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January 29, 2012

Darrell Nitschke, Executive Secretary
North Dakota Public Service Commission
Department 408
600 East Boulevard Avenue
Bismarck, ND 58505-0480



VIA ELECTRONIC
AND U.S. MAIL

Re: **XCEL ENERGY 4TH QUARTER UNDERGROUND CABLE OUTAGE REPORT**
CASE NOS. PU-10-657, PU-11-55

Dear Mr. Nitschke:

Consistent with the terms of the approved Settlement Agreement in the above-referenced electric rate proceeding, Northern States Power Company, doing business as Xcel Energy, submits its 4th quarter summary of underground residential distribution cable failures for 2012.

As shown on page 2, there were 18 underground cable failures in our North Dakota system during the fourth quarter. One of those qualified for replacement based on our cable replacement guidelines and engineering review, while two others were replaced as part of our focus on removal of 500 MCM cable. As is customary, I have attached our guidelines to the report for your reference (page 4).

I have also included as page 5 of this submittal a summary of the feeder level outages that occurred in 2012. As per our Settlement Agreement, we have been notifying the Commission Staff of these feeder outages as they have occurred throughout the year; I have summarized them again here for your convenience.

Please feel free to contact me with any questions or comments you have about the information provided. Thank you.

Sincerely,

DAVID SEDERQUIST
SR. REGULATORY CONSULTANT

cc: Jerry Lein

Xcel Energy - North Dakota Electric
2012 URD Cable Outage, Review, and Replacement Summary
(Compliance Report - Case Nos. PU-10-657, PU-11-55)

#	Date of Cable Failure	Outage Duration	Service Area	Customers Impacted	Date of Engineering Review ¹	Meets Criteria to Replace? ²	Footage To Replace	Scope of Replacement ³	Date of Work Order	Date Project Started	Date Project Completed	Note
1	Jan-09 7:40 PM	5:23	Grand Forks	120	Jan-13	No	-	-	-	-	-	
2	Jan-13 11:58 AM	2:44	Minot	13	Jan-20	No	-	-	-	-	-	
3	Jan-31 7:16 PM	4:30	Fargo	148	Feb-03	Yes	980	Segment	Feb-08	Aug-29	Sep-17	
4	Feb-20 9:55 AM	1:36	Fargo	2	Feb-24	No	-	-	-	-	-	
5	Feb-23 4:14 PM	2:51	Fargo	8	Mar-02	No	-	-	-	-	-	
6	Mar-12 5:06 PM	2:20	Fargo	82	Mar-17	No	-	-	-	-	-	
7	Mar-20 3:10 AM	4:49	Minot	91	Mar-26	No	-	-	-	-	-	
8	Mar-24 11:21 AM	1:10	Fargo	2	Apr-02	No	-	-	-	-	-	
9	Apr-12 10:40 PM	1:32	Grand Forks	1,438	Apr-16	No	-	-	May-31	Jul-16	Aug-31	a
10	Apr-21 12:58 AM	2:48	Fargo	145	Apr-30	Yes	176	Multiple	May-09	Jul-09	Jul-10	
11	Apr-21 2:26 AM	2:58	Fargo	54	Apr-30	No	-	-	-	-	-	
12	Apr-26 4:40 PM	2:40	Minot	48	Apr-30	No	-	-	-	-	-	
13	Apr-27 1:28 PM	2:37	Fargo	1	Apr-30	No	-	-	-	-	-	
14	May-03 5:27 AM	2:18	Fargo	83	May-07	No	-	-	-	-	-	
15	May-04 1:13 PM	1:32	Minot	24	May-07	No	-	-	-	-	-	
16	May-05 5:47 AM	13:22	Fargo	2	May-14	Yes	2,300	Radial	May-09	Aug-20	Aug-31	
17	May-17 7:53 AM	2:25	Fargo	166	May-21	No	-	-	-	-	-	
18	May-18 12:39 AM	2:21	Minot	8	May-21	No	-	-	-	-	-	
19	May-20 11:39 PM	2:09	Fargo	3,463	May-28	No	-	-	-	-	-	b
20	May-25 10:00 PM	1:15	Grand Forks	1,441	May-28	Yes	7,203	-	May-31	Jul-16	In Process	c
21	Jun-04 4:14 PM	1:16	Minot	54	Jun-11	No	-	-	-	-	-	
22	Jun-12 4:53 AM	1:45	Minot	1	Jun-18	No	-	-	-	-	-	
23	Jun-12 3:53 PM	3:14	Minot	38	Jun-18	No	-	-	-	-	-	
24	Jun-12 3:53 PM	2:58	Minot	39	Jun-18	No	-	-	-	-	-	
25	Jun-14 7:10 AM	1:46	Fargo	8	Jun-18	No	-	-	-	-	-	
26	Jun-19 2:52 AM	2:18	Fargo	186	Jun-25	No	-	-	-	-	-	
27	Jun-19 4:26 AM	1:52	Fargo	51	Jun-25	No	-	-	-	-	-	
28	Jun-20 1:44 PM	1:40	Minot	1	Jun-25	Yes	519	Radial	Jul-03	In Process	In Process	
29	Jun-21 7:47 AM	3:20	Fargo	268	Jun-25	No	-	-	-	-	-	
30	Jun-26 11:11 AM	0:19	Minot	85	Jul-02	Yes	178	Segment	Jul-03	In Process	In Process	
31	Jun-26 11:12 PM	5:48	Fargo	18	Jul-02	No	-	-	-	-	-	
32	Jun-27 9:44 PM	6:41	Grand Forks	106	Jul-02	No	-	-	-	-	-	
33	Jun-29 4:22 AM	0:48	Minot	36	Jul-02	No	-	-	-	-	-	
34	Jul-02 2:03 PM	2:14	Grand Forks	18	Jul-09	No	-	-	-	-	-	
35	Jul-03 11:46 AM	6:29	Grand Forks	3	Jul-09	No	-	-	-	-	-	
36	Jul-10 1:37 PM	3:38	Grand Forks	31	Jul-16	No	-	-	-	-	-	
37	Jul-10 4:15 PM	0:45	Grand Forks	18	Jul-16	No	-	-	-	-	-	
38	Jul-12 2:02 PM	1:11	Minot	46	Jul-16	No	-	-	-	-	-	
39	Jul-15 1:38 AM	4:52	Grand Forks	78	Jul-23	Yes	750	Multiple	Aug-06	In Process	Jan-00	
40	Jul-17 5:42 AM	6:11	Minot	2	Jul-23	Yes	345	Radial	N/A	Jul-17	Jul-17	
41	Jul-17 1:25 PM	3:35	Minot	2	Jul-23	Yes	345	Radial	N/A	Jul-17	Jul-17	

#	Date of Cable Failure	Outage Duration	Service Area	Customers Impacted	Date of Engineering Review ¹	Meets Criteria to Replace? ²	Footage To Replace	Scope of Replacement ³	Date of Work Order	Date Project Started	Date Project Completed	Note
42	Jul-18 8:59 AM	1:31	Minot	8	Jul-23	No	-	-	-	-	-	
43	Jul-19 6:04 PM	3:26	Fargo	131	Jul-23	No	-	-	-	-	-	
44	Jul-20 1:36 AM	10:47	Fargo	93	Jul-20	Yes	980	Segment	Feb-08	Aug-29	Sep-17	
45	Jul-21 1:48 AM	2:51	Fargo	23	Jul-30	Yes	1,060	Loop	Aug-03	Nov-13	-	
46	Jul-22 12:15 AM	8:54	Minot	10	Jul-30	Yes	706	Radial	Aug-13	In Process	-	
47	Jul-22 2:09 PM	1:41	Minot	61	Jul-30	Yes	1,231	Multiple	Jan-00	Jan-00	-	
48	Jul-25 1:12 AM	1:48	Grand Forks	102	Jul-30	Yes	1,900	Multiple	Aug-07	Nov-02	-	
49	Jul-26 9:31 AM	6:29	Fargo	4	Jul-30	No	-	-	-	-	-	
50	Jul-30 2:03 AM	8:57	Minot	18	Jul-31	No	-	-	-	-	-	
51	Jul-30 6:22 AM	1:38	Fargo	2	Jul-31	No	-	-	-	-	-	
52	Jul-31 7:37 AM	7:20	Grand Forks	53	Jul-31	No	-	-	-	-	-	
53	Aug-01 3:09 AM	7:51	Minot	35	Aug-06	No	-	-	-	-	-	
54	Aug-03 1:17 PM	0:56	Grand Forks	320	Aug-06	No	-	-	-	-	-	
55	Aug-06 6:45 AM	2:30	Grand Forks	239	Aug-13	No	-	-	-	-	-	
56	Aug-07 7:26 AM	3:10	Grand Forks	151	Aug-13	Yes	750	Multiple	Aug-06	In Process	-	
57	Aug-07 7:12 PM	6:18	Fargo	10	Aug-13	No	-	-	-	-	-	
58	Aug-09 11:39 PM	7:37	Minot	25	Aug-13	No	-	-	-	-	-	
59	Aug-10 1:44 PM	1:09	Fargo	18	Aug-13	No	-	-	-	-	-	
60	Aug-12 5:40 PM	1:56	Grand Forks	63	Aug-20	No	-	-	-	-	-	
61	Aug-13 9:27 AM	1:18	Minot	10	Aug-20	No	-	-	-	-	-	
62	Aug-13 5:13 PM	1:37	Minot	8	Aug-20	No	-	-	-	-	-	
63	Aug-16 9:23 AM	6:27	Fargo	125	Aug-20	No	-	-	-	-	-	
64	Aug-18 1:07 AM	3:13	Grand Forks	30	Aug-20	No	-	-	-	-	-	
65	Aug-21 9:03 PM	7:57	Minot	5	Aug-27	No	-	-	-	-	-	
66	Aug-24 6:58 AM	1:04	Minot	23	Aug-27	No	-	-	-	-	-	
67	Aug-24 8:07 AM	0:22	Fargo	2,298	Aug-27	No	-	-	-	-	-	
68	Aug-25 7:49 AM	1:46	Fargo	43	Aug-27	Yes	840	Multiple	Jun-13	Sep-20	Sep-25	
69	Aug-26 9:15 AM	1:33	Minot	2	Sep-03	No	-	-	-	-	-	
70	Aug-28 6:01 AM	1:57	Minot	5	Sep-03	No	-	-	-	-	-	
71	Aug-28 7:44 AM	1:49	Grand Forks	20	Sep-03	No	-	-	-	-	-	
72	Aug-31 12:26 AM	8:49	Grand Forks	53	Sep-03	No	-	-	-	-	-	
73	Sep-02 7:13 PM	2:57	Minot	2	Sep-03	Yes	1,325	Multiple	Sep-07	Nov-09	-	
74	Sep-03 10:30 AM	3:07	Fargo	12	Sep-10	No	-	-	-	-	-	
75	Sep-07 2:53 AM	3:49	Grand Forks	77	Sep-10	No	-	-	-	-	-	
76	Sep-09 2:55 PM	1:05	Fargo	22	Sep-10	No	-	-	-	-	-	
77	Sep-10 1:34 PM	4:31	Fargo	28	Sep-17	Yes	840	Multiple	Jun-13	Sep-20	Sep-25	
78	Sep-13 6:46 PM	5:29	Fargo	36	Sep-17	No	-	-	-	-	-	
79	Sep-14 12:00 PM	1:53	Fargo	105	Sep-17	No	-	-	-	-	-	
80	Sep-14 12:29 PM	1:41	Fargo	67	Sep-17	No	-	-	-	-	-	
81	Sep-16 4:41 AM	2:09	Grand Forks	105	Sep-17	No	-	-	-	-	-	
82	Sep-17 2:50 AM	3:20	Grand Forks	95	Sep-24	No	-	-	-	-	-	
83	Sep-17 7:13 PM	4:32	Fargo	24	Sep-24	No	-	-	-	-	-	
84	Sep-17 11:45 PM	8:13	Fargo	9	Sep-24	No	-	-	-	-	-	
85	Sep-20 5:40 AM	6:42	Fargo	2	Sep-24	No	-	-	-	-	-	
86	Sep-22 3:35 AM	1:10	Minot	29	Sep-24	No	-	-	-	-	-	
87	Sep-23 3:25 PM	1:25	Fargo	37	Sep-24	No	-	-	-	-	-	
88	Sep-25 7:35 PM	3:55	Minot	7	Oct-01	No	-	-	-	-	-	
89	Sep-26 7:58 PM	3:17	Minot	3	Oct-01	No	-	-	-	-	-	
90	Sep-27 7:03 AM	3:02	Fargo	22	Oct-01	No	-	-	-	-	-	

#	Date of Cable Failure	Outage Duration	Service Area	Customers Impacted	Date of Engineering Review ¹	Meets Criteria to Replace? ²	Footage To Replace	Scope of Replacement ³	Date of Work Order	Date Project Started	Date Project Completed	Note
91	Sep-27 6:48 PM	10:29	Grand Forks	86	Oct-01	No	-	-	-	-	-	
92	Sep-30 10:13 AM	2:25	Grand Forks	72	Oct-01	No	-	-	-	-	-	
93	Oct-02 8:15 PM	4:39	Grand Forks	22	Oct-07	No	-	-	-	-	-	
94	Oct-03 1:08 AM	3:48	Fargo	252	Oct-08	No	-	-	-	-	-	
95	Oct-03 8:17 AM	2:16	Minot	20	Oct-08	No	-	-	-	-	-	
96	Oct-07 1:52 PM	1:35	Minot	50	Oct-08	No	-	-	-	-	-	
97	Oct-11 8:22 AM	3:56	Fargo	1	Oct-15	No	-	-	-	-	-	
98	Oct-11 7:40 PM	1:37	Minot	6	Oct-15	Yes	1,325	Multiple	Sep-07	Nov-09	Nov-20	
99	Oct-18 11:54 AM	3:11	Fargo	60	Oct-22	No	-	-	-	-	-	
100	Oct-22 5:15 PM	10:32	Grand Forks	18	Oct-29	No	-	-	-	-	-	
101	Oct-30 2:53 AM	3:43	Fargo	19	Nov-05	No	-	-	-	-	-	
102	Oct-30 2:53 AM	8:47	Fargo	37	Nov-05	No	-	-	-	-	-	
103	Oct-30 10:17 PM	2:06	Fargo	145	Nov-05	No	-	-	-	-	-	
104	Oct-31 7:11 AM	1:43	Minot	15	Nov-05	No	-	-	-	-	-	
105	Nov-20 5:46 PM	2:17	Fargo	167	Nov-26	Yes	-	-	-	-	-	
106	Nov-24 5:14 AM	3:01	Fargo	147	Nov-24	No	-	-	-	-	-	d
107	Nov-24 6:29 AM	3:26	Fargo	59	Nov-26	No	-	-	-	-	-	e
108	Dec-01 1:54 AM	3:23	Minot	26	Dec-03	No	-	-	-	-	-	
109	Dec-11 8:53 AM	0:50	Grand Forks	1	Dec-17	No	-	-	-	-	-	
110	Dec-22 10:17 AM	1:25	Fargo	148	Dec-31	No	-	-	-	-	-	

¹ The Company's Reliability Management System ("REMS") compiles and processes outage-related information and will flag an engineering review if one of the protective devices (i.e., fuse, breaker, recloser) designed to isolate the fault and protect the system operates *twice within a two year period*. The review will determine if a failed cable qualifies for replacement. A designation of "na" in this column indicates that REMS did not flag such a review for this event.

² See URD Cable Replacement Guidelines summary, attached. Cable may also qualify for replacement under the current 500 MCM replacement program funded under Case. No. PU-10-657.

³ Based on our replacement guidelines, primary cable replacements can involve 1) a single cable segment, 2) multiple cable segments, 3) all common vintaged cable on a radial, or 4) all common vintaged cable on a half-loop.

Notes

- a. Feeder cable failure did not qualify for replacement under Cable Replacement Guidelines, but does under the current 500 MCM cable replacement program.
- b. Feeder cable failure did not qualify for replacement under Cable Replacement Guidelines, but does under the current 500 MCM program (to be done in 2013).
- c. Feeder cable failure did not qualify for replacement under Cable Replacement Guidelines, but does under the current 500 MCM cable replacement program.
- d. Cable qualifies for replacement under Guidelines; however, area will be completely reconfigured in 2013 so replacement of this segment has been deferred.
- e. Although this cable did not qualify for replacement, a failure in 2013 will trigger replacement of failed segments of cable.C115

Key:

	1st Qtr
	2nd Qtr
	3rd Qtr
	4th Qtr

Xcel Energy

Underground Residential Distribution Cable Replacement Guidelines

Effective Jan. 1, 2009

Radial Feeds:

- After two cable failures occur anywhere on a given radial within a two year period, any cable segments (on the radial) that have failed within the last two years are replaceable.
- If two thirds (2/3) of the cable segments on the radial qualify for replacement, all segments (on the radial) that are of the *same vintage*, regardless of their failure history are replaceable.

Loop Feeds:

- After two failures occur on any single cable segment within a two year period, the cable segment is replaceable.
- After two failures occur anywhere on the same half of the loop within a two year period, any cable segments that have failed (on the half-loop) within the last two years are replaceable.
- If two thirds (2/3) of the cable segments on the same half of the loop qualify for replacement, all segments (on the half-loop) that are of the *same vintage* are replaceable.

Any Feeder Configuration:

- If a cable replacement project can be shown to reduce the customer minutes out ("CMO") at a cost of \$0.13 or less per reduced CMO, the cable may be replaced.
- If a repaired cable segment fails again within one week after being placed back into service, the cable is replaceable.

Note: Final decisions regarding the replacement (and/or related scheduling) of failed underground cable is subject to the consideration of circumstances not contemplated in the guidelines shown here.

Xcel Energy - North Dakota Electric
2012 Feeder Level Outages Summary
 4th Quarter Summary

#	Date of Outage	Outage Duration	Service Area	Customers Impacted	Cause
1	Jan-31 9:00 AM	1:29	Berthold	262	Burned jumper wire on Verendrye Elec Co-op side of feeder
2	Mar-08 9:25 AM	1:11	Mayville	628	Loose connection created high heat, burned jumper
3	Apr-12 10:40 AM	1:32	G Forks	1,445	Underground cable fault
4	Apr-14 7:37 AM	2:32	G Forks	1,926	Broken, downed wire
5	Apr-15 2:27 PM	2:39	Minot	1,384	Pole fire
6	May-16 6:31 PM	1:57	G Forks	364	Switching equipment failure
7	May-20 11:39 PM	2:09	Fargo	3,513	Underground cable fault
8	May-22 10:45 PM	1:23	Thompson	472	Tree branch on line
9	May-25 10:00 PM	1:15	G Forks	1,448	Underground cable fault
10	Jun-13 3:00 AM	2:51	Mayville	556	Planned; install mobile sub
11	Jun-13 5:18 AM	0:33	Mayville	230	Planned; install mobile sub
12	Jun-13 5:18 AM	0:33	Mayville	449	Planned; install mobile sub
13	Jun-13 5:18 AM	0:33	Mayville	192	Planned; install mobile sub
14	Jul-20 6:06 AM	0:54	Minot	1,187	Bird
15	Jul-25 11:36 PM	1:42	Fargo	1,984	Tree branch on line
16	Aug-03 1:17 PM	0:56	G Forks	375	Underground cable fault
17	Aug-20 8:34 AM	0:18	G Forks	832	Switching error
18	Aug-24 8:07 AM	0:22	Fargo	2,310	Underground cable fault; restore delayed by damaged brkr panel
19-25	Aug-24 11:33 PM	0:54	G Forks	8,085	Lightning strike
26	Sep-02 1:33 PM	0:21	G Forks	1,570	Unclear-possibly a lightning strike
27	Sep-02 4:49 PM	0:49	Fargo	1,664	Switching equipment failure
28	Oct-06 12:00 PM	14:27	Mayville	629	Failed relay
29	Nov-10 7:14 PM	2:17	Fargo	1,093	Unclear-possibly ice and wind related
30-33	Nov-17 9:00 AM	4:03	Mayville	450	Planned; 4kV to 12kV conversion
34-35	Nov-17 9:00 AM	5:23	Mayville	1,122	Planned; 4kV to 12kV conversion