

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Afton	AFT314	0.3	Thermal for Gen - min	2.79	Breaker Relay Reduction of Reach - max		16,691		9,040	524	277	256	127
Afton	AFT315	0.2	Thermal for Gen - min	1.54	Breaker Relay Reduction of Reach - max		16,691		7,900	524	277	267	150
Afton	AFT321	0	Additional Element Fault Current - min	0.03	Breaker Relay Reduction of Reach - max		12,745		9,173	452	1157	380	1119
Afton	AFT322	0	Thermal for Gen - min	2.86	Reverse Power Flow - max		12,745		3,799	452	1157	72	38
Arden Hills	AHI021	0.3	Primary Over-Voltage - min	0.3	Primary Over-Voltage - max		5,580		2,047	194	215	72	53
Arden Hills	AHI022	0.11	Unintentional Islanding - min	0.3	Primary Over-Voltage - max		5,580		1,392	194	215	65	114
Arden Hills	AHI024	0.3	Primary Over-Voltage - min	0.3	Primary Over-Voltage - max		5,580		2,907	194	215	58	0
Arden Hills	AHI025	0.3	Primary Over-Voltage - min	0.3	Primary Over-Voltage - max		5,580		2,489	194	215	0	48
Arden Hills	AHI063	0.04	Unintentional Islanding - min	3.03	Reverse Power Flow - max		3,121		3,121	77	26	77	26
Airport	AIR060	0.3	Thermal for Gen - min	1.52	Reverse Power Flow - max		9,358		1,096	0	0	0	0
Airport	AIR061	0.9	Reverse Power Flow - min	0.9	Reverse Power Flow - max		9,358		1,807	0	0	0	0
Airport	AIR069	0.9	Primary Over-Voltage - min	1.01	Reverse Power Flow - max		9,358		1,245	0	0	0	0
Airport	AIR072	1.29	Reverse Power Flow - min	1.29	Reverse Power Flow - max		10,131		1,601	0	0	0	0
Airport	AIR073	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		10,131		1,116	0	0	0	0
Airport	AIR074	1.36	Reverse Power Flow - min	1.36	Reverse Power Flow - max		10,131		5,272	0	0	0	0
Airport	AIR077	1.4	Primary Over-Voltage - min	1.7	Reverse Power Flow - max		10,131		2,557	0	0	0	0
Airport	AIR078	0.21	Reverse Power Flow - min	0.21	Reverse Power Flow - max		10,131		922	0	0	0	0
Airport	AIR079	1.34	Reverse Power Flow - min	1.34	Reverse Power Flow - max		10,131		100	0	0	0	0
Airport	AIR62X	1.1	Thermal for Gen - min	1.49	Reverse Power Flow - max		9,358		1,012	0	0	0	0
Airport	AIR62Y	0	Reverse Power Flow - min	0	Reverse Power Flow - max		9,358		1,012	0	0	0	0
Albany	ALB021	0.05	Unintentional Islanding - min	1.26	Reverse Power Flow - max		2,582		2,107	10134	4035	42	3016
Albany	ALB022	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		2,582		1,342	10134	4035	92	1019
Albany	ALB023	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		2,582		303	10134	4035	10000	0
Aldrich	ALD072	0.5	Thermal for Gen - min	1.5	Reverse Power Flow - max		7,889		2,363	302	89	68	16
Aldrich	ALD073	0.15	Reverse Power Flow - min	0.15	Reverse Power Flow - max		7,889		3,178	302	89	111	17
Aldrich	ALD075	1.15	Reverse Power Flow - min	1.15	Reverse Power Flow - max		7,889		351	302	89	0	0
Aldrich	ALD076	0.2	Thermal for Gen - min	1.25	Breaker Relay Reduction of Reach - max		7,889		2,571	302	89	115	56
Aldrich	ALD081	0.62	Reverse Power Flow - min	0.62	Reverse Power Flow - max		18,182		671	395	490	0	0
Aldrich	ALD082	0.9	Thermal for Gen - min	1.32	Reverse Power Flow - max		18,182		2,121	395	490	57	254
Aldrich	ALD083	0.1	Thermal for Gen - min	0.91	Breaker Relay Reduction of Reach - max		18,182		1,663	395	490	6	3
Aldrich	ALD084	0.9	Thermal for Gen - min	1.17	Reverse Power Flow - max		18,182		2,162	395	490	74	93
Aldrich	ALD085	0.09	Unintentional Islanding - min	1.71	Reverse Power Flow - max		18,182		2,844	395	490	102	95
Aldrich	ALD086	0.5	Primary Over-Voltage - min	1.8	Reverse Power Flow - max		18,182		806	395	490	0	18
Aldrich	ALD087	0.81	Reverse Power Flow - min	0.81	Reverse Power Flow - max		18,182		2,203	395	490	0	0
Aldrich	ALD088	0.12	Unintentional Islanding - min	1.7	Reverse Power Flow - max		18,182		1,663	395	490	157	28
Aldrich	ALD091	0.71	Reverse Power Flow - min	0.71	Reverse Power Flow - max		18,828		1,218	174	1414	34	0
Aldrich	ALD092	0.9	Thermal for Gen - min	2.62	Reverse Power Flow - max		18,828		5,332	174	1414	42	0
Aldrich	ALD093	0.43	Reverse Power Flow - min	0.43	Reverse Power Flow - max		18,828		561	174	1414	4	10
Aldrich	ALD094	0.9	Thermal for Gen - min	1.14	Reverse Power Flow - max		18,828		1,814	174	1414	0	960
Aldrich	ALD095	0.9	Thermal for Gen - min	1.53	Reverse Power Flow - max		18,828		2,777	174	1414	32	13
Aldrich	ALD096	0.5	Thermal for Gen - min	1.37	Reverse Power Flow - max		18,828		1,218	174	1414	0	240

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Aldrich	ALD097	0.9	Thermal for Gen - min	1.4	Reverse Power Flow - max		18,828		2,404	174	1414	63	191
Aldrich	ALD098	0.5	Thermal for Gen - min	0.99	Reverse Power Flow - max		18,828		561	174	1414	0	0
Air Lake	ALK063	0.9	Thermal for Gen - min	2.14	Reverse Power Flow - max		9,024		2,784	255	8	21	8
Air Lake	ALK064	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		9,024		1,328	255	8	8	0
Air Lake	ALK067	1.1	Thermal for Gen - min	1.51	Reverse Power Flow - max		9,024		1,456	255	8	226	0
Air Lake	ALK072	0.7	Primary Over-Voltage - min	2.22	Reverse Power Flow - max		5,635		2,068	191	31	191	31
Air Lake	ALK073	1.1	Thermal for Gen - min	1.71	Reverse Power Flow - max		5,635		1,854	191	31	0	0
Altura	ALT021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,081		1,081	2004	5056	2004	5056
Annandale	ANN021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		2,119		2,119	6152	1018	6152	1018
Apache	APA061	0.9	Thermal for Gen - min	1.47	Reverse Power Flow - max		10,500		2,668	229	109	27	20
Apache	APA064	1	Thermal for Gen - min	1.06	Reverse Power Flow - max		10,500		1,285	229	109	74	40
Apache	APA065	0.9	Thermal for Gen - min	1.17	Reverse Power Flow - max		10,500		2,234	229	109	8	0
Apache	APA067	0.5	Thermal for Gen - min	1.53	Reverse Power Flow - max		10,500		1,934	229	109	78	11
Apache	APA068	0.6	Thermal for Gen - min	1.23	Reverse Power Flow - max		10,500		1,416	229	109	25	36
Apache	APA069	0.59	Reverse Power Flow - min	0.59	Reverse Power Flow - max		10,500		848	229	109	17	3
Apache	APA071	0.16	Unintentional Islanding - min	1.34	Reverse Power Flow - max		17,922		2,309	564	249	72	24
Apache	APA072	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		17,922		2,062	564	249	83	20
Apache	APA073	0.9	Thermal for Gen - min	1.29	Reverse Power Flow - max		17,922		1,645	564	249	11	13
Apache	APA074	0.9	Thermal for Gen - min	1.68	Reverse Power Flow - max		17,922		2,913	564	249	3	0
Apache	APA075	0.9	Thermal for Gen - min	1.72	Reverse Power Flow - max		17,922		2,247	564	249	164	47
Apache	APA076	0.31	Unintentional Islanding - min	1.23	Reverse Power Flow - max		17,922		1,946	564	249	47	67
Apache	APA077	1.23	Reverse Power Flow - min	1.23	Reverse Power Flow - max		17,922		2,012	564	249	171	77
Apache	APA078	0.9	Thermal for Gen - min	0.99	Reverse Power Flow - max		17,922		1,942	564	249	13	0
Atwater	ATW061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,930		547	4001	6411	4000	1000
Atwater	ATW062	0.1	Primary Over-Voltage - min	1.42	Reverse Power Flow - max		1,930		1,597	4001	6411	1	5411
Avon	AVN021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,789		1,789	3028	2008	3028	2008
Averill	AVR081	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,248		1,248	1500	5000	1500	5000
Birch	BCH311	0.9	Primary Over-Voltage - min	1.3	Primary Over-Voltage - max		1,204		1,204	75	18	75	18
Battle Creek	BCK061	10	Primary Over-Voltage - min	10	Primary Over-Voltage - max		11,653		9,849	0	0	0	0
Battle Creek	BCK062	1.35	Reverse Power Flow - min	1.35	Reverse Power Flow - max		11,653		1,432	0	0	0	0
Battle Creek	BCK071	0	Reverse Power Flow - min	0	Reverse Power Flow - max		1,465		0	0	0	0	0
Battle Creek	BCK072	0.61	Reverse Power Flow - min	0.61	Reverse Power Flow - max		1,465		213	0	0	0	0
Battle Creek	BCK073	1.2	Primary Over-Voltage - min	1.34	Reverse Power Flow - max		1,465		1,393	0	0	0	0
Battle Creek	BCK074	1.04	Reverse Power Flow - min	1.04	Reverse Power Flow - max		1,465		541	0	0	0	0
Bassett Creek	BCR061	0.9	Thermal for Gen - min	2.32	Reverse Power Flow - max		10,220		2,530	58	275	0	0
Bassett Creek	BCR062	1	Thermal for Gen - min	3.36	Reverse Power Flow - max		10,220		3,660	58	275	19	258
Bassett Creek	BCR063	0.9	Thermal for Gen - min	2.3	Reverse Power Flow - max		10,220		2,460	58	275	39	18
Bassett Creek	BCR081	0.99	Reverse Power Flow - min	0.99	Reverse Power Flow - max		4,060		1,120	30	0	8	0
Bassett Creek	BCR082	0.29	Unintentional Islanding - min	1.59	Reverse Power Flow - max		4,060		1,870	30	0	15	0
Bassett Creek	BCR083	0.9	Thermal for Gen - min	1.68	Reverse Power Flow - max		4,060		1,900	30	0	8	0
Belgrade	BEG001	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		483		483	720	1000	720	1000
Becker	BEK021	0.1	Primary Over-Voltage - min	0.1	Primary Over-Voltage - max		316		316	126	0	126	0
Becker	BEK311	0.01	Reverse Power Flow - min	0.01	Reverse Power Flow - max		10		10	44	0	44	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Belle Plain	BEL061	0.1	Primary Over-Voltage - min	0.1	Primary Over-Voltage - max		3,044		1,997	4996	4016	22	1008
Belle Plain	BEL062	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		3,044		1,385	4996	4016	4974	3008
Buffalo Lake	BFL021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		525		525	1000	1000	1000	1000
Bird Island	BIS001	0.1	Primary Over-Voltage - min	0.3	Reverse Power Flow - max		505		505	30	11	30	11
Bluff Creek	BLC061	1.2	Primary Over-Voltage - min	1.23	Reverse Power Flow - max		13,483		1,626	41	53	0	0
Bluff Creek	BLC062	0.9	Thermal for Gen - min	2.18	Reverse Power Flow - max		13,483		3,108	41	53	36	34
Bluff Creek	BLC063	1	Primary Over-Voltage - min	1.9	Reverse Power Flow - max		13,483		2,762	41	53	5	18
Bluff Creek	BLC071	1.1	Thermal for Gen - min	1.96	Reverse Power Flow - max		13,483		2,915	41	53	0	0
Bluff Creek	BLC072	0.7	Primary Over-Voltage - min	1.27	Reverse Power Flow - max		13,483		2,338	41	53	0	0
Blue Herron	BLH061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,911		1,560	3022	0	3015	0
Blue Herron	BLH062	0.2	Thermal for Gen - min	0.42	Reverse Power Flow - max		1,911		517	3022	0	7	0
Blue Lake	BLL062	0.5	Primary Over-Voltage - min	0.94	Reverse Power Flow - max		6,438		1,127	0	0	0	0
Blue Lake	BLL063	0.3	Thermal for Gen - min	1.53	Reverse Power Flow - max		6,438		3,232	0	0	0	0
Blue Lake	BLL064	0.44	Reverse Power Flow - min	0.44	Reverse Power Flow - max		6,438		59	0	0	0	0
Blue Lake	BLL071	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		4,004		1,404	3000	0	3000	0
Blue Lake	BLL072	0.9	Thermal for Gen - min	3.26	Reverse Power Flow - max		4,004		3,516	3000	0	0	0
Brooten	BRO021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,199		1,199	2060	6010	2060	6010
Brooklyn Park	BRP061	0.56	Reverse Power Flow - min	0.56	Reverse Power Flow - max		4,130		810	100	1092	0	0
Brooklyn Park	BRP062	0.9	Thermal for Gen - min	1.33	Reverse Power Flow - max		4,130		1,600	100	1092	100	1092
Brooklyn Park	BRP063	0.9	Thermal for Gen - min	1.01	Reverse Power Flow - max		4,130		1,100	100	1092	0	0
Brooklyn Park	BRP071	0.8	Primary Over-Voltage - min	1.31	Reverse Power Flow - max		5,350		1,610	39	324	23	14
Brooklyn Park	BRP072	0.9	Thermal for Gen - min	1.25	Reverse Power Flow - max		5,350		1,730	39	324	16	147
Brooklyn Park	BRP073	0.23	Unintentional Islanding - min	1.25	Reverse Power Flow - max		5,350		1,530	39	324	0	163
Brownton	BRW001	0.1	Reverse Power Flow - min	0.1	Reverse Power Flow - max		86		86	0	0	0	0
Butterfield	BTF001	0	Thermal for Gen - min	0.15	Reverse Power Flow - max		429		429	275	0	275	0
Burnside	BUR022	0.13	Unintentional Islanding - min	0.29	Reverse Power Flow - max		3,700		1,750	88	0	88	0
Burnside	BUR023	0.56	Unintentional Islanding - min	2.13	Reverse Power Flow - max		3,700		1,890	88	0	0	0
Burnside	BUR032	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,906		1,906	5028	4413	5028	4413
Baytown	BYT061	0.13	Unintentional Islanding - min	1.52	Reverse Power Flow - max		2,886		2,886	74	35	74	35
Baytown	BYT071	0.77	Unintentional Islanding - min	1.66	Reverse Power Flow - max		4,922		1,751	93	67	48	44
Baytown	BYT072	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		4,922		3,029	93	67	45	23
Cannon Falls	CAF021	0.57	Reverse Power Flow - min	0.57	Reverse Power Flow - max		1,204		611	0	1004	0	0
Cannon Falls	CAF022	0.3	Thermal for Gen - min	0.55	Reverse Power Flow - max		1,204		643	0	1004	0	1004
Cedarvale	CDV061	0.4	Reverse Power Flow - min	0.4	Reverse Power Flow - max		3,358		866	16	0	0	0
Cedarvale	CDV062	0.92	Reverse Power Flow - min	0.92	Reverse Power Flow - max		3,358		908	16	0	0	0
Cedarvale	CDV063	0.13	Unintentional Islanding - min	0.84	Reverse Power Flow - max		3,358		842	16	0	16	0
Cedarvale	CDV071	0.41	Additional Element Fault Current - min	1.2	Reverse Power Flow - max		7,857		1,800	929	20	750	0
Cedarvale	CDV072	0.5	Thermal for Gen - min	1.66	Reverse Power Flow - max		7,857		1,918	929	20	179	20

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Cedar Lake	CEL061	0.8	Primary Over-Voltage - min	1.15	Reverse Power Flow - max		9,199		2,025	109	21	0	0
Cedar Lake	CEL062	0.9	Thermal for Gen - min	1.27	Reverse Power Flow - max		9,199		2,089	109	21	17	0
Cedar Lake	CEL063	0.88	Reverse Power Flow - min	0.88	Reverse Power Flow - max		9,199		765	109	21	0	0
Cedar Lake	CEL064	0.9	Thermal for Gen - min	1.6	Reverse Power Flow - max		9,199		2,041	109	21	60	17
Cedar Lake	CEL066	0.04	Unintentional Islanding - min	0.93	Reverse Power Flow - max		9,199		1,392	109	21	32	4
Cedar Lake	CEL071	1.2	Thermal for Gen - min	1.72	Reverse Power Flow - max		5,072		2,647	119	0	16	0
Cedar Lake	CEL072	0.9	Thermal for Gen - min	0.92	Reverse Power Flow - max		5,072		1,499	119	0	68	0
Cedar Lake	CEL075	0.87	Reverse Power Flow - min	0.87	Reverse Power Flow - max		5,072		1,087	119	0	34	0
Cottage Grove	CGR061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		10,983		2,386	15165	1089	1066	37
Cottage Grove	CGR062	0.9	Thermal for Gen - min	3.09	Reverse Power Flow - max		10,983		4,809	15165	1089	20	0
Cottage Grove	CGR063	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		10,983		194	15165	1089	14067	1040
Cottage Grove	CGR064	0.9	Thermal for Gen - min	1.9	Reverse Power Flow - max		10,983		2,470	15165	1089	13	12
Cottage Grove	CGR071	0.6	Reverse Power Flow - min	0.6	Reverse Power Flow - max		6,805		906	128	43	25	18
Cottage Grove	CGR072	0.9	Thermal for Gen - min	2.31	Reverse Power Flow - max		6,805		2,518	128	43	67	20
Cottage Grove	CGR073	2.24	Reverse Power Flow - min	2.24	Reverse Power Flow - max		6,805		3,202	128	43	0	0
Cottage Grove	CGR074	0.9	Primary Over-Voltage - min	1.41	Reverse Power Flow - max		6,805		1,628	128	43	36	5
Chemolite	CHE063	0.3	Primary Over-Voltage - min	1.96	Reverse Power Flow - max		6,952		2,220	798	9	780	5
Chemolite	CHE064	0.5	Thermal for Gen - min	1.3	Reverse Power Flow - max		6,952		1,924	798	9	18	4
Chemolite	CHE075	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		6,822		3,712	4964	1032	4938	1011
Chemolite	CHE076	0.9	Thermal for Gen - min	1.76	Reverse Power Flow - max		6,822		2,159	4964	1032	27	21
Chisago County	CHI311	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		2,190		2,190	22728	19175	22728	19175
Clarks Grove	CKG041	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		421		421	289	2000	289	2000
Clara City	CLC022	0	Reverse Power Flow - min	0	Reverse Power Flow - max		633		633	1000	0	1000	0
Clara City	CLC221	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,324		1,324	2072	4036	2072	4036
Coon Creek	CNC061	1.91	Reverse Power Flow - min	1.91	Reverse Power Flow - max		6,327		3,035	42	0	0	0
Coon Creek	CNC062	1.1	Thermal for Gen - min	1.58	Reverse Power Flow - max		6,327		1,857	42	0	36	0
Coon Creek	CNC063	0.9	Thermal for Gen - min	1.09	Reverse Power Flow - max		6,327		2,909	42	0	6	0
Coon Creek	CNC071	0.9	Thermal for Gen - min	1.03	Reverse Power Flow - max		8,440		2,968	83	10	35	0
Coon Creek	CNC072	1.1	Thermal for Gen - min	1.75	Reverse Power Flow - max		8,440		3,522	83	10	4	10
Coon Creek	CNC073	0.9	Thermal for Gen - min	2.36	Reverse Power Flow - max		8,440		1,573	83	10	44	0
Cokato	COK061	0	Additional Element Fault Current - min	0.16	Breaker Relay Reduction of Reach - max		1,306		1,306	1007	5000	1007	5000
Crystal Foods	CRF061	0.51	Reverse Power Flow - min	0.51	Reverse Power Flow - max		1,750		522	0	0	0	0
Crystal Foods	CRF062	0.2	Thermal for Gen - min	1.25	Reverse Power Flow - max		1,750		1,260	0	0	0	0
Crooked Lake	CRL027	0.06	Unintentional Islanding - min	2.98	Reverse Power Flow - max		12,404		3,314	30	0	16	0
Crooked Lake	CRL031	0.14	Unintentional Islanding - min	1.19	Reverse Power Flow - max		4,838		1,315	6	11	0	11
Crooked Lake	CRL033	0.32	Unintentional Islanding - min	1.81	Reverse Power Flow - max		4,838		1,931	6	11	6	0
Crooked Lake	CRL065	1.07	Reverse Power Flow - min	1.07	Reverse Power Flow - max		12,404		1,204	30	0	15	0
Castle Rock	CSR001	0.1	Reverse Power Flow - min	0.1	Reverse Power Flow - max		100		100	5	0	5	0
Cannon Falls Transmission	CTF021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		3,915		991	12552	1025	10020	1025
Cannon Falls Transmission	CTF022	0.12	Unintentional Islanding - min	0.94	Reverse Power Flow - max		3,915		2,271	12552	1025	2532	0
Credit River	CTR021	0.17	Unintentional Islanding - min	1.09	Reverse Power Flow - max		2,558		1,811	50	0	45	0
Credit River	CTR022	0.67	Reverse Power Flow - min	0.67	Reverse Power Flow - max		2,558		1,000	50	0	5	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Credit River	CTR031	0.55	Unintentional Islanding - min	2.11	Reverse Power Flow - max		3,229		3,229	19	85	19	85
Danube	DAN021	0.1	Primary Over-Voltage - min	0.47	Reverse Power Flow - max		224		224	0	1000	0	1000
Dassel	DAS061	0.1	Primary Over-Voltage - min	0.6	Reverse Power Flow - max		753		753	10	2048	10	2048
Dayton's Bluff	DBL060	0.3	Thermal for Gen - min	1.55	Breaker Relay Reduction of Reach - max		14,115		2,214	809	109	82	0
Dayton's Bluff	DBL061	0.5	Thermal for Gen - min	2.52	Reverse Power Flow - max		14,115		2,608	809	109	0	0
Dayton's Bluff	DBL062	0.79	Reverse Power Flow - min	0.79	Reverse Power Flow - max		14,115		806	809	109	0	0
Dayton's Bluff	DBL063	0.29	Unintentional Islanding - min	1.69	Reverse Power Flow - max		14,115		1,844	809	109	28	24
Dayton's Bluff	DBL064	0.31	Reverse Power Flow - min	0.31	Reverse Power Flow - max		14,115		292	809	109	540	0
Dayton's Bluff	DBL065	0.9	Thermal for Gen - min	2.04	Reverse Power Flow - max		14,115		2,256	809	109	35	18
Dayton's Bluff	DBL066	0.1	Thermal for Gen - min	0.57	Reverse Power Flow - max		14,115		707	809	109	44	0
Dayton's Bluff	DBL067	0.07	Unintentional Islanding - min	2.22	Reverse Power Flow - max		14,115		2,707	809	109	23	6
Dayton's Bluff	DBL068	0.25	Unintentional Islanding - min	1.96	Reverse Power Flow - max		14,115		2,335	809	109	56	21
Dayton's Bluff	DBL069	0.6	Thermal for Gen - min	2.9	Reverse Power Flow - max		14,115		3,306	809	109	0	40
Dayton's Bluff	DBL072	0.78	Reverse Power Flow - min	0.78	Reverse Power Flow - max		13,825		143	51	110	0	0
Dayton's Bluff	DBL073	0.5	Thermal for Gen - min	1.32	Reverse Power Flow - max		13,825		1,942	51	110	51	22
Dayton's Bluff	DBL074	0.9	Thermal for Gen - min	1.13	Reverse Power Flow - max		13,825		2,044	51	110	0	88
Dayton's Bluff	DBL081	0.9	Thermal for Gen - min	0.97	Reverse Power Flow - max		13,188		1,676	0	0	0	0
Dayton's Bluff	DBL082	0.33	Reverse Power Flow - min	0.33	Reverse Power Flow - max		13,188		483	0	0	0	0
Douglas County	DGC061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,082		1,082	5000	3012	5000	3012
Dahlgren	DHL061	0.3	Thermal for Gen - min	1.22	Reverse Power Flow - max		1,404		1,404	22	0	22	0
Delano	DLO021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		60		60	56	0	56	0
Dundas	DND061	0.5	Thermal for Gen - min	1.25	Reverse Power Flow - max		4,143		1,581	70	677	52	14
Dundas	DND062	0.2	Thermal for Gen - min	1.03	Reverse Power Flow - max		4,143		1,099	70	677	18	663
Dundas	DND071	0.2	Thermal for Gen - min	2.03	Reverse Power Flow - max		4,847		2,419	5090	7018	90	5018
Dundas	DND072	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		4,847		1,620	5090	7018	5000	2000
Dodge Center	DOC021	0.3	Thermal for Gen - min	1.96	Reverse Power Flow - max		2,125		2,125	10	30	10	30
Dodge Center	DOC031	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,508		1,508	13143	27	13143	27
Dodge Center	DOC211	0.1	Primary Over-Voltage - min	1.64	Breaker Relay Reduction of Reach - max		2,154		2,154	64	8260	64	8260
Deephaven	DPN061	0.6	Reverse Power Flow - min	0.6	Reverse Power Flow - max		7,012		845	62	760	8	0
Deephaven	DPN062	0.9	Thermal for Gen - min	1.48	Reverse Power Flow - max		7,012		1,625	62	760	38	750
Deephaven	DPN063	0.9	Thermal for Gen - min	2.12	Reverse Power Flow - max		7,012		2,204	62	760	17	10
Deephaven	DPN071	0.9	Thermal for Gen - min	1.37	Reverse Power Flow - max		6,749		1,451	143	50	15	20
Deephaven	DPN072	0.06	Unintentional Islanding - min	0.84	Reverse Power Flow - max		6,749		958	143	50	103	13
Deephaven	DPN073	0.9	Thermal for Gen - min	2.48	Reverse Power Flow - max		6,749		2,622	143	50	25	18
East Bloomington	EBL062	1.58	Reverse Power Flow - min	1.58	Reverse Power Flow - max		10,171		5,008	0	0	0	0
East Bloomington	EBL063	0.39	Reverse Power Flow - min	0.39	Reverse Power Flow - max		10,171		0	0	0	0	0
East Bloomington	EBL064	1.1	Thermal for Gen - min	1.56	Reverse Power Flow - max		10,171		540	0	0	0	0
East Bloomington	EBL065	1.01	Reverse Power Flow - min	1.01	Reverse Power Flow - max		10,171		1,600	0	0	0	0
East Bloomington	EBL066	0.86	Reverse Power Flow - min	0.86	Reverse Power Flow - max		10,171		721	0	0	0	0
East Bloomington	EBL067	1.07	Reverse Power Flow - min	1.07	Reverse Power Flow - max		10,171		1,204	0	0	0	0
East Bloomington	EBL071	0.2	Thermal for Gen - min	1.17	Reverse Power Flow - max		14,159		2,010	0	107	0	0
East Bloomington	EBL072	1.1	Thermal for Gen - min	1.57	Reverse Power Flow - max		14,159		1,581	0	107	0	107
East Bloomington	EBL073	0.35	Reverse Power Flow - min	0.35	Reverse Power Flow - max		14,159		1,204	0	107	0	0
East Bloomington	EBL074	1.31	Reverse Power Flow - min	1.31	Reverse Power Flow - max		14,159		3,454	0	107	0	0
East Bloomington	EBL075	1.33	Reverse Power Flow - min	1.33	Reverse Power Flow - max		14,159		1,581	0	107	0	0
East Bloomington	EBL076	0.69	Reverse Power Flow - min	0.69	Reverse Power Flow - max		14,159		609	0	107	0	0
East Bloomington	EBL077	1.19	Reverse Power Flow - min	1.19	Reverse Power Flow - max		14,159		2,022	0	107	0	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
East Bloomington	EBL081	1.06	Reverse Power Flow - min	1.06	Reverse Power Flow - max		11,227		1,649	70	77	0	0
East Bloomington	EBL082	0.5	Primary Over-Voltage - min	0.86	Reverse Power Flow - max		11,227		1,603	70	77	0	50
East Bloomington	EBL083	0.54	Reverse Power Flow - min	0.54	Reverse Power Flow - max		11,227		1,300	70	77	0	0
East Bloomington	EBL084	0.1	Unintentional Islanding - min	1.13	Reverse Power Flow - max		11,227		1,803	70	77	70	22
East Bloomington	EBL085	1	Reverse Power Flow - min	1	Reverse Power Flow - max		11,227		2,002	70	77	0	0
East Bloomington	EBL087	0.82	Reverse Power Flow - min	0.82	Reverse Power Flow - max		11,227		1,523	70	77	0	0
Elm Creek	ECK061	1.1	Thermal for Gen - min	1.71	Reverse Power Flow - max		7,411		1,903	106	83	22	3
Elm Creek	ECK062	0.5	Primary Over-Voltage - min	1.62	Reverse Power Flow - max		7,411		1,910	106	83	20	25
Elm Creek	ECK063	1.1	Thermal for Gen - min	3.03	Reverse Power Flow - max		7,411		3,214	106	83	64	55
Elm Creek	ECK081	0.94	Reverse Power Flow - min	0.94	Reverse Power Flow - max		2,729		985	109	39	35	0
Elm Creek	ECK082	0.6	Primary Over-Voltage - min	1.07	Reverse Power Flow - max		2,729		1,304	109	39	74	39
Elm Creek	ECK321	0.8	Primary Over-Voltage - min	4.47	Reverse Power Flow - max		11,527		3,490	294	1603	139	86
Elm Creek	ECK322	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		11,527		2,814	294	1603	155	1517
Edina	EDA061	0.8	Primary Over-Voltage - min	0.92	Reverse Power Flow - max		18,371		1,414	415	44	113	5
Edina	EDA062	1.5	Primary Over-Voltage - min	2.06	Reverse Power Flow - max		18,371		3,306	415	44	0	0
Edina	EDA065	1.46	Reverse Power Flow - min	1.46	Reverse Power Flow - max		18,371		2,789	415	44	16	10
Edina	EDA066	1.2	Primary Over-Voltage - min	1.23	Reverse Power Flow - max		18,371		2,102	415	44	0	0
Edina	EDA067	0.1	Thermal for Gen - min	0.85	Breaker Relay Reduction of Reach - max		18,371		3,027	415	44	53	29
Edina	EDA068	0.9	Thermal for Gen - min	1.27	Reverse Power Flow - max		18,371		1,838	415	44	234	0
Edina	EDA069	0.78	Reverse Power Flow - min	0.78	Reverse Power Flow - max		18,371		1,140	415	44	0	0
Edina	EDA071	0.9	Thermal for Gen - min	1.17	Reverse Power Flow - max		17,944		1,304	119	122	0	18
Edina	EDA072	1.5	Thermal for Gen - min	1.81	Reverse Power Flow - max		17,944		2,377	119	122	16	6
Edina	EDA073	0.07	Unintentional Islanding - min	1.94	Reverse Power Flow - max		17,944		1,924	119	122	42	21
Edina	EDA074	0.9	Thermal for Gen - min	1.27	Reverse Power Flow - max		17,944		1,860	119	122	10	0
Edina	EDA075	1	Primary Over-Voltage - min	1.74	Reverse Power Flow - max		17,944		2,502	119	122	10	19
Edina	EDA076	0.62	Reverse Power Flow - min	0.62	Reverse Power Flow - max		17,944		510	119	122	0	0
Edina	EDA077	0.96	Reverse Power Flow - min	0.96	Reverse Power Flow - max		17,944		1,204	119	122	0	0
Edina	EDA078	0.69	Reverse Power Flow - min	0.69	Reverse Power Flow - max		17,944		1,551	119	122	40	30
Edina	EDA079	1.29	Reverse Power Flow - min	1.29	Reverse Power Flow - max		17,944		2,532	119	122	0	29
Edina	EDA081	0.5	Thermal for Gen - min	0.87	Reverse Power Flow - max		12,101		2,002	654	10	0	0
Edina	EDA082	1.1	Thermal for Gen - min	1.26	Reverse Power Flow - max		12,101		1,712	654	10	80	0
Edina	EDA083	1.32	Reverse Power Flow - min	1.32	Reverse Power Flow - max		12,101		1,360	654	10	0	0
Edina	EDA084	1	Thermal for Gen - min	1.5	Reverse Power Flow - max		12,101		1,775	654	10	33	0
Edina	EDA085	0	Reverse Power Flow - min	0	Reverse Power Flow - max		12,101		510	654	10	527	0
Edina	EDA087	0.29	Unintentional Islanding - min	1.56	Reverse Power Flow - max		12,101		1,726	654	10	9	10
Edina	EDA088	1.16	Reverse Power Flow - min	1.16	Reverse Power Flow - max		12,101		1,304	654	10	0	0
Edina	EDA089	0.7	Primary Over-Voltage - min	1.15	Reverse Power Flow - max		12,101		1,745	654	10	5	0
Eden Prarie	EDP062	1	Primary Over-Voltage - min	1.77	Reverse Power Flow - max		10,604		2,790	103	0	0	0
Eden Prarie	EDP063	1.3	Reverse Power Flow - min	1.3	Reverse Power Flow - max		10,604		1,400	103	0	0	0
Eden Prarie	EDP071	0.6	Primary Over-Voltage - min	1.06	Reverse Power Flow - max		10,604		1,000	103	0	0	0
Eden Prarie	EDP072	0.62	Reverse Power Flow - min	0.62	Reverse Power Flow - max		10,604		920	103	0	20	0
Eden Prarie	EDP073	1.3	Primary Over-Voltage - min	1.74	Reverse Power Flow - max		10,604		2,750	103	0	83	0
Eden Prarie	EDP081	0.14	Reverse Power Flow - min	0.14	Reverse Power Flow - max		6,591		167	152	106	0	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Eden Prairie	EDP082	1	Primary Over-Voltage - min	1.14	Reverse Power Flow - max		6,591		1,517	152	106	36	106
Eden Prairie	EDP083	1.23	Reverse Power Flow - min	1.23	Reverse Power Flow - max		6,591		1,992	152	106	116	0
Eden Prairie	EDP084	0.47	Reverse Power Flow - min	0.47	Reverse Power Flow - max		6,591		590	152	106	0	0
Eden Prairie	EDP085	1.03	Reverse Power Flow - min	1.03	Reverse Power Flow - max		6,591		1,803	152	106	0	0
Eden Prairie	EDP091	0.5	Primary Over-Voltage - min	0.91	Reverse Power Flow - max		10,604		1,100	45	0	0	0
Eden Prairie	EDP092	1.2	Primary Over-Voltage - min	1.21	Reverse Power Flow - max		10,604		1,749	45	0	29	0
Eden Prairie	EDP093	1.4	Primary Over-Voltage - min	1.59	Reverse Power Flow - max		10,604		2,247	45	0	0	0
Eden Prairie	EDP094	1.1	Primary Over-Voltage - min	1.46	Reverse Power Flow - max		10,604		1,503	45	0	0	0
Eden Prairie	EDP095	1.29	Reverse Power Flow - min	1.29	Reverse Power Flow - max		10,604		1,503	45	0	16	0
Eagle Lake	EGL021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,122		641	5268	1406	5262	1406
Eagle Lake	EGL022	0.3	Thermal for Gen - min	0.54	Reverse Power Flow - max		1,122		592	5268	1406	6	0
Elko	EKO021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,039		1,039	884	56	884	56
Elliott Park	ELP061	1.44	Reverse Power Flow - min	1.44	Reverse Power Flow - max		14,560		2,742	55	0	0	0
Elliott Park	ELP062	0.5	Thermal for Gen - min	1.62	Reverse Power Flow - max		14,560		3,725	55	0	55	0
Elliott Park	ELP063	0.9	Thermal for Gen - min	1.44	Reverse Power Flow - max		14,560		2,984	55	0	0	0
Elliott Park	ELP064	0.61	Reverse Power Flow - min	0.61	Reverse Power Flow - max		14,560		2,207	55	0	0	0
Elliott Park	ELP071	0.75	Reverse Power Flow - min	0.75	Reverse Power Flow - max		14,285		1,943	50	0	50	0
Elliott Park	ELP072	0.68	Reverse Power Flow - min	0.68	Reverse Power Flow - max		14,285		1,372	50	0	0	0
Elliott Park	ELP073	0.87	Reverse Power Flow - min	0.87	Reverse Power Flow - max		14,285		660	50	0	0	0
Elliott Park	ELP074	1.21	Reverse Power Flow - min	1.21	Reverse Power Flow - max		14,285		1,649	50	0	0	0
Elliott Park	ELP075	0.9	Thermal for Gen - min	0.9	Reverse Power Flow - max		14,285		741	50	0	0	0
Elliott Park	ELP081	0.26	Reverse Power Flow - min	0.26	Reverse Power Flow - max		14,444		2,851	9040	0	0	0
Elliott Park	ELP082	0.5	Thermal for Gen - min	0.85	Reverse Power Flow - max		14,444		3,503	9040	0	40	0
Elliott Park	ELP083	0.62	Reverse Power Flow - min	0.62	Reverse Power Flow - max		14,444		659	9040	0	0	0
Elliott Park	ELP084	0.9	Thermal for Gen - min	1.29	Reverse Power Flow - max		14,444		4,915	9040	0	0	0
Elliott Park	ELP085	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		14,444		0	9040	0	9000	0
Elliott Park	ELP086X	0.67	Reverse Power Flow - min	0.67	Reverse Power Flow - max		14,444		2,626	9040	0	0	0
Elliott Park	ELP086Y	0.67	Reverse Power Flow - min	0.67	Reverse Power Flow - max		14,444		2,387	9040	0	0	0
Essig	ESG001	0.04	Reverse Power Flow - min	0.04	Reverse Power Flow - max		54		54	0	0	0	0
Eastwood	ESW061	0.3	Thermal for Gen - min	3.08	Reverse Power Flow - max		8,579		3,239	160	20	45	20
Eastwood	ESW062	0.33	Unintentional Islanding - min	3.87	Reverse Power Flow - max		8,579		4,219	160	20	115	0
Eastwood	ESW063	1.02	Reverse Power Flow - min	1.02	Reverse Power Flow - max		8,579		1,036	160	20	0	0
Eastwood	ESW071	0.9	Thermal for Gen - min	1.35	Reverse Power Flow - max		3,907		1,646	5539	0	0	0
Eastwood	ESW072	0.2	Thermal for Gen - min	1.85	Reverse Power Flow - max		3,907		1,825	5539	0	0	0
Eastwood	ESW073	0	Unintentional Islanding - min	0.71	Reverse Power Flow - max		3,907		804	5539	0	5539	0
Eastwood	ESW081	1	Primary Over-Voltage - min	1.64	Reverse Power Flow - max		5,109		1,500	112	5	30	5
Eastwood	ESW082	0.9	Primary Over-Voltage - min	2.25	Reverse Power Flow - max		5,109		2,927	112	5	82	0
East Winona	EWI022	0.4	Thermal for Gen - min	1.88	Reverse Power Flow - max		1,879		1,879	0	5	0	5
Excelsior	EXC061	0.9	Thermal for Gen - min	1.13	Reverse Power Flow - max		2,555		1,143	114	42	5	25
Excelsior	EXC062	0.5	Thermal for Gen - min	1.39	Reverse Power Flow - max		2,555		1,432	114	42	109	17
Faribault	FAB061	0.5	Thermal for Gen - min	1.19	Reverse Power Flow - max		4,800		1,879	57	2987	0	8
Faribault	FAB063	0.2	Primary Over-Voltage - min	0.99	Breaker Relay Reduction of Reach - max		4,800		2,864	57	2987	57	2979
Faribault	FAB071	0.2	Thermal for Gen - min	1.69	Reverse Power Flow - max		3,646		2,062	33	18	33	0
Faribault	FAB073	0.2	Thermal for Gen - min	0.85	Reverse Power Flow - max		3,646		1,584	33	18	0	18
Fair Park	FAP061	0	Unintentional Islanding - min	2	Breaker Relay Reduction of Reach - max		2,663		2,663	5568	52	5568	52
Fair Park	FAP071	0.6	Thermal for Gen - min	2.07	Reverse Power Flow - max		2,843		2,843	14	25	14	25

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Fiesta City	FIC021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,837		1,258	4036	3097	4000	97
Fiesta City	FIC022	0.6	Thermal for Gen - min	0.75	Reverse Power Flow - max		1,837		1,300	4036	3097	36	3000
Fiesta City	FIC031	0.1	Primary Over-Voltage - min	0.99	Reverse Power Flow - max		1,100		1,100	0	0	0	0
Franklin	FRA001	0.1	Primary Over-Voltage - min	0.16	Reverse Power Flow - max		248		248	0	0	0	0
Franklin	FRA211	0.31	Reverse Power Flow - min	0.31	Reverse Power Flow - max		347		347	0	0	0	0
Farmington	FRM061	0.61	Reverse Power Flow - min	0.61	Reverse Power Flow - max		1,084		640	10753	0	734	0
Farmington	FRM062	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,084		447	10753	0	10019	0
Farmington	FRM071	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,360		1,360	6149	9	6149	9
Frontenac	FRO021	0	Unintentional Islanding - min	0.45	Reverse Power Flow - max		563		563	5031	0	5031	0
First Lake	FSL311	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		13,320		6,003	11119	51	11050	20
First Lake	FSL312	0.2	Thermal for Gen - min	1.36	Breaker Relay Reduction of Reach - max		13,320		7,747	11119	51	69	31
Fifth Street	FST067	1.06	Reverse Power Flow - min	1.06	Reverse Power Flow - max		11,171		720	35	0	35	0
Fifth Street	FST068	1.1	Reverse Power Flow - min	1.1	Reverse Power Flow - max		11,171		1,228	35	0	0	0
Fifth Street	FST077	0.82	Reverse Power Flow - min	0.82	Reverse Power Flow - max		11,626		525	32	0	0	0
Fifth Street	FST078	1.03	Reverse Power Flow - min	1.03	Reverse Power Flow - max		11,626		1,726	32	0	32	0
Fifth Street	FST085	0.45	Reverse Power Flow - min	0.45	Reverse Power Flow - max		11,910		445	0	0	0	0
Fifth Street	FST086	0.62	Reverse Power Flow - min	0.62	Reverse Power Flow - max		11,910		768	0	0	0	0
Fifth Street	FST087	0.87	Reverse Power Flow - min	0.87	Reverse Power Flow - max		11,526		561	0	0	0	0
Fifth Street	FST088	0.89	Reverse Power Flow - min	0.89	Reverse Power Flow - max		11,526		333	0	0	0	0
Gaylord	GAY001	0.1	Primary Over-Voltage - min	0.22	Reverse Power Flow - max		749		291	14	1000	8	0
Gaylord	GAY002	0.1	Primary Over-Voltage - min	0.41	Reverse Power Flow - max		749		507	14	1000	6	1000
Gaylord	GAY003	0.1	Primary Over-Voltage - min	0.27	Reverse Power Flow - max		749		373	14	1000	0	0
Greenfield	GFD021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,280		772	10147	0	10031	0
Greenfield	GFD022	0.2	Primary Over-Voltage - min	0.54	Reverse Power Flow - max		1,280		604	10147	0	116	0
Gibbon	GIB021	0.1	Unintentional Islanding - min	0.41	Reverse Power Flow - max		439		439	3370	0	3370	0
Glenwood	GLD021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		2,800		2,800	11101	3040	11101	3040
Glenwood	GLD031	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,204		1,204	2	0	2	0
Goose Lake	GLK061	0.01	Unintentional Islanding - min	2.32	Reverse Power Flow - max		11,624		2,830	118	172	37	45
Goose Lake	GLK062	0.25	Unintentional Islanding - min	1.99	Reverse Power Flow - max		11,624		2,968	118	172	11	40
Goose Lake	GLK063	0.14	Unintentional Islanding - min	1.39	Reverse Power Flow - max		11,624		1,868	118	172	0	26
Goose Lake	GLK064	0.09	Unintentional Islanding - min	1.82	Reverse Power Flow - max		11,624		2,040	118	172	40	54
Goose Lake	GLK065	0.22	Unintentional Islanding - min	1.12	Reverse Power Flow - max		11,624		1,237	118	172	30	8
Goose Lake	GLK071	0.23	Unintentional Islanding - min	2.18	Reverse Power Flow - max		10,307		2,751	199	255	33	67
Goose Lake	GLK072	0.9	Thermal for Gen - min	1.78	Reverse Power Flow - max		10,307		3,239	199	255	55	56
Goose Lake	GLK073	0.6	Thermal for Gen - min	1.77	Reverse Power Flow - max		10,307		2,062	199	255	48	45
Goose Lake	GLK074	0.1	Primary Over-Voltage - min	1.59	Breaker Relay Reduction of Reach - max		10,307		2,410	199	255	63	87
Glen Lake	GNL061	0.92	Reverse Power Flow - min	0.92	Reverse Power Flow - max		5,314		1,086	73	170	10	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Glen Lake	GNL062	0.8	Primary Over-Voltage - min	1.36	Reverse Power Flow - max		5,314		1,861	73	170	25	157
Glen Lake	GNL063	0.9	Primary Over-Voltage - min	1.24	Reverse Power Flow - max		5,314		1,642	73	170	39	13
Glen Lake	GNL071	0.5	Thermal for Gen - min	1.21	Reverse Power Flow - max		4,916		1,728	102	251	19	29
Glen Lake	GNL072	0.8	Primary Over-Voltage - min	1.59	Reverse Power Flow - max		4,916		2,536	102	251	63	17
Glen Lake	GNL073	0.99	Reverse Power Flow - min	0.99	Reverse Power Flow - max		4,916		1,637	102	251	20	205
Gopher	GPH061	0.9	Thermal for Gen - min	1.32	Reverse Power Flow - max		6,946		4,380	57	16	28	12
Gopher	GPH062	0.9	Thermal for Gen - min	1.99	Reverse Power Flow - max		6,946		4,454	57	16	29	4
Gopher	GPH068	2.62	Reverse Power Flow - min	2.62	Reverse Power Flow - max		6,946		1,034	57	16	0	0
Gopher	GPH069	1.36	Reverse Power Flow - min	1.36	Reverse Power Flow - max		6,946		3,333	57	16	0	0
Gopher	GPH073	0.9	Thermal for Gen - min	1.03	Reverse Power Flow - max		3,333		1,355	36	0	36	0
Gopher	GPH074	1.35	Reverse Power Flow - min	1.35	Reverse Power Flow - max		3,333		0	36	0	0	0
Gopher	GPH075	1.66	Reverse Power Flow - min	1.66	Reverse Power Flow - max		3,333		0	36	0	0	0
Gopher	GPH079	1	Reverse Power Flow - min	1	Reverse Power Flow - max		3,333		0	36	0	0	0
Granite City	GRC062	0.69	Unintentional Islanding - min	1.71	Reverse Power Flow - max		5,783		2,816	325	391	179	333
Granite City	GRC063	0.15	Unintentional Islanding - min	2.46	Reverse Power Flow - max		5,783		2,746	325	391	147	58
Granite City	GRC073	0.2	Primary Over-Voltage - min	1.5	Reverse Power Flow - max		2,596		2,596	43	0	43	0
Granite City	GRC311	0	Reverse Power Flow - min	0	Reverse Power Flow - max		6,526		2,886	9094	58	5065	0
Granite City	GRC312	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		6,526		6,361	9094	58	4030	25
Granite City	GRC313	0.4	Primary Over-Voltage - min	1.35	Reverse Power Flow - max		6,526		1,304	9094	58	0	33
Green Isle	GRI001	0.1	Primary Over-Voltage - min	0.21	Reverse Power Flow - max		228		228	0	1035	0	1035
Gleason Lake	GSL061	0.69	Reverse Power Flow - min	0.69	Reverse Power Flow - max		5,148		1,020	58	48	12	8
Gleason Lake	GSL064	0.5	Thermal for Gen - min	1.84	Reverse Power Flow - max		5,148		2,110	58	48	15	40
Gleason Lake	GSL065	0.5	Thermal for Gen - min	1.58	Reverse Power Flow - max		5,148		1,924	58	48	30	0
Gleason Lake	GSL074	0.24	Unintentional Islanding - min	1.97	Reverse Power Flow - max		5,743		2,193	95	91	44	57
Gleason Lake	GSL075	0.9	Thermal for Gen - min	2.27	Reverse Power Flow - max		5,743		2,511	95	91	9	0
Gleason Lake	GSL076	1.1	Thermal for Gen - min	1.69	Reverse Power Flow - max		5,743		1,803	95	91	24	17
Gleason Lake	GSL079	0.9	Thermal for Gen - min	1.07	Reverse Power Flow - max		5,743		1,334	95	91	18	17
Gleason Lake	GSL341	0.2	Thermal for Gen - min	1.73	Breaker Relay Reduction of Reach - max		12,170		6,414	166	47	36	47
Gleason Lake	GSL342	1.5	Thermal for Gen - min	6.06	Reverse Power Flow - max		12,170		7,607	166	47	130	0
Goodview	GVW021	0.1	Thermal for Gen - min	1.53	Reverse Power Flow - max		6,589		1,604	212	1557	46	46
Goodview	GVW022	0.2	Thermal for Gen - min	1.93	Reverse Power Flow - max		6,589		1,933	212	1557	46	8
Goodview	GVW023	0.2	Thermal for Gen - min	2.09	Reverse Power Flow - max		6,589		1,854	212	1557	121	1504
Goodview	GVW031	0.2	Thermal for Gen - min	1.84	Reverse Power Flow - max		5,382		1,766	385	5084	320	5084
Goodview	GVW032	0.11	Unintentional Islanding - min	1.84	Reverse Power Flow - max		5,382		1,980	385	5084	66	0
Hadley	HAD021	0.15	Unintentional Islanding - min	0.17	Reverse Power Flow - max		337		180	1011	0	3	0
Hadley	HAD022	0	Reverse Power Flow - min	0	Reverse Power Flow - max		337		157	1011	0	1008	0
Hastings	HAS021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		3,552		129	4673	7	4637	7
Hastings	HAS022	0.3	Thermal for Gen - min	2.01	Reverse Power Flow - max		3,552		2,408	4673	7	36	0
Hastings	HAS023	0.8	Thermal for Gen - min	1.44	Reverse Power Flow - max		3,552		1,000	4673	7	0	0
Hastings	HAS031	0.6	Reverse Power Flow - min	0.6	Reverse Power Flow - max		2,667		1,204	23	7	23	0
Hastings	HAS032	0.04	Unintentional Islanding - min	0.78	Reverse Power Flow - max		2,667		762	23	7	0	7
Hastings	HAS033	0.72	Reverse Power Flow - min	0.72	Reverse Power Flow - max		2,667		701	23	7	0	0
Hector	HEC001	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		594		594	3000	0	3000	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Henderson	HEN021	0.2	Primary Over-Voltage - min	0.3	Reverse Power Flow - max		342		342	0	0	0	0
Hollydale	HOL061	0.7	Primary Over-Voltage - min	1.47	Reverse Power Flow - max		4,597		2,010	74	41	21	26
Hollydale	HOL062	0.9	Thermal for Gen - min	1.97	Reverse Power Flow - max		4,597		2,561	74	41	53	15
Howard Lake	HOW061	0.06	Unintentional Islanding - min	1.32	Reverse Power Flow - max		1,416		1,416	106	118	106	118
Hassan	HSN311	0.24	Unintentional Islanding - min	3.08	Reverse Power Flow - max		11,841		5,219	465	1045	357	39
Hassan	HSN312	0	Unintentional Islanding - min	3.25	Breaker Relay Reduction of Reach - max		11,841		6,775	465	1045	108	1006
Hassan	HSN321	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		16,669		5,827	5130	30	5099	19
Hassan	HSN322	1.4	Thermal for Gen - min	4.54	Reverse Power Flow - max		16,669		8,222	5130	30	31	11
Hugo	HUG311	0.2	Primary Over-Voltage - min	0.85	Breaker Relay Reduction of Reach - max		7,240		4,649	179	176	59	73
Hugo	HUG312	0.1	Primary Over-Voltage - min	3.91	Breaker Relay Reduction of Reach - max		7,240		4,364	179	176	120	102
Hugo	HUG321	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		4,412		2,804	11755	2190	11733	2190
Hugo	HUG322	2.24	Reverse Power Flow - min	2.24	Reverse Power Flow - max		4,412		3,431	11755	2190	22	0
Hiawatha West	HWW061	0.06	Unintentional Islanding - min	1.65	Breaker Relay Reduction of Reach - max		18,116		914	1719	174	729	5
Hiawatha West	HWW062	0.9	Thermal for Gen - min	1.97	Reverse Power Flow - max		18,116		2,184	1719	174	113	75
Hiawatha West	HWW071	0.06	Unintentional Islanding - min	1.43	Reverse Power Flow - max		18,116		3,520	1719	174	24	8
Hiawatha West	HWW072	0.9	Thermal for Gen - min	1.07	Reverse Power Flow - max		18,116		2,087	1719	174	130	8
Hiawatha West	HWW073	0.16	Unintentional Islanding - min	1.49	Reverse Power Flow - max		18,116		1,684	1719	174	264	36
Hiawatha West	HWW074	0.9	Thermal for Gen - min	1.24	Reverse Power Flow - max		18,116		2,165	1719	174	161	43
Hiawatha West	HWW075	0.9	Thermal for Gen - min	2.76	Reverse Power Flow - max		18,116		3,040	1719	174	298	0
Hyland Lake	HYL061	1.3	Primary Over-Voltage - min	1.74	Reverse Power Flow - max		15,804		1,529	206	185	16	180
Hyland Lake	HYL062	1	Thermal for Gen - min	1.49	Reverse Power Flow - max		15,804		2,121	206	185	19	0
Hyland Lake	HYL063	0.6	Primary Over-Voltage - min	1.64	Reverse Power Flow - max		15,804		1,304	206	185	30	0
Hyland Lake	HYL064	0.8	Primary Over-Voltage - min	2.73	Reverse Power Flow - max		15,804		1,628	206	185	16	5
Hyland Lake	HYL065	1.4	Primary Over-Voltage - min	2.11	Reverse Power Flow - max		15,804		4,604	206	185	125	0
Hyland Lake	HYL071	0.11	Reverse Power Flow - min	0.11	Reverse Power Flow - max		6,356		200	116	71	0	0
Hyland Lake	HYL072	0.9	Primary Over-Voltage - min	1.23	Reverse Power Flow - max		6,356		1,616	116	71	40	0
Hyland Lake	HYL073	0.41	Unintentional Islanding - min	1.73	Reverse Power Flow - max		6,356		1,838	116	71	41	37
Hyland Lake	HYL074	0.6	Thermal for Gen - min	1.4	Reverse Power Flow - max		6,356		1,910	116	71	8	15
Hyland Lake	HYL075	0.8	Primary Over-Voltage - min	1.23	Reverse Power Flow - max		6,356		1,404	116	71	27	19
Indiana	IDA061	0.74	Reverse Power Flow - min	0.74	Reverse Power Flow - max		4,493		545	113	15	0	0
Indiana	IDA062	0.19	Unintentional Islanding - min	1.11	Reverse Power Flow - max		4,493		1,400	113	15	38	15
Indiana	IDA063	1.1	Thermal for Gen - min	1.47	Reverse Power Flow - max		4,493		2,435	113	15	5	0
Indiana	IDA064	0.9	Thermal for Gen - min	1.29	Reverse Power Flow - max		4,493		2,046	113	15	71	0
Indiana	IDA071	0.81	Reverse Power Flow - min	0.81	Reverse Power Flow - max		7,508		1,310	261	28	0	0
Indiana	IDA072	0.9	Thermal for Gen - min	1.25	Reverse Power Flow - max		7,508		1,968	261	28	11	0
Indiana	IDA073	0.9	Thermal for Gen - min	1.71	Reverse Power Flow - max		7,508		2,002	261	28	232	19
Indiana	IDA074	0.8	Thermal for Gen - min	1.47	Reverse Power Flow - max		7,508		2,698	261	28	18	9
Jordan	JOR021	0.08	Unintentional Islanding - min	0.84	Reverse Power Flow - max		1,979		944	9021	1400	718	400

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Jordan	JOR022	0	Unintentional Islanding - min	1.03	Reverse Power Flow - max		1,979		1,207	9021	1400	8303	1000
Kasson	KAN022	0	Unintentional Islanding - min	1.19	Reverse Power Flow - max		1,244		1,244	5034	2000	5034	2000
Kasson	KAN031	0	Unintentional Islanding - min	2.18	Reverse Power Flow - max		2,456		2,456	5181	4000	5181	4000
Kenyon	KEN021	0.2	Primary Over-Voltage - min	0.21	Reverse Power Flow - max		283		219	2844	0	8	0
Kenyon	KEN022	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		283		134	2844	0	2836	0
Kimball	KIM021	0.48	Reverse Power Flow - min	0.48	Reverse Power Flow - max		522		522	0	1041	0	1041
Kegan Lake	KLK061	0.5	Thermal for Gen - min	1.22	Reverse Power Flow - max		2,121		2,121	17	14	17	14
Kohlman Lake	KOL061	0.5	Thermal for Gen - min	1.24	Reverse Power Flow - max		8,040		1,877	81	110	0	0
Kohlman Lake	KOL062	1.4	Thermal for Gen - min	1.65	Reverse Power Flow - max		8,040		2,138	81	110	35	0
Kohlman Lake	KOL063	0.74	Reverse Power Flow - min	0.74	Reverse Power Flow - max		8,040		1,119	81	110	0	0
Kohlman Lake	KOL064	1.3	Thermal for Gen - min	1.35	Reverse Power Flow - max		8,040		1,318	81	110	40	0
Kohlman Lake	KOL065	1.5	Thermal for Gen - min	2.08	Reverse Power Flow - max		8,040		2,725	81	110	6	110
Kohlman Lake	KOL071	0.9	Primary Over-Voltage - min	0.99	Reverse Power Flow - max		4,317		1,612	111	76	18	51
Kohlman Lake	KOL073	0.5	Primary Over-Voltage - min	0.7	Primary Over-Voltage - max		4,317		1,711	111	76	93	25
Kohlman Lake	KOL074	0.9	Thermal for Gen - min	1.38	Reverse Power Flow - max		4,317		1,970	111	76	0	0
Lake Bavaria	LAB311	0.4	Primary Over-Voltage - min	1.84	Reverse Power Flow - max		6,736		2,408	29	36	0	0
Lake Bavaria	LAB312	0.3	Thermal for Gen - min	2.58	Breaker Relay Reduction of Reach - max		6,736		3,041	29	36	29	36
La Crescent	LAC062	0.1	Thermal for Gen - min	1.49	Reverse Power Flow - max		2,389		1,610	534	4155	384	4047
La Crescent	LAC063	0.08	Unintentional Islanding - min	0.87	Reverse Power Flow - max		2,389		878	534	4155	150	108
Lake Emily	LAE061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		705		705	8505	1000	8505	1000
Lafayette	LAF001	0.1	Primary Over-Voltage - min	0.19	Reverse Power Flow - max		247		247	0	1000	0	1000
Lake City	LAK032	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		399		399	76	71	76	71
Lake Pulaski	LAP311	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		5,135		5,135	26657	2049	26657	2049
Lake Yankton	LAY061	0.08	Unintentional Islanding - min	0.37	Reverse Power Flow - max		794		794	0	0	0	0
Lawrence Creek	LCR311	0	Reverse Power Flow - min	0	Reverse Power Flow - max		2,110		2,110	27692	1069	27692	1069
Lexington	LEX061	0.6	Primary Over-Voltage - min	1.54	Reverse Power Flow - max		7,704		2,766	95	540	11	522
Lexington	LEX062	0.85	Reverse Power Flow - min	0.85	Reverse Power Flow - max		7,704		1,581	95	540	0	0
Lexington	LEX063	1.1	Thermal for Gen - min	1.65	Reverse Power Flow - max		7,704		2,202	95	540	44	18
Lexington	LEX064	0.23	Unintentional Islanding - min	1.49	Reverse Power Flow - max		7,704		1,878	95	540	40	0
Lexington	LEX065	0.03	Unintentional Islanding - min	1.07	Reverse Power Flow - max		7,704		1,100	95	540	0	0
Lexington	LEX071	0.01	Unintentional Islanding - min	1.81	Reverse Power Flow - max		7,049		2,299	106	35	18	19
Lexington	LEX072	0.36	Reverse Power Flow - min	0.36	Reverse Power Flow - max		7,049		671	106	35	0	0
Lexington	LEX073	0.4	Thermal for Gen - min	0.63	Reverse Power Flow - max		7,049		1,020	106	35	8	0
Lexington	LEX074	0.01	Unintentional Islanding - min	1.46	Reverse Power Flow - max		7,049		6,540	106	35	36	4
Lexington	LEX075	0.9	Thermal for Gen - min	1.63	Reverse Power Flow - max		7,049		1,838	106	35	43	13
Lexington	LEX331	0.9	Thermal for Gen - min	2.67	Reverse Power Flow - max		14,277		3,911	376	981	8	0
Lexington	LEX332	1.1	Unintentional Islanding - min	6.33	Reverse Power Flow - max		14,277		6,485	376	981	106	975
Lexington	LEX333	0.09	Unintentional Islanding - min	2.73	Breaker Relay Reduction of Reach - max		14,277		6,194	376	981	262	7

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Lake Lillian	LIL021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		562		562	2008	1000	2008	1000
Lindstrom	LIN022	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,542		1,542	3148	18	3148	18
Lindstrom	LIN031	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		4,080		4,080	374	5085	374	5085
Long Lake	LLK061	0.9	Thermal for Gen - min	1.43	Reverse Power Flow - max		4,001		1,825	31	23	31	23
Long Lake	LLK063	0.9	Thermal for Gen - min	1.41	Reverse Power Flow - max		4,001		1,903	31	23	0	0
Long Lake	LLK071	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		6,280		2,596	123	43	106	27
Long Lake	LLK072	1.1	Primary Over-Voltage - min	1.76	Reverse Power Flow - max		6,280		2,508	123	43	17	15
Linn Street	LNS021	0.7	Primary Over-Voltage - min	0.76	Reverse Power Flow - max		812		812	4	0	4	0
Linn Street	LNS022	0.01	Reverse Power Flow - min	0.01	Reverse Power Flow - max		759		32	4	0	0	0
Linn Street	LNS032	0.57	Reverse Power Flow - min	0.57	Reverse Power Flow - max		1,253		685	8	8	0	0
Linn Street	LNS033	0.4	Primary Over-Voltage - min	0.67	Reverse Power Flow - max		1,253		789	8	8	8	8
Lone Oak	LOK061	1.2	Thermal for Gen - min	1.39	Reverse Power Flow - max		7,400		2,332	66	30	29	7
Lone Oak	LOK062	0.5	Thermal for Gen - min	2.35	Reverse Power Flow - max		7,400		3,590	66	30	38	23
Lone Oak	LOK063	1.19	Reverse Power Flow - min	1.19	Reverse Power Flow - max		7,400		1,281	66	30	0	0
Lone Oak	LOK081	0.7	Unintentional Islanding - min	1.77	Reverse Power Flow - max		17,170		4,031	288	225	75	0
Lone Oak	LOK082	0.9	Thermal for Gen - min	0.99	Reverse Power Flow - max		17,170		1,838	288	225	0	0
Lone Oak	LOK083	1	Primary Over-Voltage - min	2.14	Reverse Power Flow - max		17,170		2,110	288	225	174	0
Lone Oak	LOK091	0.8	Primary Over-Voltage - min	1.52	Reverse Power Flow - max		17,170		2,040	288	225	0	0
Lone Oak	LOK092	1.1	Primary Over-Voltage - min	1.48	Reverse Power Flow - max		17,170		3,324	288	225	36	180
Lone Oak	LOK093	0.4	Thermal for Gen - min	1.22	Reverse Power Flow - max		17,170		2,837	288	225	2	45
Lowry	LOW021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		879		879	5034	5012	5034	5012
Lester Prarie	LSP021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,722		1,355	6082	3433	6066	2000
Lester Prarie	LSP022	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,722		609	6082	3433	16	1433
Maple Lake	MAP061	0.1	Primary Over-Voltage - min	1.08	Reverse Power Flow - max		1,205		1,205	45	25	45	25
Mazeppa	MAZ021	0.05	Unintentional Islanding - min	0.3	Primary Over-Voltage - max		477		477	27	2063	27	2063
Medford Junction	MDF021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		996		996	2035	2000	2035	2000
Midtown	MDT061	0.8	Thermal for Gen - min	1.25	Reverse Power Flow - max		12,130		2,257	349	58	47	0
Midtown	MDT062	0.9	Thermal for Gen - min	1.86	Reverse Power Flow - max		12,130		532	349	58	71	18
Midtown	MDT067	0.9	Thermal for Gen - min	1.76	Reverse Power Flow - max		12,130		3,329	349	58	33	16
Midtown	MDT071	0.3	Thermal for Gen - min	2.27	Reverse Power Flow - max		12,130		778	349	58	84	0
Midtown	MDT073	0.96	Reverse Power Flow - min	0.96	Reverse Power Flow - max		12,130		1,706	349	58	30	0
Midtown	MDT074	1	Thermal for Gen - min	1.81	Reverse Power Flow - max		12,130		2,123	349	58	68	20
Midtown	MDT077	0.1	Unintentional Islanding - min	1.24	Reverse Power Flow - max		12,130		2,149	349	58	16	4
Meire Grove	MEI021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		388		388	324	2000	324	2000
Meeker	MEK021	0.09	Reverse Power Flow - min	0.09	Reverse Power Flow - max		96		96	34	0	34	0
Medicine Lake	MEL061	0.89	Reverse Power Flow - min	0.89	Reverse Power Flow - max		13,084		1,193	753	190	354	43
Medicine Lake	MEL062	0.9	Thermal for Gen - min	1.16	Reverse Power Flow - max		13,084		1,684	753	190	68	27
Medicine Lake	MEL063	0.26	Reverse Power Flow - min	0.26	Reverse Power Flow - max		13,084		285	753	190	148	0
Medicine Lake	MEL064	0.8	Thermal for Gen - min	1.58	Reverse Power Flow - max		13,084		2,053	753	190	118	0
Medicine Lake	MEL065	0.86	Reverse Power Flow - min	0.86	Reverse Power Flow - max		13,084		473	753	190	12	6
Medicine Lake	MEL066	0.51	Reverse Power Flow - min	0.51	Reverse Power Flow - max		13,084		576	753	190	0	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Medicine Lake	MEL067	0.9	Thermal for Gen - min	1.34	Reverse Power Flow - max		13,084		1,791	753	190	3	33
Medicine Lake	MEL068	0.9	Thermal for Gen - min	1.52	Reverse Power Flow - max		13,084		1,771	753	190	33	77
Medicine Lake	MEL069	0.06	Unintentional Islanding - min	0.56	Reverse Power Flow - max		13,084		2,630	753	190	17	5
Medicine Lake	MEL071	0.75	Unintentional Islanding - min	1.02	Reverse Power Flow - max		19,104		1,516	256	369	10	8
Medicine Lake	MEL072	0.04	Unintentional Islanding - min	1.23	Reverse Power Flow - max		19,104		2,436	256	369	8	8
Medicine Lake	MEL073	0.9	Thermal for Gen - min	1.44	Reverse Power Flow - max		19,104		2,623	256	369	33	243
Medicine Lake	MEL074	0.9	Thermal for Gen - min	1.54	Reverse Power Flow - max		19,104		2,604	256	369	108	80
Medicine Lake	MEL075	0.9	Thermal for Gen - min	2.08	Reverse Power Flow - max		19,104		2,469	256	369	0	0
Medicine Lake	MEL076	1	Reverse Power Flow - min	1	Reverse Power Flow - max		19,104		1,887	256	369	0	0
Medicine Lake	MEL077	0.9	Thermal for Gen - min	1.46	Reverse Power Flow - max		19,104		1,831	256	369	50	5
Medicine Lake	MEL078	0.9	Thermal for Gen - min	1.04	Reverse Power Flow - max		19,104		1,864	256	369	48	19
Medicine Lake	MEL079	0.83	Reverse Power Flow - min	0.83	Reverse Power Flow - max		19,104		1,357	256	369	0	7
Medicine Lake	MEL081	0.9	Thermal for Gen - min	1.26	Reverse Power Flow - max		11,720		1,657	97	298	13	22
Medicine Lake	MEL082	0.9	Thermal for Gen - min	1.2	Reverse Power Flow - max		11,720		1,585	97	298	48	0
Medicine Lake	MEL083	0.8	Primary Over-Voltage - min	1.28	Reverse Power Flow - max		11,720		2,267	97	298	0	0
Medicine Lake	MEL087	0.74	Reverse Power Flow - min	0.74	Reverse Power Flow - max		11,720		514	97	298	4	276
Medicine Lake	MEL088	1.1	Primary Over-Voltage - min	1.28	Reverse Power Flow - max		11,720		1,347	97	298	27	0
Medicine Lake	MEL089	1.5	Thermal for Gen - min	1.59	Reverse Power Flow - max		11,720		2,309	97	298	6	0
Morgan	MGN211	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,455		1,455	3151	4860	3151	4860
Mayhew Lake	MHW311	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		10,194		5,055	27021	7044	11061	7044
Mayhew Lake	MHW312	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		10,194		2,306	27021	7044	15960	0
Mound	MND061	0.5	Thermal for Gen - min	0.9	Reverse Power Flow - max		6,738		1,369	115	118	3	8
Mound	MND062	0.24	Unintentional Islanding - min	2.16	Reverse Power Flow - max		6,738		3,162	115	118	49	44
Mound	MND063	0.1	Primary Over-Voltage - min	1.91	Reverse Power Flow - max		6,738		2,222	115	118	63	66
Mound	MND071	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		4,850		1,875	33	25	0	13
Mound	MND072	0.3	Thermal for Gen - min	1.74	Reverse Power Flow - max		4,850		3,013	33	25	33	11
Minnesota Lake	MNL001	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		336		336	1840	0	1840	0
Minnesota Valley	MNV211	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		800		800	3000	0	3000	0
Moore Lake	MOL061	0.5	Thermal for Gen - min	1.7	Reverse Power Flow - max		18,956		1,924	379	34	26	0
Moore Lake	MOL062	1.5	Thermal for Gen - min	2.48	Reverse Power Flow - max		18,956		2,474	379	34	40	0
Moore Lake	MOL063	0.5	Thermal for Gen - min	1.84	Reverse Power Flow - max		18,956		3,142	379	34	8	0
Moore Lake	MOL064	0.9	Thermal for Gen - min	1.55	Reverse Power Flow - max		18,956		1,828	379	34	109	0
Moore Lake	MOL065	0.9	Thermal for Gen - min	1.5	Reverse Power Flow - max		18,956		1,485	379	34	39	0
Moore Lake	MOL066	0.36	Unintentional Islanding - min	1.82	Reverse Power Flow - max		18,956		2,535	379	34	31	6
Moore Lake	MOL067	0.6	Thermal for Gen - min	1.19	Reverse Power Flow - max		18,956		1,321	379	34	8	4
Moore Lake	MOL068	0.1	Primary Over-Voltage - min	1.85	Reverse Power Flow - max		18,956		2,163	379	34	113	24
Moore Lake	MOL069	0.53	Reverse Power Flow - min	0.53	Reverse Power Flow - max		18,956		342	379	34	6	0
Moore Lake	MOL071	0.9	Thermal for Gen - min	1.36	Reverse Power Flow - max		15,814		1,855	283	783	0	10
Moore Lake	MOL072	0.25	Unintentional Islanding - min	1.38	Reverse Power Flow - max		15,814		2,307	283	783	84	8
Moore Lake	MOL073	0.9	Thermal for Gen - min	2.01	Reverse Power Flow - max		15,814		2,138	283	783	92	740
Moore Lake	MOL074	0.24	Unintentional Islanding - min	0.87	Reverse Power Flow - max		15,814		1,571	283	783	0	0
Moore Lake	MOL076	0.9	Thermal for Gen - min	1.69	Reverse Power Flow - max		15,814		2,732	283	783	0	0
Moore Lake	MOL077	0.89	Reverse Power Flow - min	0.89	Reverse Power Flow - max		15,814		1,272	283	783	0	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Moore Lake	MOL078	0.9	Thermal for Gen - min	1.76	Reverse Power Flow - max		15,814		2,159	283	783	83	25
Moore Lake	MOL079	0.9	Primary Over-Voltage - min	1.08	Reverse Power Flow - max		15,814		1,888	283	783	24	0
Merriam Park	MPK061	2.65	Reverse Power Flow - min	2.65	Reverse Power Flow - max		11,554		3,158	7350	192	0	0
Merriam Park	MPK062	0.9	Thermal for Gen - min	1.2	Reverse Power Flow - max		11,554		1,304	7350	192	40	0
Merriam Park	MPK063	0.5	Thermal for Gen - min	3.19	Reverse Power Flow - max		11,554		3,245	7350	192	83	64
Merriam Park	MPK064	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		11,554		1,503	7350	192	7033	55
Merriam Park	MPK065	0.6	Thermal for Gen - min	2.01	Reverse Power Flow - max		11,554		2,193	7350	192	34	21
Merriam Park	MPK066	1.07	Reverse Power Flow - min	1.07	Reverse Power Flow - max		11,554		1,105	7350	192	0	0
Merriam Park	MPK067	0.9	Thermal for Gen - min	2.02	Reverse Power Flow - max		11,554		2,102	7350	192	35	0
Merriam Park	MPK068	0.4	Primary Over-Voltage - min	2.65	Reverse Power Flow - max		11,554		2,927	7350	192	126	52
Merriam Park	MPK071	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		11,089		1,679	7831	100	7049	53
Merriam Park	MPK072	2.27	Reverse Power Flow - min	2.27	Reverse Power Flow - max		11,089		2,763	7831	100	0	0
Merriam Park	MPK073	0.81	Reverse Power Flow - min	0.81	Reverse Power Flow - max		11,089		1,053	7831	100	11	3
Merriam Park	MPK074	1.1	Thermal for Gen - min	2.85	Reverse Power Flow - max		11,089		3,306	7831	100	195	34
Merriam Park	MPK075	0.9	Thermal for Gen - min	1.86	Reverse Power Flow - max		11,089		1,903	7831	100	447	0
Merriam Park	MPK076	1.5	Thermal for Gen - min	1.5	Reverse Power Flow - max		11,089		1,581	7831	100	43	4
Merriam Park	MPK077	1.5	Thermal for Gen - min	3.06	Reverse Power Flow - max		11,089		3,158	7831	100	38	0
Merriam Park	MPK078	0.1	Primary Over-Voltage - min	1.21	Breaker Relay Reduction of Reach - max		11,089		2,864	7831	100	47	6
Merriam Park	MPK081	2.32	Reverse Power Flow - min	2.32	Reverse Power Flow - max		13,314		2,766	671	348	0	0
Merriam Park	MPK082	0.5	Primary Over-Voltage - min	2.07	Reverse Power Flow - max		13,314		2,247	671	348	124	41
Merriam Park	MPK083	0.5	Primary Over-Voltage - min	2.01	Reverse Power Flow - max		13,314		2,550	671	348	133	17
Merriam Park	MPK084	0.3	Thermal for Gen - min	1.6	Breaker Relay Reduction of Reach - max		13,314		1,970	671	348	45	39
Merriam Park	MPK085	0.9	Thermal for Gen - min	1.53	Reverse Power Flow - max		13,314		1,868	671	348	154	85
Merriam Park	MPK086	0.82	Reverse Power Flow - min	0.82	Reverse Power Flow - max		13,314		922	671	348	89	113
Merriam Park	MPK087	0.9	Thermal for Gen - min	2.43	Reverse Power Flow - max		13,314		2,550	671	348	127	53
Mapleton	MPN081	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		982		982	6587	1000	6587	1000
Meridian	MRN021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		464		464	3465	0	3465	0
Main Street	MST063	1.87	Reverse Power Flow - min	1.87	Reverse Power Flow - max		7,310		0	330	216	0	0
Main Street	MST064	0.37	Reverse Power Flow - min	0.37	Reverse Power Flow - max		7,310		623	330	216	0	0
Main Street	MST066	0.9	Thermal for Gen - min	1.17	Reverse Power Flow - max		7,310		1,847	330	216	81	4
Main Street	MST068	0.9	Thermal for Gen - min	1.25	Reverse Power Flow - max		7,310		1,953	330	216	35	212
Main Street	MST069	0.9	Thermal for Gen - min	1.09	Reverse Power Flow - max		7,310		1,405	330	216	62	0
Main Street	MST070	0.9	Thermal for Gen - min	1.66	Reverse Power Flow - max		13,328		2,499	304	66	22	30
Main Street	MST071	0.9	Thermal for Gen - min	1.64	Reverse Power Flow - max		13,328		3,053	304	66	187	36
Main Street	MST074	0.9	Thermal for Gen - min	1.03	Reverse Power Flow - max		13,328		211	304	66	0	0
Main Street	MST075	0.9	Thermal for Gen - min	1.83	Reverse Power Flow - max		13,328		3,564	304	66	0	0
Main Street	MST076	0.4	Thermal for Gen - min	0.8	Reverse Power Flow - max		13,328		1,041	304	66	95	0
Main Street	MST080	0.1	Thermal for Gen - min	0.81	Breaker Relay Reduction of Reach - max		7,310		1,633	330	216	152	0
Main Street	MST082						13,328		0	304	66	0	0
Montrose	MTR021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,531		1,531	8548	5	8548	5
Montevideo	MTV001	0.2	Primary Over-Voltage - min	0.23	Reverse Power Flow - max		1,012		315	36	0	30	0
Montevideo	MTV002	0.29	Reverse Power Flow - min	0.29	Reverse Power Flow - max		1,012		345	36	0	6	0
Montevideo	MTV003	0.4	Thermal for Gen - min	0.43	Reverse Power Flow - max		1,012		465	36	0	0	0
Montevideo	MTV021	0.01	Unintentional Islanding - min	0.52	Reverse Power Flow - max		1,279		734	5082	2035	42	1035
Montevideo	MTV022	0.06	Unintentional Islanding - min	0.6	Reverse Power Flow - max		1,279		687	5082	2035	5040	1000

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Morristown	MTW021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		554		554	1095	5018	1095	5018
Maynard	MYN021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		482		482	2000	0	2000	0
Nerstrand	NER021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		341		341	3081	16	3081	16
Nine Mile Creek	NMC063	1.52	Reverse Power Flow - min	1.52	Reverse Power Flow - max		10,765		5,358	0	0	0	0
Nine Mile Creek	NMC064	1.59	Reverse Power Flow - min	1.59	Reverse Power Flow - max		10,765		5,309	0	0	0	0
Nine Mile Creek	NMC082	0.11	Unintentional Islanding - min	1.72	Reverse Power Flow - max		12,246		3,429	103	10	14	10
Nine Mile Creek	NMC083	0.9	Thermal for Gen - min	1.77	Reverse Power Flow - max		12,246		2,670	103	10	29	0
Nine Mile Creek	NMC092	0.9	Thermal for Gen - min	1.88	Reverse Power Flow - max		12,246		2,207	103	10	54	0
Nine Mile Creek	NMC093	0.9	Thermal for Gen - min	1.84	Reverse Power Flow - max		12,246		2,598	103	10	6	0
Northfield	NOF061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		4,724		1,696	15591	2057	15591	2057
Northfield	NOF062	0.7	Thermal for Gen - min	2.03	Reverse Power Flow - max		4,724		1,502	15591	2057	0	0
Northfield	NOF071	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		4,371		1,696	6930	3019	6820	2019
Northfield	NOF072	0.2	Thermal for Gen - min	1.77	Reverse Power Flow - max		4,371		2,489	6930	3019	80	1000
Northfield	NOF073	1.15	Reverse Power Flow - min	1.15	Reverse Power Flow - max		4,371		699	6930	3019	30	0
Oakdale	OAD061	0.9	Thermal for Gen - min	1.7	Reverse Power Flow - max		8,481		2,138	331	22	19	4
Oakdale	OAD062	0.74	Reverse Power Flow - min	0.74	Reverse Power Flow - max		8,481		1,020	331	22	7	5
Oakdale	OAD063	0.9	Thermal for Gen - min	1.6	Reverse Power Flow - max		8,481		2,435	331	22	24	8
Oakdale	OAD064	0.69	Reverse Power Flow - min	0.69	Reverse Power Flow - max		8,481		2,309	331	22	4	5
Oakdale	OAD065	0.25	Unintentional Islanding - min	1.3	Reverse Power Flow - max		8,481		2,121	331	22	277	0
Oakdale	OAD071	0.5	Thermal for Gen - min	1.49	Reverse Power Flow - max		7,266		2,220	333	91	22	9
Oakdale	OAD072	0.7	Thermal for Gen - min	2.16	Reverse Power Flow - max		7,266		2,354	333	91	39	20
Oakdale	OAD073	0.9	Thermal for Gen - min	1.52	Reverse Power Flow - max		7,266		1,649	333	91	10	41
Oakdale	OAD074	0.9	Thermal for Gen - min	1.36	Reverse Power Flow - max		7,266		1,746	333	91	201	10
Oakdale	OAD075	0.83	Unintentional Islanding - min	3.41	Reverse Power Flow - max		7,266		3,443	333	91	61	12
Oak Park	OPK065	0.4	Primary Over-Voltage - min	1.52	Reverse Power Flow - max		6,763		1,872	31	37	23	37
Oak Park	OPK066	0.52	Reverse Power Flow - min	0.52	Reverse Power Flow - max		6,763		881	31	37	0	0
Oak Park	OPK067	0	Unintentional Islanding - min	1.44	Reverse Power Flow - max		6,763		1,534	31	37	8	0
Oak Park	OPK071	0.63	Reverse Power Flow - min	0.63	Reverse Power Flow - max		7,251		870	358	4013	50	3
Oak Park	OPK072	0.9	Thermal for Gen - min	1.03	Reverse Power Flow - max		7,251		1,288	358	4013	3	0
Oak Park	OPK073	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		7,251		2,020	358	4013	169	65
Oak Park	OPK074	1.56	Reverse Power Flow - min	1.56	Reverse Power Flow - max		7,251		1,976	358	4013	0	0
Oak Park	OPK075	1	Reverse Power Flow - min	1	Reverse Power Flow - max		7,251		1,019	358	4013	0	0
Oak Park	OPK077	0.31	Unintentional Islanding - min	2.02	Reverse Power Flow - max		7,251		3,321	358	4013	136	3945
Orono	ORO061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		5,192		2,040	66	602	19	226
Orono	ORO062	0.9	Thermal for Gen - min	2.96	Reverse Power Flow - max		5,192		3,354	66	602	48	375
Osseo	OSS061	0.9	Thermal for Gen - min	1.94	Reverse Power Flow - max		14,186		2,154	275	8	54	0
Osseo	OSS062	0.9	Thermal for Gen - min	2.78	Reverse Power Flow - max		14,186		3,027	275	8	43	8
Osseo	OSS063	0.6	Primary Over-Voltage - min	0.76	Reverse Power Flow - max		14,186		1,005	275	8	57	0
Osseo	OSS064	0.5	Thermal for Gen - min	1.48	Reverse Power Flow - max		14,186		1,924	275	8	44	0
Osseo	OSS065	0.9	Thermal for Gen - min	1.6	Reverse Power Flow - max		14,186		2,983	275	8	43	0
Osseo	OSS066	1.5	Thermal for Gen - min	1.52	Reverse Power Flow - max		14,186		2,022	275	8	35	0
Osseo	OSS071	0.9	Thermal for Gen - min	1.89	Reverse Power Flow - max		11,369		1,879	178	389	76	178
Osseo	OSS072	0.37	Reverse Power Flow - min	0.37	Reverse Power Flow - max		11,369		447	178	389	36	120
Osseo	OSS073	0.8	Primary Over-Voltage - min	1.59	Reverse Power Flow - max		11,369		1,844	178	389	25	46
Osseo	OSS074	0.66	Reverse Power Flow - min	0.66	Reverse Power Flow - max		11,369		721	178	389	0	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Osseo	OSS075	1.4	Thermal for Gen - min	1.45	Reverse Power Flow - max		11,369		1,942	178	389	36	40
Osseo	OSS076	1.1	Thermal for Gen - min	1.26	Reverse Power Flow - max		11,369		1,414	178	389	5	0
Osseo	OSS077	0.9	Thermal for Gen - min	1.66	Reverse Power Flow - max		11,369		2,040	178	389	0	5
Paynesville Transmission	PAT312	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		5,428		5,428	2085	3000	2085	3000
Paynesville Transmission	PAT313	0	Reverse Power Flow - min	0	Reverse Power Flow - max		4,830		4,170	16041	2018	16041	2018
Paynesville Transmission	PAT314	0.4	Primary Over-Voltage - min	0.48	Reverse Power Flow - max		4,830		701	16041	2018	0	0
Pine Bend	PBE061	0.5	Thermal for Gen - min	0.91	Reverse Power Flow - max		1,084		1,084	5	990	5	990
Pine Island	PIL021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		940		940	8175	643	8101	632
Pine Island	PIL022	0.01	Unintentional Islanding - min	1.09	Reverse Power Flow - max		1,392		1,392	8175	643	74	11
Pipestone	PIP061	0.6	Thermal for Gen - min	1.94	Reverse Power Flow - max		3,746		2,121	116	1000	8	0
Pipestone	PIP062	0.5	Thermal for Gen - min	1.06	Reverse Power Flow - max		3,746		1,140	116	1000	109	1000
Pipestone	PIP090	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		601		601	6298	1059	6298	1059
Parkers Lake	PKL061	1.1	Thermal for Gen - min	2.77	Reverse Power Flow - max		11,916		2,902	1034	39	0	0
Parkers Lake	PKL062	1.1	Thermal for Gen - min	1.14	Reverse Power Flow - max		11,916		1,237	1034	39	121	0
Parkers Lake	PKL063	0.7	Primary Over-Voltage - min	0.84	Reverse Power Flow - max		11,916		922	1034	39	5	0
Parkers Lake	PKL064	1.1	Thermal for Gen - min	1.62	Reverse Power Flow - max		11,916		1,803	1034	39	0	33
Parkers Lake	PKL065	1.2	Thermal for Gen - min	1.42	Reverse Power Flow - max		11,916		1,612	1034	39	888	0
Parkers Lake	PKL066	0.6	Reverse Power Flow - min	0.6	Reverse Power Flow - max		11,916		806	1034	39	20	6
Parkers Lake	PKL071	0.9	Thermal for Gen - min	2.29	Reverse Power Flow - max		12,462		2,402	139	129	54	120
Parkers Lake	PKL072	0.9	Thermal for Gen - min	1.19	Reverse Power Flow - max		12,462		1,265	139	129	60	0
Parkers Lake	PKL073	0.72	Reverse Power Flow - min	0.72	Reverse Power Flow - max		12,462		854	139	129	0	0
Parkers Lake	PKL074	0.7	Primary Over-Voltage - min	1.94	Reverse Power Flow - max		12,462		2,231	139	129	0	4
Parkers Lake	PKL075	0.7	Primary Over-Voltage - min	1.69	Reverse Power Flow - max		12,462		2,002	139	129	25	6
Parkers Lake	PKL081	0.9	Primary Over-Voltage - min	1.01	Reverse Power Flow - max		10,539		1,414	180	56	5	0
Parkers Lake	PKL082	0.2	Thermal for Gen - min	1.3	Reverse Power Flow - max		10,539		1,432	180	56	6	0
Parkers Lake	PKL083	1.5	Thermal for Gen - min	1.85	Reverse Power Flow - max		10,539		1,965	180	56	7	11
Parkers Lake	PKL084	1.1	Thermal for Gen - min	2.52	Reverse Power Flow - max		10,539		2,657	180	56	78	0
Parkers Lake	PKL085	1	Primary Over-Voltage - min	1.48	Reverse Power Flow - max		10,539		1,800	180	56	84	45
Plato	PLA022	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		2,693		510	58	6000	58	6000
Plato	PLA023	2.07	Unintentional Islanding - min	2.08	Reverse Power Flow - max		2,693		1,712	58	6000	0	0
Prior	PRR061	0.3	Thermal for Gen - min	1.82	Reverse Power Flow - max		4,563		2,135	417	52	271	29
Prior	PRR062	1.1	Thermal for Gen - min	1.11	Reverse Power Flow - max		4,563		811	417	52	63	0
Prior	PRR063	0.9	Thermal for Gen - min	1.03	Reverse Power Flow - max		4,563		1,261	417	52	83	22
Ramsey	RAM061	1	Thermal for Gen - min	1.13	Reverse Power Flow - max		4,046		1,540	198	55	17	27
Ramsey	RAM062	0.14	Unintentional Islanding - min	1.26	Reverse Power Flow - max		4,046		1,414	198	55	59	18
Ramsey	RAM063	0.21	Unintentional Islanding - min	1.42	Reverse Power Flow - max		4,046		2,012	198	55	10	6
Ramsey	RAM064	0.9	Thermal for Gen - min	1.72	Reverse Power Flow - max		4,046		2,354	198	55	111	5
Ramsey	RAM071	1.1	Thermal for Gen - min	1.94	Reverse Power Flow - max		10,073		2,879	405	335	76	65
Ramsey	RAM072	0.24	Unintentional Islanding - min	1.19	Reverse Power Flow - max		10,073		1,712	405	335	88	20
Ramsey	RAM073	0.74	Additional Element Fault Current - min	1.04	Reverse Power Flow - max		10,073		2,408	405	335	204	199
Ramsey	RAM077	0.14	Unintentional Islanding - min	2.44	Reverse Power Flow - max		10,073		2,693	405	335	37	51
Rapidan	RAP081	0.04	Unintentional Islanding - min	0.29	Breaker Relay Reduction of Reach - max		474		474	5	1244	5	1244

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Richmond	RCH061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		775		775	5005	6	5005	6
Red River	RED091	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max				5,338	0	0	0	0
Red Wing	REW021	0.18	Unintentional Islanding - min	1.11	Reverse Power Flow - max		4,103		632	4995	65	31	10
Red Wing	REW022	0.8	Thermal for Gen - min	1.25	Reverse Power Flow - max		4,103		1,100	4995	65	30	43
Red Wing	REW023	0	Unintentional Islanding - min	1.45	Reverse Power Flow - max		4,103		1,687	4995	65	4934	11
Red Wing	REW031	0.1	Primary Over-Voltage - min	1.12	Reverse Power Flow - max		4,855		2,102	177	29	86	0
Red Wing	REW032	0.65	Reverse Power Flow - min	0.65	Reverse Power Flow - max		4,855		900	177	29	20	4
Red Wing	REW033	0.4	Primary Over-Voltage - min	0.65	Reverse Power Flow - max		4,855		1,044	177	29	71	25
Riverside	RIV061	0.9	Thermal for Gen - min	1.24	Reverse Power Flow - max		7,367		1,704	976	1022	283	25
Riverside	RIV062	0.9	Thermal for Gen - min	1.76	Reverse Power Flow - max		7,367		1,887	976	1022	15	2
Riverside	RIV063	0.57	Unintentional Islanding - min	1.28	Reverse Power Flow - max		7,367		2,797	976	1022	597	995
Riverside	RIV064	0.8	Thermal for Gen - min	1.31	Reverse Power Flow - max		7,367		1,341	976	1022	80	0
Riverside	RIV065	0.82	Reverse Power Flow - min	0.82	Reverse Power Flow - max		7,367		537	976	1022	0	0
Riverside	RIV066	0.74	Reverse Power Flow - min	0.74	Reverse Power Flow - max		7,367		747	976	1022	0	0
Riverside	RIV071	1.04	Reverse Power Flow - min	1.04	Reverse Power Flow - max		7,424		741	617	9	0	0
Riverside	RIV072	1.09	Reverse Power Flow - min	1.09	Reverse Power Flow - max		7,424		186	617	9	0	0
Riverside	RIV073	0.9	Thermal for Gen - min	1.1	Reverse Power Flow - max		7,424		1,470	617	9	599	3
Riverside	RIV074	0.32	Reverse Power Flow - min	0.32	Reverse Power Flow - max		7,424		123	617	9	0	0
Riverside	RIV075	0.79	Reverse Power Flow - min	0.79	Reverse Power Flow - max		7,424		824	617	9	0	6
Riverside	RIV076	0.9	Thermal for Gen - min	1.35	Reverse Power Flow - max		7,424		2,139	617	9	19	0
Rogers Lake	RLK064	0.6	Primary Over-Voltage - min	1.37	Reverse Power Flow - max		11,235		1,703	365	532	70	18
Rogers Lake	RLK065	0.9	Thermal for Gen - min	1.48	Reverse Power Flow - max		11,235		2,209	365	532	79	395
Rogers Lake	RLK066	0.9	Thermal for Gen - min	1.58	Reverse Power Flow - max		11,235		900	365	532	71	51
Rogers Lake	RLK068	1.1	Thermal for Gen - min	1.1	Reverse Power Flow - max		11,235		2,864	365	532	0	0
Rogers Lake	RLK069	0.2	Thermal for Gen - min	1.72	Reverse Power Flow - max		11,235		2,309	365	532	144	68
Rogers Lake	RLK071	0.02	Unintentional Islanding - min	2.65	Reverse Power Flow - max		8,732		2,730	203	191	36	163
Rogers Lake	RLK072	0.9	Thermal for Gen - min	0.98	Reverse Power Flow - max		8,732		1,432	203	191	55	5
Rogers Lake	RLK073	0.9	Thermal for Gen - min	1.49	Reverse Power Flow - max		8,732		2,126	203	191	27	23
Rogers Lake	RLK079	0.6	Thermal for Gen - min	1.63	Reverse Power Flow - max		8,732		2,596	203	191	85	0
Rosemount	RMT311	0	Reverse Power Flow - min	0	Reverse Power Flow - max		3,726		782	10277	2017	10000	1000
Rosemount	RMT312	0	Additional Element Fault Current - min	0.01	Breaker Relay Reduction of Reach - max		5,515		4,688	10277	2017	277	1017
Renville	RNV021	0.4	Primary Over-Voltage - min	0.5	Reverse Power Flow - max		603		603	1093	2028	1093	2028
Rock River	ROC090	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		754		72	6710	0	4710	0
Rock River	ROC091	0	Reverse Power Flow - min	0	Reverse Power Flow - max		754		682	6710	0	2000	0
Rose Place	RPL061	0.9	Thermal for Gen - min	1.57	Reverse Power Flow - max		8,848		2,463	343	829	186	0
Rose Place	RPL062	1.04	Reverse Power Flow - min	1.04	Reverse Power Flow - max		8,848		1,094	343	829	0	0
Rose Place	RPL063	1	Thermal for Gen - min	2.96	Reverse Power Flow - max		8,848		2,988	343	829	84	41
Rose Place	RPL064	0.9	Thermal for Gen - min	2.82	Reverse Power Flow - max		8,848		2,849	343	829	73	788
Rose Place	RPL071	0.9	Thermal for Gen - min	2.09	Reverse Power Flow - max		10,288		2,684	94	50	35	0
Rose Place	RPL072	0.19	Unintentional Islanding - min	1.13	Reverse Power Flow - max		10,288		1,500	94	50	0	0
Rose Place	RPL073	0.9	Thermal for Gen - min	1.13	Reverse Power Flow - max		10,288		2,113	94	50	0	0
Rose Place	RPL074	0.9	Thermal for Gen - min	1.61	Reverse Power Flow - max		10,288		2,893	94	50	5	50
Rose Place	RPL075	0.9	Thermal for Gen - min	0.98	Reverse Power Flow - max		10,288		497	94	50	54	0
Red Rock	RRK061	1.5	Thermal for Gen - min	1.75	Reverse Power Flow - max		13,124		1,099	91	3085	0	0
Red Rock	RRK062	1.5	Thermal for Gen - min	1.78	Reverse Power Flow - max		13,124		5,412	91	3085	0	0
Red Rock	RRK063	0.9	Thermal for Gen - min	1.57	Reverse Power Flow - max		13,124		3,081	91	3085	7	0
Red Rock	RRK064	0.9	Thermal for Gen - min	2.73	Reverse Power Flow - max		13,124		2,302	91	3085	84	3085

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Red Rock	RRK071	1.5	Thermal for Gen - min	2.63	Reverse Power Flow - max		8,805		6,628	0	0	0	0
Red Rock	RRK072	1.3	Thermal for Gen - min	1.4	Reverse Power Flow - max		8,805		1,221	0	0	0	0
Red Rock	RRK081	2.2	Reverse Power Flow - min	2.2	Reverse Power Flow - max		9,177		5,567	123	17	0	0
Red Rock	RRK082	0.1	Primary Over-Voltage - min	0.77	Reverse Power Flow - max		9,177		1,063	123	17	123	17
Red Rock	RRK083	0.2	Thermal for Gen - min	2.04	Reverse Power Flow - max		9,177		2,485	123	17	0	0
Rich Spring	RSP061	0.91	Unintentional Islanding - min	0.93	Reverse Power Flow - max		1,179		1,179	0	986	0	986
Rich Valley	RVA061	0.5	Primary Over-Voltage - min	2.6	Reverse Power Flow - max		7,695		2,696	122	29	62	29
Rich Valley	RVA062	0.2	Primary Over-Voltage - min	1.27	Breaker Relay Reduction of Reach - max		7,695		2,228	122	29	60	0
Rich Valley	RVA063	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		7,695		0	122	29	0	0
Riverwood	RWD061	0.5	Thermal for Gen - min	0.94	Reverse Power Flow - max		5,708		1,533	215	1795	0	8
Riverwood	RWD062	0.9	Thermal for Gen - min	1.79	Reverse Power Flow - max		5,708		2,035	215	1795	93	20
Riverwood	RWD063	1.3	Primary Over-Voltage - min	1.38	Reverse Power Flow - max		5,708		2,013	215	1795	122	1768
Riverwood	RWD081	0.08	Unintentional Islanding - min	0.84	Reverse Power Flow - max		3,276		1,591	207	49	91	16
Riverwood	RWD082	0.5	Thermal for Gen - min	1.13	Reverse Power Flow - max		3,276		1,790	207	49	117	33
Sauk River	SAK311	0	Unintentional Islanding - min	0.8	Breaker Relay Reduction of Reach - max		5,240		3,497	9171	5917	98	5917
Sauk River	SAK312	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		5,240		3,878	9171	5917	9073	0
Sauk River	SAK321	0.74	Unintentional Islanding - min	2.68	Reverse Power Flow - max		2,707		2,707	19	0	19	0
Savage	SAV063	0.31	Unintentional Islanding - min	2.1	Reverse Power Flow - max		4,027		2,164	68	43	21	16
Savage	SAV067	0.5	Primary Over-Voltage - min	2.06	Reverse Power Flow - max		4,027		3,507	68	43	0	0
Savage	SAV069	0	Unintentional Islanding - min	1.34	Reverse Power Flow - max		1,167		280	68	43	47	27
Savage	SAV071	0.9	Thermal for Gen - min	1.94	Reverse Power Flow - max		2,850		1,781	60	37	0	11
Savage	SAV072	0.49	Reverse Power Flow - min	0.49	Reverse Power Flow - max		2,850		1,016	60	37	0	0
Savage	SAV073	0.85	Reverse Power Flow - min	0.85	Reverse Power Flow - max		2,850		1,144	60	37	60	26
Scandia	SCA021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		2,259		2,259	14247	1071	14247	1071
Sacred Heart	SCH001	0.1	Primary Over-Voltage - min	0.16	Reverse Power Flow - max		634		199	1042	2000	0	0
Sacred Heart	SCH211	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		634		434	1042	2000	1042	2000
Saint Cloud	SCL311	0.9	Primary Over-Voltage - min	1.91	Reverse Power Flow - max		16,286		3,569	328	703	9	0
Saint Cloud	SCL312	0.1	Thermal for Gen - min	0.88	Breaker Relay Reduction of Reach - max		16,286		6,687	328	703	63	433
Saint Cloud	SCL313	0	Unintentional Islanding - min	1.61	Breaker Relay Reduction of Reach - max		16,286		8,219	328	703	257	270
Saint Cloud	SCL322	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		6,789		4,456	29192	7925	29192	7925
Saint Cloud	SCL323	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		6,789		2,116	29192	7925	0	0
Salida Crossing	SDX061	2.9	Reverse Power Flow - min	2.9	Reverse Power Flow - max		1,265		1,265	0	0	0	0
Salida Crossing	SDX311	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		4,689		1,322	8050	3000	8050	3000
Salida Crossing	SDX312	0.66	Reverse Power Flow - min	0.66	Reverse Power Flow - max		4,689		1,461	8050	3000	0	0
Salida Crossing	SDX313	2.47	Reverse Power Flow - min	2.47	Reverse Power Flow - max		4,689		2,485	8050	3000	0	0
Sedan	SED061	0.04	Reverse Power Flow - min	0.04	Reverse Power Flow - max		70		70	0	14	0	14
Shepard	SHP061	0.89	Reverse Power Flow - min	0.89	Reverse Power Flow - max		3,354		1,334	100	82	48	37
Shepard	SHP062	0.5	Thermal for Gen - min	1.87	Reverse Power Flow - max		3,354		2,844	100	82	52	45

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Shepard	SHP063	0.7	Reverse Power Flow - min	0.7	Reverse Power Flow - max		3,354		1,221	100	82	0	0
Shepard	SHP071	0.9	Thermal for Gen - min	1.47	Reverse Power Flow - max		3,354		2,040	51	40	4	6
Shepard	SHP072	0.3	Thermal for Gen - min	0.96	Reverse Power Flow - max		3,354		1,105	51	40	46	34
Sibley Park	SIP061	0	Unintentional Islanding - min	0.45	Reverse Power Flow - max		11,075		2,528	53	11	47	11
Sibley Park	SIP062	1.98	Reverse Power Flow - min	1.98	Reverse Power Flow - max		11,075		2,024	53	11	0	0
Sibley Park	SIP063	0.6	Thermal for Gen - min	1.43	Reverse Power Flow - max		11,075		1,283	53	11	5	0
Sibley Park	SIP071	0.19	Unintentional Islanding - min	1.57	Reverse Power Flow - max		7274		2,637	98	20	27	4
Sibley Park	SIP072	0.5	Primary Over-Voltage - min	1.36	Reverse Power Flow - max		7274		2,215	98	20	24	10
Sibley Park	SIP073	0.11	Unintentional Islanding - min	1.29	Reverse Power Flow - max		7274		1,874	98	20	47	7
Saint John's	SJO001	0.47	Reverse Power Flow - min	0.47	Reverse Power Flow - max		505		505	0	0	0	0
Saint Louis Park	SLP071	0.5	Thermal for Gen - min	1.56	Reverse Power Flow - max		18,761		2,171	304	81	3	10
Saint Louis Park	SLP072	0.21	Unintentional Islanding - min	1.85	Reverse Power Flow - max		18,761		2,489	304	81	17	36
Saint Louis Park	SLP073	0.16	Unintentional Islanding - min	1.95	Reverse Power Flow - max		18,761		2,391	304	81	38	3
Saint Louis Park	SLP074	0.4	Thermal for Gen - min	1.83	Breaker Relay Reduction of Reach - max		18,761		2,869	304	81	174	7
Saint Louis Park	SLP075	0.5	Thermal for Gen - min	1.51	Reverse Power Flow - max		18,761		2,231	304	81	58	4
Saint Louis Park	SLP076	0.9	Thermal for Gen - min	1.82	Reverse Power Flow - max		18,761		2,499	304	81	14	20
Saint Louis Park	SLP077	0.9	Thermal for Gen - min	1.28	Reverse Power Flow - max		18,761		1,947	304	81	0	3
Saint Louis Park	SLP081	0.9	Thermal for Gen - min	1.4	Reverse Power Flow - max		15,620		2,058	592	164	15	35
Saint Louis Park	SLP082	0.9	Thermal for Gen - min	2.05	Reverse Power Flow - max		15,620		3,047	592	164	188	38
Saint Louis Park	SLP083	0.9	Thermal for Gen - min	1.54	Reverse Power Flow - max		15,620		2,210	592	164	109	6
Saint Louis Park	SLP084	0.9	Thermal for Gen - min	1.48	Reverse Power Flow - max		15,620		2,034	592	164	170	41
Saint Louis Park	SLP085	0.9	Thermal for Gen - min	1.52	Reverse Power Flow - max		15,620		2,021	592	164	52	28
Saint Louis Park	SLP086	0.9	Thermal for Gen - min	1.42	Reverse Power Flow - max		15,620		2,758	592	164	44	6
Saint Louis Park	SLP087	0.9	Thermal for Gen - min	0.92	Reverse Power Flow - max		15,620		1,494	592	164	14	10
Saint Louis Park	SLP091	0.9	Thermal for Gen - min	0.94	Reverse Power Flow - max		14,536		1,343	783	248	0	0
Saint Louis Park	SLP092	0.9	Thermal for Gen - min	1.65	Reverse Power Flow - max		14,536		2,177	783	248	526	28
Saint Louis Park	SLP093	0.8	Primary Over-Voltage - min	1.61	Reverse Power Flow - max		14,536		3,199	783	248	73	0
Saint Louis Park	SLP094	0.9	Thermal for Gen - min	1.24	Reverse Power Flow - max		14,536		2,031	783	248	67	44
Saint Louis Park	SLP095	0.41	Unintentional Islanding - min	0.98	Reverse Power Flow - max		14,536		1,743	783	248	4	6
Saint Louis Park	SLP096	0.9	Thermal for Gen - min	1.86	Reverse Power Flow - max		14,536		2,618	783	248	75	158
Saint Louis Park	SLP097	0.9	Thermal for Gen - min	1.21	Reverse Power Flow - max		14,536		1,934	783	248	39	12
Saint Louis Park	SLP321	0.7	Thermal for Gen - min	2.51	Reverse Power Flow - max		11,613		4,367	76	48	68	48
Saint Louis Park	SLP322	0.4	Thermal for Gen - min	3	Breaker Relay Reduction of Reach - max		11,613		6,217	76	48	8	0
Slayton West	SLW061	0	Thermal for Gen - min	0	Reverse Power Flow - max		1,140		265	1044	0	1020	0
Slayton West	SLW062	0.76	Reverse Power Flow - min	0.76	Reverse Power Flow - max		1,140		927	1044	0	24	0
Summit Ave	SMT061	0.7	Thermal for Gen - min	1.08	Reverse Power Flow - max		11,602		2,637	8112	1031	2	0
Summit Ave	SMT062	0.04	Unintentional Islanding - min	0.52	Breaker Relay Reduction of Reach - max		11,602		2,469	8112	1031	0	31
Summit Ave	SMT063	0.35	Unintentional Islanding - min	1.19	Reverse Power Flow - max		11,602		1,157	8112	1031	20	0
Summit Ave	SMT071	1.5	Thermal for Gen - min	2.2	Reverse Power Flow - max		11,602		1,079	8112	1031	18	0
Summit Ave	SMT072	0	Unintentional Islanding - min	0.76	Breaker Relay Reduction of Reach - max		11,602		2,640	8112	1031	8072	1000
Summit Ave	SMT081	0.9	Thermal for Gen - min	2.81	Reverse Power Flow - max		7,798		3,020	1260	15	0	0
Summit Ave	SMT082	0.1	Primary Over-Voltage - min	0.7	Breaker Relay Reduction of Reach - max		7,798		1,107	1260	15	61	8
Summit Ave	SMT091	0.4	Thermal for Gen - min	2.55	Reverse Power Flow - max		7,798		2,576	1260	15	158	0
Summit Ave	SMT092	0.4	Thermal for Gen - min	0.4	Reverse Power Flow - max		7,798		483	1260	15	1040	7
South Haven	SOH001	0.1	Primary Over-Voltage - min	0.1	Reverse Power Flow - max		112		112	0	0	0	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Southtown	SOU061	0.4	Thermal for Gen - min	1.46	Reverse Power Flow - max		12,369		1,851	708	246	30	39
Southtown	SOU063	1	Thermal for Gen - min	1.74	Reverse Power Flow - max		12,369		2,544	708	246	223	66
Southtown	SOU064	0.2	Thermal for Gen - min	2.25	Reverse Power Flow - max		12,369		2,635	708	246	117	75
Southtown	SOU065	1.2	Primary Over-Voltage - min	1.4	Reverse Power Flow - max		12,369		2,862	708	246	179	27
Southtown	SOU066	0.97	Reverse Power Flow - min	0.97	Reverse Power Flow - max		12,369		1,089	708	246	98	14
Southtown	SOU069	0.29	Unintentional Islanding - min	1.1	Reverse Power Flow - max		12,369		1,260	708	246	62	26
Southtown	SOU072	0.9	Thermal for Gen - min	1.94	Reverse Power Flow - max		12,680		2,586	676	281	70	82
Southtown	SOU073	0.85	Reverse Power Flow - min	0.85	Reverse Power Flow - max		12,680		1,036	676	281	76	16
Southtown	SOU075	0.4	Thermal for Gen - min	1.88	Reverse Power Flow - max		12,680		2,391	676	281	125	69
Southtown	SOU076	0.4	Thermal for Gen - min	1	Reverse Power Flow - max		12,680		1,099	676	281	79	3
Southtown	SOU077	0.9	Thermal for Gen - min	2.05	Reverse Power Flow - max		12,680		2,179	676	281	165	36
Southtown	SOU078	0.2	Thermal for Gen - min	1.55	Reverse Power Flow - max		12,680		1,175	676	281	0	6
Southtown	SOU079	0.4	Thermal for Gen - min	1.53	Reverse Power Flow - max		12,680		1,900	676	281	159	70
Southtown	SOU081	0.9	Thermal for Gen - min	0.9	Reverse Power Flow - max		15,704		1,216	768	261	69	34
Southtown	SOU082	0.4	Thermal for Gen - min	1.94	Reverse Power Flow - max		15,704		2,854	768	261	127	75
Southtown	SOU083	0.4	Thermal for Gen - min	1.69	Reverse Power Flow - max		15,704		1,427	768	261	147	48
Southtown	SOU084	0.27	Reverse Power Flow - min	0.27	Reverse Power Flow - max		15,704		783	768	261	38	7
Southtown	SOU085	0.9	Thermal for Gen - min	1.62	Reverse Power Flow - max		15,704		3,248	768	261	0	0
Southtown	SOU086	0.4	Thermal for Gen - min	1.73	Reverse Power Flow - max		15,704		1,432	768	261	103	59
Southtown	SOU087	0.4	Thermal for Gen - min	1.18	Reverse Power Flow - max		15,704		1,204	768	261	269	38
Southtown	SOU088	0.2	Thermal for Gen - min	1.29	Reverse Power Flow - max		15,704		847	768	261	14	0
South Ridge	SRD211	0.2	Thermal for Gen - min	1.29	Reverse Power Flow - max		1,016		1,016	0	0	0	0
Saint Joseph	STO001	0.64	Reverse Power Flow - min	0.64	Reverse Power Flow - max		1,238		663	0	32	0	0
Saint Joseph	STO002	0.1	Primary Over-Voltage - min	0.57	Reverse Power Flow - max		1,238		640	0	32	0	32
Stewart	STW021	0.1	Primary Over-Voltage - min	0.42	Reverse Power Flow - max		358		358	0	3000	0	3000
Stockyards	STY061	0.7	Primary Over-Voltage - min	2.33	Reverse Power Flow - max		10,914		2,900	166	1187	29	9
Stockyards	STY062	0.8	Primary Over-Voltage - min	1.62	Reverse Power Flow - max		10,914		2,309	166	1187	18	0
Stockyards	STY063	0.5	Primary Over-Voltage - min	0.8	Primary Over-Voltage - max		10,914		2,550	166	1187	78	1003
Stockyards	STY065	0.6	Thermal for Gen - min	1.45	Reverse Power Flow - max		10,914		1,599	166	1187	42	175
Stockyards	STY071	0.9	Thermal for Gen - min	2.42	Reverse Power Flow - max		10,906		5,122	132	40	13	15
Stockyards	STY072	0.13	Unintentional Islanding - min	1.38	Reverse Power Flow - max		10,906		1,924	132	40	14	5
Stockyards	STY073	0.09	Unintentional Islanding - min	1.48	Reverse Power Flow - max		10,906		2,040	132	40	15	15
Stockyards	STY075	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		10,906		1,603	132	40	90	4
Swan Lake	SWN021	0.3	Primary Over-Voltage - min	0.4	Reverse Power Flow - max		1,042		429	6070	7008	56	0
Swan Lake	SWN022	0.01	Unintentional Islanding - min	0.49	Reverse Power Flow - max		1,042		710	6070	7008	6014	7008
Terminal	TER061	0.9	Thermal for Gen - min	1.52	Reverse Power Flow - max		17,255		2,388	547	87	350	24
Terminal	TER062	0.9	Thermal for Gen - min	1.3	Reverse Power Flow - max		17,255		2,631	547	87	135	39
Terminal	TER063	0.8	Thermal for Gen - min	1.39	Reverse Power Flow - max		17,255		2,765	547	87	53	24
Terminal	TER064	0.9	Thermal for Gen - min	1.34	Reverse Power Flow - max		17,255		1,276	547	87	0	0
Terminal	TER065	0.4	Thermal for Gen - min	1.43	Reverse Power Flow - max		17,255		4,521	547	87	10	0
Terminal	TER066	1.1	Thermal for Gen - min	1.5	Reverse Power Flow - max		17,255		2,670	547	87	0	0
Terminal	TER071	0.9	Thermal for Gen - min	1.73	Reverse Power Flow - max		7,609		2,134	134	1979	87	20
Terminal	TER072	1.2	Reverse Power Flow - min	1.2	Reverse Power Flow - max		7,609		838	134	1979	0	0
Terminal	TER073	0.1	Thermal for Gen - min	0.88	Breaker Relay Reduction of Reach - max		7,609		1,204	134	1979	0	125
Terminal	TER074	0.42	Reverse Power Flow - min	0.42	Reverse Power Flow - max		7,609		169	134	1979	0	0
Terminal	TER075	0.5	Reverse Power Flow - min	0.5	Reverse Power Flow - max		7,609		1,724	134	1979	47	1834
Terminal	TER076	0.69	Reverse Power Flow - min	0.69	Reverse Power Flow - max		7,609		510	134	1979	0	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Terminal	TER081	0.2	Thermal for Gen - min	1.87	Reverse Power Flow - max		10,380		2,481	114	514	29	514
Terminal	TER082	0.9	Thermal for Gen - min	1.5	Reverse Power Flow - max		10,380		2,230	114	514	45	0
Terminal	TER083	0.5	Thermal for Gen - min	1.29	Reverse Power Flow - max		10,380		947	114	514	41	0
Terminal	TER084	1.35	Reverse Power Flow - min	1.35	Reverse Power Flow - max		10,380		121	114	514	0	0
Terminal	TER085	0.9	Thermal for Gen - min	0.96	Reverse Power Flow - max		10,380		1,358	114	514	0	0
Terminal	TER086	1.03	Reverse Power Flow - min	1.03	Reverse Power Flow - max		10,380		2,017	114	514	0	0
Tanner's Lake	TLK023	2.08	Reverse Power Flow - min	2.08	Reverse Power Flow - max		16,651		2,155	277	48	0	0
Tanner's Lake	TLK032	1.04	Reverse Power Flow - min	1.04	Reverse Power Flow - max		15,221		1,168	166	11	0	0
Tanner's Lake	TLK034	0.73	Reverse Power Flow - min	0.73	Reverse Power Flow - max		15,221		932	166	11	0	0
Tanner's Lake	TLK061	0.9	Thermal for Gen - min	1.91	Reverse Power Flow - max		16,651		2,548	277	48	11	30
Tanner's Lake	TLK062	0.9	Thermal for Gen - min	1.46	Reverse Power Flow - max		16,651		2,345	277	48	181	3
Tanner's Lake	TLK064	0.9	Thermal for Gen - min	1.12	Reverse Power Flow - max		16,651		2,077	277	48	39	10
Tanner's Lake	TLK065	0.62	Reverse Power Flow - min	0.62	Reverse Power Flow - max		16,651		730	277	48	0	0
Tanner's Lake	TLK066	0.6	Thermal for Gen - min	1.55	Reverse Power Flow - max		16,651		2,571	277	48	0	0
Tanner's Lake	TLK067	0.5	Thermal for Gen - min	1.48	Reverse Power Flow - max		16,651		2,398	277	48	46	6
Tanner's Lake	TLK071	0.94	Reverse Power Flow - min	0.94	Reverse Power Flow - max		15,221		1,411	166	11	35	0
Tanner's Lake	TLK073	1	Thermal for Gen - min	1.04	Reverse Power Flow - max		15,221		1,321	166	11	56	0
Tanner's Lake	TLK075	0.9	Thermal for Gen - min	1.3	Reverse Power Flow - max		15,221		2,029	166	11	10	3
Tanner's Lake	TLK076	0.94	Reverse Power Flow - min	0.94	Reverse Power Flow - max		15,221		726	166	11	0	0
Tanner's Lake	TLK077	0.75	Unintentional Islanding - min	2.08	Reverse Power Flow - max		15,221		4,421	166	11	65	8
Tracy	TRA001	0.23	Reverse Power Flow - min	0.23	Reverse Power Flow - max		547		307	8	11	0	0
Tracy	TRA002	0.1	Primary Over-Voltage - min	0.23	Reverse Power Flow - max		547		240	8	11	8	11
Tracy Switching Station	TSS061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		680		680	4197	1059	4197	1059
Twin Lake	TWL061	1.1	Thermal for Gen - min	2	Reverse Power Flow - max		18,643		2,022	297	81	0	0
Twin Lake	TWL062	0.7	Primary Over-Voltage - min	1.21	Reverse Power Flow - max		18,643		1,703	297	81	47	0
Twin Lake	TWL063	1.2	Primary Over-Voltage - min	1.29	Reverse Power Flow - max		18,643		1,844	297	81	42	16
Twin Lake	TWL064	0.4	Primary Over-Voltage - min	1.37	Reverse Power Flow - max		18,643		1,746	297	81	14	0
Twin Lake	TWL065	0.9	Thermal for Gen - min	2.41	Reverse Power Flow - max		18,643		2,802	297	81	20	44
Twin Lake	TWL066	0.51	Unintentional Islanding - min	1.41	Reverse Power Flow - max		18,643		1,552	297	81	53	4
Twin Lake	TWL067	0.9	Thermal for Gen - min	1.21	Reverse Power Flow - max		18,643		1,503	297	81	5	4
Twin Lake	TWL068	0.5	Thermal for Gen - min	1.74	Reverse Power Flow - max		18,643		2,121	297	81	46	13
Twin Lake	TWL069	0.9	Thermal for Gen - min	1.7	Reverse Power Flow - max		18,643		1,811	297	81	71	0
Twin Lake	TWL071	0.8	Primary Over-Voltage - min	1.43	Reverse Power Flow - max		19,105		1,502	272	371	9	23
Twin Lake	TWL072	0.9	Thermal for Gen - min	2.76	Reverse Power Flow - max		19,105		2,915	272	371	72	0
Twin Lake	TWL073	0.43	Reverse Power Flow - min	0.43	Reverse Power Flow - max		19,105		707	272	371	0	191
Twin Lake	TWL074	0.9	Thermal for Gen - min	1.47	Reverse Power Flow - max		19,105		1,726	272	371	131	95
Twin Lake	TWL075	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		19,105		1,020	272	371	30	4
Twin Lake	TWL076	0.9	Thermal for Gen - min	1.93	Reverse Power Flow - max		19,105		2,121	272	371	14	58
Twin Lake	TWL077	0.9	Thermal for Gen - min	0.99	Reverse Power Flow - max		19,105		1,077	272	371	0	0
Twin Lake	TWL078	0.5	Thermal for Gen - min	1.6	Reverse Power Flow - max		19,105		1,712	272	371	8	0
Twin Lake	TWL079	0.12	Unintentional Islanding - min	3.38	Reverse Power Flow - max		19,105		3,513	272	371	7	0
Twin Lake	TWL081	0.8	Primary Over-Voltage - min	2.38	Reverse Power Flow - max		8,628		2,530	113	852	0	327
Twin Lake	TWL082	0.5	Thermal for Gen - min	1.9	Reverse Power Flow - max		8,628		1,924	113	852	36	480
Twin Lake	TWL083	0.9	Thermal for Gen - min	1.68	Reverse Power Flow - max		8,628		1,825	113	852	77	5
Twin Lake	TWL089	0.9	Thermal for Gen - min	1.96	Reverse Power Flow - max		8,628		2,121	113	852	0	40
Upper Levee	UPP061	0.9	Thermal for Gen - min	1.54	Reverse Power Flow - max		20,580		2,025	115	2018	0	2000
Upper Levee	UPP062	0.9	Thermal for Gen - min	2.02	Reverse Power Flow - max		20,580		3,096	115	2018	0	2
Upper Levee	UPP063	0.9	Thermal for Gen - min	1.75	Reverse Power Flow - max		20,580		2,929	115	2018	66	8
Upper Levee	UPP064	0.9	Thermal for Gen - min	2.04	Reverse Power Flow - max		20,580		2,340	115	2018	0	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Upper Levee	UPP065	1.1	Thermal for Gen - min	1.23	Reverse Power Flow - max		20,580		1,502	115	2018	0	0
Upper Levee	UPP066	0.3	Thermal for Gen - min	1.47	Reverse Power Flow - max		20,580		1,965	115	2018	14	0
Upper Levee	UPP067	0.72	Reverse Power Flow - min	0.72	Reverse Power Flow - max		20,580		539	115	2018	0	0
Upper Levee	UPP068	0.9	Thermal for Gen - min	1.35	Reverse Power Flow - max		20,580		1,460	115	2018	36	9
Upper Levee	UPP069	0.66	Reverse Power Flow - min	0.66	Reverse Power Flow - max		20,580		502	115	2018	0	0
Upper Levee	UPP081	0.9	Thermal for Gen - min	2.03	Reverse Power Flow - max		19,791		1,596	303	243	0	8
Upper Levee	UPP082	0.5	Thermal for Gen - min	1.67	Reverse Power Flow - max		19,791		2,416	303	243	113	49
Upper Levee	UPP083	1.03	Reverse Power Flow - min	1.03	Reverse Power Flow - max		19,791		869	303	243	0	0
Upper Levee	UPP084	0.1	Unintentional Islanding - min	1.94	Reverse Power Flow - max		19,791		3,093	303	243	77	59
Upper Levee	UPP085	0.9	Thermal for Gen - min	1.35	Reverse Power Flow - max		19,791		2,510	303	243	62	95
Upper Levee	UPP086	0.9	Thermal for Gen - min	1.73	Reverse Power Flow - max		19,791		1,883	303	243	28	32
Upper Levee	UPP088	1.99	Reverse Power Flow - min	1.99	Reverse Power Flow - max		19,791		3,752	303	243	0	0
Upper Levee	UPP089	0.9	Thermal for Gen - min	1.36	Reverse Power Flow - max		19,791		2,518	303	243	23	0
Vesili	VES021	0	Unintentional Islanding - min	0.54	Reverse Power Flow - max		731		731	7998	2043	7998	2043
Villard	VIL021	0.18	Reverse Power Flow - min	0.18	Reverse Power Flow - max		315		315	0	1000	0	1000
Viking	VKG061	1.35	Reverse Power Flow - min	1.35	Reverse Power Flow - max		8,538		1,547	902	24	21	5
Viking	VKG065	0.9	Thermal for Gen - min	1.48	Reverse Power Flow - max		8,538		2,509	902	24	28	0
Viking	VKG071	0.98	Reverse Power Flow - min	0.98	Reverse Power Flow - max		8,538		1,444	902	24	0	0
Viking	VKG072	0.9	Primary Over-Voltage - min	1.65	Reverse Power Flow - max		8,538		2,721	902	24	854	19
Vermillion	VMR061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		3,545		570	5087	2031	5015	2006
Vermillion	VMR062	0.9	Thermal for Gen - min	1.44	Reverse Power Flow - max		3,545		1,692	5087	2031	26	26
Vermillion	VMR063	0.31	Reverse Power Flow - min	0.31	Reverse Power Flow - max		3,545		1,282	5087	2031	45	0
Wabasha	WAB021	0.11	Unintentional Islanding - min	0.77	Reverse Power Flow - max		909		909	301	7	301	7
Wabasha	WAB031	0	Unintentional Islanding - min	1.15	Breaker Relay Reduction of Reach - max		1,914		1,914	3534	4194	3534	4194
Wakefield	WAK321	1.97	Reverse Power Flow - min	1.97	Reverse Power Flow - max		2,907		2,907	5036	11	5036	11
Waseca	WAS081	0	Unintentional Islanding - min	0.09	Reverse Power Flow - max		0		0	10000	0	10000	0
Waseca	WAS091	1.2	Thermal for Gen - min	6.96	Reverse Power Flow - max		12,807		7,403	8286	9137	0	3000
Waseca	WAS092	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		12,807		3,767	8286	9137	8286	6137
Waseca	WAS231	2.6	Reverse Power Flow - min	2.6	Reverse Power Flow - max		0		0	0	0	0	0
Waterville	WAT021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		775		775	3036	33	3036	33
Waterville	WAT081	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,758		1,758	6160	6032	6160	6032
Waterville	WAT221	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		680		680	5000	0	5000	0
Waverly	WAV021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		782		782	5033	21	5033	21
Williams Brothers Propane	WBP061	0.9	Primary Over-Voltage - min	1.23	Reverse Power Flow - max		5,970		4,748	30	0	30	0
Williams Brothers Propane	WBP062	1.2	Primary Over-Voltage - min	1.27	Reverse Power Flow - max		5,970		1,280	30	0	0	0
West Coon Rapids	WCR061	0.9	Primary Over-Voltage - min	1.08	Reverse Power Flow - max		6,125		1,716	77	40	30	5
West Coon Rapids	WCR062	0.7	Primary Over-Voltage - min	1.61	Reverse Power Flow - max		6,125		2,232	77	40	22	25
West Coon Rapids	WCR063	0.7	Primary Over-Voltage - min	1.9	Primary Over-Voltage - max		6,125		2,408	77	40	25	9
West Coon Rapids	WCR311	0.2	Thermal for Gen - min	3.44	Reverse Power Flow - max		9,135		5,930	140	99	63	59
West Coon Rapids	WCR321	0.1	Thermal for Gen - min	1.04	Breaker Relay Reduction of Reach - max		15,073		7,607	423	1162	267	21
West Coon Rapids	WCR322	0.7	Primary Over-Voltage - min	6.3	Reverse Power Flow - max		15,073		9,099	423	1162	156	1141

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Waconia	WCS062	0.71	Reverse Power Flow - min	0.71	Reverse Power Flow - max		2,341		1,020	9088	16	16	0
Waconia	WCS064	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		2,341		1,602	9088	16	9072	16
Waconia	WCS071	0.9	Thermal for Gen - min	1.78	Reverse Power Flow - max		3,566		2,085	2115	6	18	0
Waconia	WCS072	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		3,566		1,108	2115	6	2098	6
Woodbury	WDY311	0.2	Thermal for Gen - min	1.72	Breaker Relay Reduction of Reach - max		13,959		3,384	232	58	84	39
Woodbury	WDY312	1.5	Thermal for Gen - min	8.9	Reverse Power Flow - max		13,959		9,737	232	58	148	19
Woodbury	WDY321	0.9	Thermal for Gen - min	2.7	Reverse Power Flow - max		10,993		4,214	243	566	41	0
Woodbury	WDY322	3.8	Thermal for Gen - min	6	Reverse Power Flow - max		10,993		7,151	243	566	202	566
West Byron	WEB021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		2,586		2,586	5215	6000	5215	6000
West Faribault	WEF061	0.2	Thermal for Gen - min	1.31	Reverse Power Flow - max		1,923		1,923	18	37	18	37
West Faribault	WEF071	0.46	Unintentional Islanding - min	2.37	Reverse Power Flow - max		2,532		2,532	364	9025	364	9025
West Hastings	WEH021	0.4	Primary Over-Voltage - min	1.32	Reverse Power Flow - max		4,278		2,000	18	0	18	0
West Hastings	WEH022	0.8	Thermal for Gen - min	1.36	Reverse Power Flow - max		4,278		2,103	18	0	0	0
Wells Creek	WEL021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		520		520	1047	3013	1047	3013
Western	WES061	0.6	Thermal for Gen - min	1.57	Reverse Power Flow - max		13,771		2,720	365	921	45	0
Western	WES062	0.8	Thermal for Gen - min	1.34	Reverse Power Flow - max		13,771		2,025	365	921	213	85
Western	WES063	0.3	Primary Over-Voltage - min	0.98	Reverse Power Flow - max		13,771		1,947	365	921	82	0
Western	WES064	0.9	Thermal for Gen - min	1.86	Reverse Power Flow - max		13,771		2,976	365	921	7	173
Western	WES065	0.2	Primary Over-Voltage - min	1.55	Reverse Power Flow - max		13,771		2,891	365	921	18	663
Western	WES071	0.9	Thermal for Gen - min	1.42	Reverse Power Flow - max		15,536		2,010	297	207	9	8
Western	WES072	0.9	Thermal for Gen - min	2.67	Reverse Power Flow - max		15,536		2,864	297	207	51	70
Western	WES073	0.3	Primary Over-Voltage - min	1.76	Reverse Power Flow - max		15,536		2,010	297	207	52	62
Western	WES074	0.5	Thermal for Gen - min	2.35	Reverse Power Flow - max		15,536		2,746	297	207	111	34
Western	WES075	0.9	Thermal for Gen - min	1.51	Reverse Power Flow - max		15,536		2,532	297	207	23	4
Western	WES076	0.5	Thermal for Gen - min	1.6	Reverse Power Flow - max		15,536		2,040	297	207	52	29
Wilson	WIL071	0.9	Thermal for Gen - min	1.62	Reverse Power Flow - max		19,573		1,649	342	325	21	101
Wilson	WIL072	0.7	Thermal for Gen - min	1.53	Reverse Power Flow - max		19,573		2,760	342	325	0	40
Wilson	WIL073	0.9	Thermal for Gen - min	1.78	Reverse Power Flow - max		19,573		1,513	342	325	78	88
Wilson	WIL074	0.9	Thermal for Gen - min	1.29	Reverse Power Flow - max		19,573		1,930	342	325	65	0
Wilson	WIL075	0.9	Thermal for Gen - min	0.95	Reverse Power Flow - max		19,573		1,628	342	325	60	0
Wilson	WIL076	0.18	Unintentional Islanding - min	1.48	Reverse Power Flow - max		19,573		2,102	342	325	23	33
Wilson	WIL077	0	Unintentional Islanding - min	1.24	Reverse Power Flow - max		19,573		1,628	342	325	76	33
Wilson	WIL078	0.9	Thermal for Gen - min	1.2	Reverse Power Flow - max		19,573		1,875	342	325	8	10
Wilson	WIL079	1.4	Primary Over-Voltage - min	1.7	Reverse Power Flow - max		19,573		2,121	342	325	12	19
Wilson	WIL081	1	Thermal for Gen - min	1.69	Reverse Power Flow - max		18,861		2,138	304	167	94	0
Wilson	WIL082	0.7	Thermal for Gen - min	1.42	Reverse Power Flow - max		18,861		1,616	304	167	53	52
Wilson	WIL083	0.6	Thermal for Gen - min	0.82	Reverse Power Flow - max		18,861		1,513	304	167	8	0
Wilson	WIL084	0.6	Thermal for Gen - min	1.67	Reverse Power Flow - max		18,861		1,899	304	167	0	0
Wilson	WIL085	0.14	Unintentional Islanding - min	1.97	Reverse Power Flow - max		18,861		3,324	304	167	63	50
Wilson	WIL086	0.05	Unintentional Islanding - min	1.64	Reverse Power Flow - max		18,861		2,869	304	167	48	43
Wilson	WIL087	0.9	Thermal for Gen - min	1.91	Reverse Power Flow - max		18,861		3,152	304	167	30	0
Wilson	WIL088	0.5	Thermal for Gen - min	0.64	Reverse Power Flow - max		18,861		626	304	167	0	0
Wilson	WIL089	0.9	Thermal for Gen - min	1.89	Reverse Power Flow - max		18,861		3,147	304	167	8	23
Wilson	WIL091	0.9	Thermal for Gen - min	1.24	Reverse Power Flow - max		18,781		1,810	362	694	57	0
Wilson	WIL092	0.9	Thermal for Gen - min	1.44	Reverse Power Flow - max		18,781		1,894	362	694	134	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
Wilson	WIL093	0.9	Thermal for Gen - min	1.33	Reverse Power Flow - max		18,781		1,787	362	694	20	0
Wilson	WIL094	1.44	Reverse Power Flow - min	1.44	Reverse Power Flow - max		18,781		1,582	362	694	0	0
Wilson	WIL095	0.9	Thermal for Gen - min	1.6	Reverse Power Flow - max		18,781		2,977	362	694	0	0
Wilson	WIL096	0.9	Thermal for Gen - min	1.4	Reverse Power Flow - max		18,781		2,470	362	694	35	660
Wilson	WIL097	0.5	Thermal for Gen - min	1.61	Reverse Power Flow - max		18,781		2,105	362	694	81	8
Wilson	WIL098	0.6	Thermal for Gen - min	1.66	Reverse Power Flow - max		18,781		2,480	362	694	35	26
Winona	WIN021	0.1	Primary Over-Voltage - min	0.13	Reverse Power Flow - max		4,342		700	60	10	6	0
Winona	WIN022	0.1	Primary Over-Voltage - min	1.24	Reverse Power Flow - max		4,342		1,709	60	10	12	0
Winona	WIN023	0.1	Thermal for Gen - min	1.17	Reverse Power Flow - max		4,342		1,860	60	10	43	10
Winona	WIN032	0.2	Thermal for Gen - min	1.27	Reverse Power Flow - max		6,637		3,401	69	6	10	0
Winona	WIN033	0.8	Thermal for Gen - min	1.81	Reverse Power Flow - max		6,637		2,720	69	6	59	0
Winona	WIN034	0.1	Thermal for Gen - min	1.74	Reverse Power Flow - max		6,637		2,662	69	6	0	6
Winona	WIN041	0.6	Thermal for Gen - min	1.19	Reverse Power Flow - max		5,523		224	225	22	0	0
Winona	WIN042	0.22	Reverse Power Flow - min	0.22	Reverse Power Flow - max		5,523		2,039	225	22	21	11
Winona	WIN043	0.1	Thermal for Gen - min	1.52	Reverse Power Flow - max		5,523		2,309	225	22	205	11
Watkins	WKN001	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		392		392	801	0	801	0
Wobegon Trail	WOB021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		806		224	4005	1998	4005	1998
Wobegon Trail	WOB022	0.1	Thermal for Gen - min	0.45	Reverse Power Flow - max		806		300	4005	1998	0	0
West River Road	WRR061	1	Thermal for Gen - min	1.38	Reverse Power Flow - max		8,601		1,761	200	75	45	0
West River Road	WRR064	0.9	Thermal for Gen - min	2.41	Reverse Power Flow - max		8,601		2,729	200	75	155	75
West River Road	WRR065	1.1	Thermal for Gen - min	1.85	Reverse Power Flow - max		8,601		0	200	75	0	0
West River Road	WRR074	0.9	Thermal for Gen - min	1.77	Reverse Power Flow - max		10,807		2,721	264	148	0	0
West River Road	WRR075	1.5	Thermal for Gen - min	1.5	Reverse Power Flow - max		10,807		2,579	264	148	264	148
West River Road	WRR081	0.9	Thermal for Gen - min	1.67	Reverse Power Flow - max		8,583		2,225	120	118	0	29
West River Road	WRR084	0.06	Unintentional Islanding - min	0.77	Reverse Power Flow - max		8,583		2,316	120	118	0	66
West River Road	WRR085	0.06	Unintentional Islanding - max	0.77	Reverse Power Flow - max		8,583		1,008	120	118	120	23
Winsted	WSD061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,300		1,300	7012	0	7012	0
Westgate	WSG061	1.5	Thermal for Gen - min	1.85	Reverse Power Flow - max		11,116		1,649	468	165	31	17
Westgate	WSG062	0.01	Unintentional Islanding - min	1.11	Reverse Power Flow - max		11,116		1,700	468	165	40	100
Westgate	WSG063	1	Primary Over-Voltage - min	1.62	Reverse Power Flow - max		11,116		1,503	468	165	127	31
Westgate	WSG064	0.9	Primary Over-Voltage - min	1.54	Reverse Power Flow - max		11,116		2,400	468	165	27	0
Westgate	WSG065	0.7	Primary Over-Voltage - min	1.45	Reverse Power Flow - max		11,116		2,010	468	165	206	18
Westgate	WSG066	0.8	Primary Over-Voltage - min	1.94	Reverse Power Flow - max		11,116		1,513	468	165	37	0
Westgate	WSG071	1	Primary Over-Voltage - min	1.78	Reverse Power Flow - max		9,362		2,138	234	682	121	16
Westgate	WSG072	0.45	Reverse Power Flow - min	0.45	Reverse Power Flow - max		9,362		608	234	682	0	0
Westgate	WSG073	0.52	Reverse Power Flow - min	0.52	Reverse Power Flow - max		9,362		530	234	682	0	0
Westgate	WSG074	0.9	Primary Over-Voltage - min	1.9	Reverse Power Flow - max		9,362		3,415	234	682	50	0
Westgate	WSG075	1.2	Thermal for Gen - min	1.5	Reverse Power Flow - max		9,362		2,202	234	682	13	627
Westgate	WSG076	0.1	Thermal for Gen - min	1.2	Reverse Power Flow - max		9,362		1,334	234	682	50	40
Westgate	WSG351	0.5	Thermal for Gen - min	1.25	Reverse Power Flow - max		4,832		409	187	70	11	0
Westgate	WSG352	0.7	Thermal for Gen - min	2.74	Reverse Power Flow - max		4,832		3,714	187	70	177	70
Westgate	WSG361	0.3	Thermal for Gen - min	2.86	Breaker Relay Reduction of Reach - max		10,072		1,807	123	135	79	128
Westgate	WSG362	0.9	Primary Over-Voltage - min	3.52	Reverse Power Flow - max		10,072		5,295	123	135	44	8
Westport	WSP021	0.06	Reverse Power Flow - min	0.06	Reverse Power Flow - max		73		73	0	0	0	0

PROTECTED DATA SHADED

Substation	Feeder	Minimum Hosting Capacity (MW)	Min Limiting Factor	Maximum Hosting Capacity (MW)	Max Limiting Factor	Substation Transformer Forecasted Peak Load (kVA)	Substation Transformer Minimum Load (kVA)	Feeder 2020 Peak Load (kVA)	Feeder Daytime Minimum Load (kVA)	Substation Transformer Installed DG (kVA)	Substation Transformer Queued DG (kVA)	Feeder Installed DG (kVA)	Feeder Queued DG (kVA)
West Union	WSU021	0.03	Reverse Power Flow - min	0.03	Reverse Power Flow - max		29		29	0	0	0	0
Watab River	WTB021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		424		424	6081	0	6081	0
Watertown	WTN061	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,525		653	5104	11	5078	11
Watertown	WTN062	0.16	Unintentional Islanding - min	0.92	Reverse Power Flow - max		1,525		1,004	5104	11	26	0
West Waconia	WWK311	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		5,197		5,197	15949	1027	15949	1027
West Waconia	WWK321	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,826		1,826	6044	1049	6044	1049
Wyoming	WYO021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		4,938		2,815	5028	23	20	15
Wyoming	WYO022	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		4,938		2,556	5028	23	5008	8
Wyoming	WYO031	0.8	Thermal for Gen - min	2.27	Reverse Power Flow - max		7,423		2,500	50	25	39	8
Wyoming	WYO032	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		7,423		2,042	50	25	6	8
Wyoming	WYO033	0.33	Unintentional Islanding - min	2.12	Reverse Power Flow - max		7,423		2,476	50	25	4	10
Crossroads	XRD061	0.82	Reverse Power Flow - min	0.82	Reverse Power Flow - max		6,835		2,163	9	553	0	33
Crossroads	XRD062	1	Thermal for Gen - min	1.43	Reverse Power Flow - max		6,835		2,088	9	553	9	11
Crossroads	XRD063	0.9	Thermal for Gen - min	1.63	Reverse Power Flow - max		6,835		2,319	9	553	0	509
Crossroads	XRD075	0.9	Thermal for Gen - min	1.2	Reverse Power Flow - max		6,629		860	181	5	69	0
Crossroads	XRD076	0.05	Unintentional Islanding - min	1.22	Breaker Relay Reduction of Reach - max		6,629		2,602	181	5	78	5
Crossroads	XRD077	0.9	Thermal for Gen - min	1.33	Reverse Power Flow - max		6,629		2,280	181	5	34	0
Young America	YAM021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,163		1,163	4887	18	4887	18
Young America	YAM031	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		1,168		1,168	110	7	110	7
Yellow Medicine	YLM211	0.1	Primary Over-Voltage - min	0.66	Breaker Relay Reduction of Reach - max		1,686		1,185	54	6	36	0
Yellow Medicine	YLM212	0.14	Unintentional Islanding - min	0.46	Reverse Power Flow - max		1,686		589	54	6	18	6
Zumbro Falls	ZUF021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		745		745	4948	1212	4948	1212
Zumbrota	ZUM021	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		2,762		1,176	4145	11246	2041	0
Zumbrota	ZUM022	0	Primary Over-Voltage - min	0	Primary Over-Voltage - max		2,762		1,962	4145	11246	2104	11246