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March 31, 2020

–Via Electronic and U.S. Mail–

Steven M. Kahl, Executive Secretary
North Dakota Public Service Commission
Department 408
600 East Boulevard Avenue
Bismarck, ND 58505-0480

RE: 2019 METER TESTING RESULTS

Dear Mr. Kahl:

In accordance with sections 69.09.01.16 and 69.09.02.28 of the North Dakota Administrative Code, Northern States Power Company, an Xcel Energy company with operations in North Dakota, encloses summary results of the 2019 testing of the Company's North Dakota electric and natural gas meters.

A summary of the Company's 2019 electric meter testing results is provided in Attachment A to this filing.

As a result of a 2015 Commission Staff review of our meter testing tariff, it was recommended the Company also include a more detailed report of our electric meter random test results for meters within the NSP-Minnesota operating company (serving the states of Minnesota, North Dakota, and South Dakota). That information is included in Attachment B.

Attachment C provides a summary of our 2019 natural gas meter testing results.

Please call or email me if you have any questions about this report.

Sincerely,

DAVID H. SEDERQUIST
SR. REGULATORY/FINANCIAL CONSULTANT

Enclosures

**Xcel Energy - State of North Dakota
Electric Meter Testing
Summary of 2019 Results**

Meters	Acceptable ¹		Slow		Fast		No Register		
	#	%	#	%	#	%	#	%	
Random Sample Tests									
Self-contained Single & Polyphase	141	140	99.3%	1	0.7%	0	0.0%	0	0.0%
Transformer-rated Single & Polyphase	45	45	100.0%	0	0.0%	0	0.0%	0	0.0%
Total Random Tests	186	185	99.5%	1	0.5%	0	0.0%	0	0.0%
Periodic Tests									
Transformer-rated Polyphase (>600V) ²	34	34	100.0%	0	0.0%	0	0.0%	0	0.0%
Transformer-rated Polyphase (>1 MW) ³	45	45	100.0%	0	0.0%	0	0.0%	0	0.0%
Total Periodic Tests	79	79	100.0%	0	0.0%	0	0.0%	0	0.0%
2019 Electric Meter Tests:	265	264	99.6%	1	0.0%	0	0.0%	0	0.0%

¹ Meters that test within acceptable tolerance have an average error within plus or minus 2% of accurate

² Meters in substations on primary services above 600 volts

³ Meters with demands greater than 1 MW during the previous calendar year

See Section 3.1 *Metering and Testing* in Xcel Energy's North Dakota Electric Rate Book (NDPSC No. 2) for meter testing criterium and process.

Lots	Description (OPCO, Random Test, Manuf. Model, Test Code)	Manufacturer	Model	Form	Lot Size	Sample size ANSJ_ASQ_Z1_9 Inspection Level II	Meters Requested	# of Meters Tested	Full Load Sigma	Full Load Bar-x	Full Load Est. % Defect	Max. Allowable % Defect	Full Load Pass/Fail
573	MN,RT,ABB,D5S,AC,SN-79200000	ABB Power	D5S	2S	1,684	50	54	51	0.267	99.840	0.000	5.21	Pass
882	MN,RT,SCHLUM,J5S,IF	Schlumberger	J5S	2S	74,288	150	156	151	0.237	99.933	0.000	4.42	Pass
884	MN,RT,SCHLUM,J6S,LY	Schlumberger	J6S	4S	5	3	5	4	0.316	100.148	0.000	7.59	Pass
1077	MN,RT,SCHLUM,SL12S,MP	Schlumberger	SL12S	12S	2,809	50	54	52	0.195	100.333	0.000	5.21	Pass
1079	MN,RT,ABB,AB1,AI	ABB Power	AB1	1S	1,842	50	54	51	0.193	100.248	0.000	5.21	Pass
8001	MN,RT,SCHLUM,J4ES,AF	Schlumberger	J4ES	2S	992	35	40	36	0.422	100.257	0.000	5.58	Pass
8004	MN,RT,ABB,ABS-5U,MP	ABB Power	ABS-5U	12S	40,875	150	156	153	0.242	100.136	0.000	4.42	Pass
8006	MN,RT,ABB,AB1,AG	ABB Power	AB1	4S	106	10	12	11	0.204	100.090	0.000	7.26	Pass
8015	MN,RT,L&G,MTN12S,MP	Lanöys & Gyr	VMMW65E	12S	4,448	75	80	76	0.175	99.852	0.000	4.83	Pass
8016	MN,RT,SCHLUM,S12S,MP	Schlumberger	S12S	12S	5,791	75	80	76	0.274	100.160	0.000	4.83	Pass
8018	MN,RT,ABB,D4S5U,MP	ABB Power	D4S5U	12S	4,135	75	80	75	0.353	100.147	0.000	4.83	Pass
8019	MN,RT,ABB,D5S5U,MP	ABB Power	D5S5U	12S	6	3	5	3	0.165	99.747	0.000	7.59	Pass
8561	MN,RT,LANDIS&GYR,MQ5	Lanöys & Gyr	VMMW65E	3S	264	15	18	15	0.185	99.994	0.000	6.55	Pass
8731	MN,RT,S,SL5S,BW,FM14	Schlumberger	SL5S	14S	46	5	7	6	0.22	100.693	0.000	9.8	Pass
8734	MN,RT,D,MSE,AF,FM25	Lanöys & Gyr	MSE	2S	94	10	12	10	0.195	100.094	0.000	7.26	Pass
8735	MN,RT,D,M52SE,AF,FM2S	Lanöys & Gyr	M52SE	2S	17	4	6	6	0.154	99.957	0.000	10.88	Pass
8743	MN,RT,S,J5ES,AF,FM2S	Schlumberger	J5ES	2S	61	7	9	9	0.287	100.069	0.000	8.4	Pass
8745	MN,RT,W,A1D,TR,FM3S	ABB Power	A1D	3S	83	7	9	8	0.096	100.039	0.000	8.4	Pass
8747	MN,RT,W,A1D,TE,FM16S	ABB Power	A1D	16S	11,106	100	105	101	0.065	100.000	0.000	4.67	Pass
8748	MN,RT,W,A1D,TF,FM12S	ABB Power	A1D	12S	764	35	40	35	0.04	99.989	0.000	5.58	Pass
8753	MN,RT,W,A1R,KZ,FM9S	ABB Power	A1R	9S	26	5	7	6	0.142	100.130	0.000	9.8	Pass
8756	MN,RT,W,A1D,RJ,FM4S	ABB Power	A1D	4S	535	35	40	36	0.078	100.010	0.000	5.58	Pass
8763	MN,RT,S,S2S,MP,FM12S	Schlumberger	S2S	12S	373	20	23	23	0.298	99.981	0.000	6.18	Pass
8773	MN,RT,W,A1R+,Y8,FM3S	ABB Power	A1R+	3S	52	7	9	7	0.047	99.984	0.000	8.4	Pass
8779	MN,RT,G,V65S,BW,FM14S	General Electric	V65S	14S	24	4	6	4	0.391	99.472	0.000	10.88	Pass
8787	MN,RT,W,A1T+,Y1,FM16S	ABB Power	A1T+	16S	94	10	12	10	0.128	100.031	0.000	7.26	Pass
8834	MN,RT,E,A3R-AL,BA,X8,FM6/36S	Elster	A3R-AL	6S	641	35	40	36	0.04	99.963	0.000	5.58	Pass
8837	MN,RT,W,A1R+BA,FM6S	ABB Power	A1R+	6S	137	10	12	10	0.044	99.977	0.000	7.26	Pass
8849	MN,RT,D,AL,NX,FM2S	Lanöys & Gyr	AL	2S	11,529	150	156	150	0.097	100.040	0.000	4.42	Pass
8850	MN,RT,D,AL,TF,FM12S	Lanöys & Gyr	AL	12S	36,849	150	156	150	0.092	100.072	0.000	4.42	Pass
8857	MN,RT,D,AL,ALF,NY,FM2S	Lanöys & Gyr	AL (F)	2S	2,364	50	54	52	0.118	100.016	0.000	5.21	Pass
8868	MN,RT,D,AL,ALF,TR,FM3S	Lanöys & Gyr	AL (F)	3S	47	5	7	7	0.024	99.987	0.000	9.8	Pass
8871	MN,RT,D,AL,ZS,FM1S	Lanöys & Gyr	AL	1S	530	35	40	36	0.069	100.048	0.000	5.58	Pass
8899	MN,RT,I,S,C1S,C1SRC,C1SRC,2B,FM1S	Itron	C1S (C, RC)	1S	2,139	50	54	50	0.136	99.953	0.000	5.21	Pass
8901	MN,RT,E,W,A1T+,A1TL+,NX,FM2S	Elster	A1T+, A1TL+	2S	10,133	100	105	104	0.113	99.959	0.000	4.67	Pass
8902	MN,RT,E,A3R,A3RL,A3T,A3TL,NX,FM2S	Elster	A3R (L), A3T (L)	2S	5,427	75	80	75	0.052	99.991	0.000	4.83	Pass
8903	MN,RT,E,W,AB1,AC,FM2	Elster	AB1	2S	291,489	200	209	202	0.276	100.030	0.000	4.39	Pass
8904	MN,RT,I,S,C1S,C1SRC,C1SRC,IN,FM2S	Itron	C1S (C, RC)	2S	491,041	200	209	200	0.193	100.041	0.000	4.39	Pass
8905	MN,RT,S,J4S,AC,IF,FM2S	Schlumberger	J4S	2S	20,572	100	105	103	0.29	99.900	0.000	4.67	Pass
8906	MN,RT,E,W,A1T+,NY,TU,FM2S	Elster	A1T+	2S	2,172	50	54	52	0.114	99.975	0.000	5.21	Pass
8907	MN,RT,E,A3R,AL,A3T,A3TL,NY,FM2S	Elster	A3R (L), A3T (L)	2S	570	35	40	35	0.055	100.005	0.000	5.58	Pass
8908	MN,RT,I,C1S,C1SRC,2J,FM2S	Itron	C1S	2S	4,333	75	80	75	0.124	100.035	0.000	4.83	Pass
8909	MN,RT,W,A1T+,A1TL+,TR,FM3S	ABB Power	A1T+, A1TL+	3S	135	10	12	11	0.068	100.047	0.000	7.26	Pass
8910	MN,RT,E,A3R,AL,A3T,A3TL,TR,FM3S	Elster	A3R (L), A3T (L)	3S	60	7	9	9	0.053	99.990	0.000	8.4	Pass
8911	MN,RT,I,C1S,C1SRC,2F,FM3S	Itron	C1S	3S	1,382	50	54	50	0.159	100.079	0.000	5.21	Pass
8912	MN,RT,E,W,A1T+,A1TL+,RJ,FM4S	Elster	A1T+, A1TL+	4S	3,005	50	54	50	0.122	99.985	0.000	5.21	Pass
8914	MN,RT,I,C1SRC,C1SRC,2G,FM4S	Itron	C1S	4S	1,909	50	54	51	0.126	100.093	0.000	5.21	Pass
8918	MN,RT,I,S,CNTS,CNTSRC,CNTSRC,2H,FM12S	Itron	CNTS, CNTSRC	12S	54,388	150	156	151	0.128	99.934	0.000	4.42	Pass
8920	MN,RT,D,MT14S,BW,CL,FM14S	Lanöys & Gyr	VMMW65E	14S	469	25	29	26	0.325	100.276	0.000	5.98	Pass
8923	MN,RT,E,A3R,A3RL,A3T,A3TL,TE,FM16S	Elster	A3R (L), A3T (L)	16S	8,920	75	80	75	0.045	99.983	0.000	4.83	Pass
8926	MN,RT,W,A1R,A1R-AL,X8,FM36S	ABB Power	A1R, A1R-AL	36S	11	3	5	3	0.026	100.023	0.000	7.59	Pass
8927	MN,RT,E,W,A1R+,A1RL+,X8,FM36S	Elster	A1R+, A1RL+	36S	4,535	75	80	75	0.061	99.971	0.000	4.83	Pass
8928	MN,RT,E,A3R,A3R-A,A3RALNCCQ,X8,FM36S	Elster	A3R+, A3R-A	36S	1,246	50	54	52	0.051	99.969	0.000	5.21	Pass
8935	MN,RT,E,A1R-A,A1T+,Y1,FM16S	Elster	A1R-A, A1T+	16S	174	15	18	15	0.114	100.005	0.000	6.55	Pass
8936	MN,RT,E,A3R,A3RL,A3T,V0,FM12S	Elster	A3R (L), A3T	12S	27	5	7	7	0.049	99.964	0.000	9.8	Pass

**Xcel Energy - State of North Dakota
Natural Gas Meter Testing
Summary of 2019 Results**

Meter Test Group	Meters	Acceptable¹		Slow		Fast	
	#	#	%	#	%	#	%
Residential (capacity < 400 cubic ft/hr)	741	707	95.4%	15	2.0%	19	2.6%
Small C&I (capacity 400 - 999 cubic ft/hr)	76	68	89.5%	5	6.6%	3	3.9%
Large C&I (capacity > 999 cubic ft/hr)	184	162	88.0%	1	0.5%	21	11.4%
Natural Gas Meter Totals	1,001	937	93.6%	21	2.1%	43	4.3%

Note: Meters are tested at two flow rates. The accuracy is the average of the two tests.

¹ Meters that test within acceptable tolerance have an average error within +/- 2 percent