



2302 Great N. Drive
Fargo, North Dakota 58402
(701) 241-8632
dave.sederquist@xcelenergy.com

December 31, 2013

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 UNDERGROUND CABLE OUTAGE REPORT**
CASE NOS. PU-10-657, PU-11-55

Dear Mr. Nitschke:

Pursuant to the terms of the approved Settlement Agreement in the above referenced case, I hereby submit our third quarter update of underground residential distribution (“URD”) cable failures for 2013. This report was delayed due to a review and correction of certain source data.

As you will note on page 1, there were 44 URD cable failures in our North Dakota system during the third quarter. This compares to 59 during the third quarter in 2012. Four of these cables qualified for replacement under either our cable replacement guidelines or our 500 MCM cable replacement program. I have attached the guidelines to the report for your reference, on page 4.

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

191 PU-11-55 Filed 01/06/2014 Pages: 4
Compliance filing - underground cable outage report - third quarter 2013
Northern States Power Company
David Sederquist

215 PU-10-657 Filed 01/06/2014 Pages: 4
Compliance filing - underground cable outage report - third quarter 2013
Northern States Power Company
David Sederquist

Xcel Energy - North Dakota Electric
2013 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-01 9:59 PM	4:01	Fargo	79	Jan-07	Yes	1,360	Multiple	6-Feb-2013	21-May-2013	24-Oct-2013	
2	Jan-06 8:07 PM	11:45	Fargo	287	Jan-14	Yes	1,312	Multiple	2/15/2013	1-Jul-2013	12-Nov-2013	
3	Jan-24 4:00 AM	3:12	Grand Forks	112	na	No						
4	Jan-26 8:00 PM	3:06	Fargo	42	Jan-28	No						
5	Jan-31 1:26 PM	1:31	Fargo	102	Feb-04	Yes	4,200	Multiple	20-Feb-2013	19-Jun-2013	19-Aug-2013	a
6	Feb-08 8:17 PM	2:13	Fargo	81	Feb-11	No						
7	Feb-16 10:13 AM	2:25	Grand Forks	1,139	Feb-18	No						b
8	Feb-19 12:40 PM	3:05	Grand Forks	866	na	No						
9	Feb-24 4:51 AM	2:01	Fargo	167	na	No						
10	Mar-06 5:36 AM	2:54	Fargo	39	na	No						
11	Mar-06 2:29 PM	0:34	Fargo	3,476	Mar-11	Yes	849	Segment	11-Mar-2013	12-Mar-2013	22-Apr-2013	c
12	Mar-29 5:03 PM	1:06	Grand Forks	1,359	na	No						
13	Apr-04 9:00 AM	3:03	Fargo	107	na	No						
14	Apr-04 3:40 PM	2:04	Minot	2,361	Apr-08	Yes	2,111	Segment	7-May-2013	1-Jul-2013	16-Sep-2013	d
15	Apr-16 6:50 AM	2:00	Fargo	7	na	No						
16	Apr-18 4:23 AM	2:47	Fargo	145	Apr-22	No						
17	Apr-19 5:48 PM	1:32	Fargo	85	na	No						
18	Apr-21 6:14 AM	0:06	Minot	7	Apr-29	No						
19	Apr-21 11:58 AM	2:17	Fargo	161	May-27	No						
20	Apr-27 12:38 PM	4:22	Fargo	2	na	No						
21	May-01 8:13 AM	3:37	Minot	136	Jun-03	Yes	1,992	Multiple	3-Jun-2013	17-Jun-2013	5-Jul-2013	
22	May-02 1:56 AM	4:24	Fargo	147	May-27	No						
23	May-02 11:17 PM	6:29	Grand Forks	3	na	No						
24	May-04 5:33 AM	2:12	Fargo	113	na	No						
25	May-10 5:56 AM	2:06	Fargo	37	May-13	No						
26	May-30 6:49 AM	1:56	Fargo	1	Jun-10	Yes	194	Multiple	14-Jun-2013	20-Sep-2013	23-Sep-2013	
27	May-31 2:51 PM	1:19	Fargo	1	Jun-10	Yes	194	Multiple	14-Jun-2013	20-Sep-2013	23-Sep-2013	
28	Jun-01 10:54 PM	2:39	Minot	137	Jun-03	Yes	1,992	Multiple	3-Jun-2013	17-Jun-2013	5-Jul-2013	
29	Jun-05 6:35 PM	0:45	Fargo	151	Jun-10	Yes	522	Segment	14-Jun-2013	11-Oct-2013	18-Oct-2013	
30	Jun-06 1:28 AM	2:39	Grand Forks	165	na	No						
31	Jun-14 1:19 AM	5:17	Fargo	77	Jun-17	Yes	95	Segment	18-Jun-2013	15-Oct-2013	23-Oct-2013	
32	Jun-19 10:17 PM	10:13	Fargo	1	na	No						
33	Jun-21 8:14 PM	1:06	Minot	52	Jun-24	No						
34	Jul-04 4:58 AM	2:26	Minot	34	na	No						
35	Jul-08 5:40 AM	3:42	Minot	79	Jul-15	No						
36	Jul-09 9:49 PM	1:54	Minot	12	na	No						
37	Jul-14 1:18 AM	3:36	Grand Forks	64	Jul-15	No						
38	Jul-14 8:19 AM	1:56	Fargo	64	na	No						
39	Jul-14 8:30 AM	1:46	Fargo	6	na	No						
40	Jul-15 5:23 AM	4:08	Fargo	28	Jul-22	Yes	1,342	Multiple	31-Jul-2013	8-Oct-2013	21-Oct-2013	
41	Jul-18 4:30 AM	2:29	Grand Forks	9	na	No						
42	Jul-18 6:09 AM	14:06	Grand Forks	59	Jul-22	No						
43	Jul-21 6:45 AM	7:49	Minot	7	na	No						

44	Jul-25 7:08 AM	1:25	Fargo	147	na	No						
45	Jul-26 8:45 AM	2:32	Grand Forks	53	na	No						
46	Aug-01 2:08 PM	3:02	Fargo	1	na	No						
47	Aug-04 3:53 AM	2:47	Fargo	28	Aug-05	No						
48	Aug-07 10:00 AM	2:24	Fargo	65	Aug-12	No						
49	Aug-08 7:52 AM	3:54	Minot	1	na	No						
50	Aug-14 10:43 AM	1:19	Fargo	85	Aug-19	No						
51	Aug-15 8:03 PM	2:09	Fargo	1	na	No						
52	Aug-18 3:29 PM	3:21	Grand Forks	36	na	No						
53	Aug-19 4:50 PM	2:03	Grand Forks	124	na	No						
54	Aug-20 7:08 AM	2:15	Fargo	50	Aug-26	No						
55	Aug-21 2:03 AM	3:36	Grand Forks	209	na	No						
56	Aug-21 10:06 PM	2:58	Minot	14	na	No						
57	Aug-24 10:48 AM	5:46	Fargo	43	Aug-26	No						
58	Aug-26 7:40 AM	2:27	Grand Forks	63	na	No						
59	Aug-27 9:21 AM	2:32	Fargo	46	na	No						
60	Aug-27 9:22 AM	2:11	Fargo	11	na	No						
61	Aug-28 10:34 PM	3:06	Fargo	137	na	No						
62	Sep-02 5:23 PM	5:46	Minot	3	na	No						
63	Sep-04 1:29 PM	1:33	Fargo	30	na	No						
64	Sep-07 4:47 AM	2:57	Minot	39	Sep-09	No						
65	Sep-08 5:30 PM	2:17	Fargo	65	Sep-09	No						
66	Sep-09 7:37 AM	3:59	Fargo	49	na	No						
67	Sep-11 8:24 AM	1:41	Fargo	74	na	No						
68	Sep-12 1:30 AM	3:20	Fargo	52	Sep-16	Yes	1,000	Multiple	13-Sep-2013	27-Nov-2013	10-Dec-2013	
69	Sep-12 5:04 PM	2:14	Grand Forks	55	na	No						
70	Sep-13 7:19 AM	1:45	Fargo	4,598	Sep-16	No						
71	Sep-15 10:01 PM	1:00	Minot	4	Sep-23	No						
72	Sep-16 11:52 AM	0:49	Fargo	146	Sep-23	No						
73	Sep-18 4:24 PM	1:50	Fargo	6,999	Sep-23	Yes	10,500	Segment	24-Sep-2013	15-Oct-2013	In Process	e
74	Sep-19 10:50 AM	2:30	Minot	5	na	No						
75	Sep-25 7:40 PM	3:05	Fargo	84	Sep-30	No						
76	Sep-27 8:34 AM	5:26	Grand Forks	142	na	No						
77	Sep-28 9:34 AM	1:24	Grand Forks	731	Sep-30	Yes	1,056	Segment	30-Sep-2013	26-Nov-2013	In Process	f

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. Replacement was part of a comprehensive redesign of the area underground cable.
- b. Headend cable was replaced during summer under the 500 MCM project. This outage was caused by a splice failure.
- c. Cable was replaced under the 500 MCM project, not under REMS criteria.
- d. Cable was replaced under the 500 MCM project, not under REMS criteria.
- e. Replacement was part of a larger project with the city of Fargo to remove overhead line.
- f. Cable is being replaced under the 500 MCM project, not under REMS criteria.

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.