ	Year 2001	Jan 2001	Feb 2001	Ma. 1	Apr 2001	May 2001	Jun 2001	Jul 2001	Aug 2001	Sep 2001	Oct 2001	Nov 2001	Dec 2001
Billing	47	4	5	6	3	5	3	3	3	4	5	4	2
Other	64	1	2	4	6	8	7	6	7	8	13	1	1
Outage	4	0	0	0	0	1	1	0	0	0	2	0	0
Total	115	5	7	10	9	14	11	9	10	12	20	5	3

PSCW Category	Inquiry Type	Year 2001	Jan 2001	Feb 2001	Mar 2001	Apr 2001	May 2001	Jun 2001	Jul 2001	Aug 2001	Sep 2001	Oct 2001	Nov 2001	Dec 2001
Billing	Budget Billing	2							1			1		
Billing	Credit Policy	5	1	1				1			1	1		
Billing	Deposit - Commercial	3		1					1				1	
Billing	Deposit - Residential	2						1			1			
Billing	Disputed Prorate	2		1			1							
Billing	Disputed Transfer/Benefit of Service	10			3		2	1		1		1	1	1
Billing	Estimate/No Meter Reading - Electric	2			1						1			
Billing	Estimate/No Meter Reading - Gas	2		1	1									
Billing	High Bill-Electric	3	1							1	1			
Billing	High Bill-Gas	3	2	1										
Billing	Meter Reading Error-Electric	1				1								
Billing	Payment Posting	2										2		
Billing	Rate Application Dispute	1								1				
Billing	Rate Issue	4			1								2	1
Billing	Shared Meter	1				1								
Billing	Tenant Change/Contracts	4				1	2		1					
Other	Area/Street Light Maintenance	1										1		
Other	Damage Claim-Shut Off Delinquent	1										1		
Other	Dead Meter	4		1	1							2		
Other	Gas Transportation	1	1											
Other	Marketing Program(s)	1							1					
Other	Meter Change	1										1		
Other	Meter Set	1					1							
Other	Notice - Broken Arrangements	3				1		1	1					
Other	Notice - Reminder	1		1										
Other	Other Policy	1					1							
Other	Requested/Refused	23			1	2	5	3		3	4	3	1	1
Other	Saver's Switch Repair	3							2	1				
Other	Service Extension-Gas and Electric	1			1									
Other	Service Work Quality	1									1			
Other	Shut Off Delinquent	19				3	1	3	1	3	3	5		
Other	Switched Meters	1			1									
Other	Complaint	1							1					
Outage	Electric Outage	3						1				2		
Outage	Electric Outage - Frequency Issue	1					1							
Total		115	5	7	10	9	14	11	9	10	12	20	5	3

TAB 12

Annual Tree Trimming Budget and Expenses

Annual Tree Trimming Budget and Expenses

PSC 113.0604(3)(f)

The Wisconsin total annual expenditure budget for tree trimming in 2001 was $4,514,808, while actual expenditures for the same period totaled $4,838,587. These dollars include distribution and transmission line clearance maintenance as well as departmental overheads.

Xcel Energy Contact :

Name	Phone	Email
Randy L. Davis	(715) 838-2339	randy.l.davis@xcelenergy.com

TAB 13

Projected and Actual Distribution Miles Trimmed

Projected and Actual Distribution Miles Trimmed

PSC 113.0604(3)(g)

The distribution line miles projected to be trimmed during 2001 were 2,504 miles. At year-end of 2001, a total of 2,450 miles were actually trimmed.

Xcel Energy Contact :

Name	Phone	Email
Randy L. Davis	(715) 838-2339	randy.l.davis@xcelenergy.com