



May 7, 2013

Dr. Burl W. Haar
Executive Secretary
Minnesota Department of Commerce
121 7th Place East, Suite 350
Saint Paul, Minnesota 55101-2147

Subject: Minnesota Electric Distribution Reliability Report – Chapter 7626
Docket No. E016/M-13-

Dear Dr. Haar:

As required by Minnesota Statutes 2002,216B.81, Northwestern Wisconsin Electric Company (NWEC) files the following report for 2013.

7826.0400 ANNUAL SAFETY REPORT

- A. NWEC did not file any reports with US OSHA or Occupational Safety and Health Division of Minnesota DLI during 2012.
- B. There were no injuries in Minnesota requiring medical attention or property damage resulting in compensation as a result of downed wires or electrical system failures.

7826.500 RELIABILITY REPORTING FOR 2012

Subpart 1.

- A. SAIDI = 274.40
- B. SAIFI = 1.24
- C. CAIDI = 221.29
- D. There were no major storm in NWEC's Service Territory on July 1, 2011 that affected Minnesota.
- E. NWEC serves 100 customers in Minnesota.

One 7.2KV line runs from Clam River Dam, Wisconsin through Governor Knowles State Forest (no roads, only trails) for approximately one (1) mile, then crosses the St. Croix River and continues 4 ½ miles into Saint Croix State Park (Minnesota) – few roads. This line services 20 customers in the park. It takes approximately an hour to drive, in the summer time, around on roads from source to end of line when patrolling. This adds unavoidable time to duration time of each outage. All overhead lines in Union Township were cleared to 20 foot clearance in 2007. The July 1, 2011 knocked the rest of them down. All the lines in Crosby (St Croix State Park) are underground.

All the 9KV lightning Arresters were inspected on March 8, 2010. They all were of the MCOV Type (latest design). The OCR at the Clam Dam Substation was replaced with @ 35A Amp Oil Circuit Recloser on February 15, 2012.

The second 7.2KV line comes out to Tower Road Substation (2 ½ miles east of Danbury, WI.), and goes along country roads for 12 miles to Wisconsin-Minnesota border. It then enters Minnesota on Highway 25 and Township Roads, serving 80 customers in Arna Township. NWECC reviewed the sizing of the breaker/fusing and lightning protection appears to be adequately sized and correctly placed in the line. The overhead lines in Arna, Blaine and Swiss Townships were cleared to 20 foot clearance in 2007. Most of the trees were blown down on July 1, 2011. Almost all of the line was rebuilt with new poles.

NWECC is committed to providing the best possible service to our customers, while still maintaining reasonable rates. A recent three (3) year study indicated that downed trees and limbs on our power lines cause the majority of our outages. Downed trees on power lines provide a serious forest fire danger, are very costly to repair and usually cause lengthy outage for our customers. In order to insure the safety of our employees and to provide uninterrupted service to our customers, NWECC needs to keep our power lines pruned and cut to proper clearance.

Tree limbs falling on power lines cause most storm-related outages. NWECC's maintenance program includes pruning and removing trees under and near power lines on a six-to-seven year pruning cycle in urban areas and an eight-to-ten year cycle in rural areas.

Each tree species grow differently. We must prune more from fast-growing trees to obtain proper clearance than we do from slow-growing trees. We might have to remove trees that are weak, brittle, damaged or diseased to avoid the risk of their falling on power lines. Fast growing trees, such as silver maple and willow, often are troublesome and should be removed.

The amount of clearance depends on the power (voltage) in the lines and tree re-growth after cutting and pruning. The recommended minimum clearance for Distribution primary lines (measured at top of the pole) that serve many customers, is 10 feet on all sides in urban areas and 20 feet in rural areas. We also remove tree branches that overhang the lines. Recommended clearance for wires serving individual homes (secondary) is three (3) feet.

Studies and our experience have shown what minimum clearance we need to maintain a reliable service on a six-to-seven year trimming cycle. Such clearance should minimize outages and prevent trees from burning when they touch primary lines. Tree cutting and pruning is expensive for NWECC and its customers. The Company prefers to remove trees that require frequent pruning and pose particular hazards to power lines. Fast-growing, tall trees, directly under primary wires are an example. They quickly grow back into the wires and can cause repeated outages. Poplars, Willows, Box Elders, Jack Pine and Silver Maples are some fast-growing trees that need frequent pruning near power lines. These trees should be removed rather than pruned.

A NWECC employee will make a reasonable effort to contact, in person or by certified mail, each property owner, a minimum of 24 hours before starting work.

Generally, we recommend that nothing be planted directly beneath the lines. Certain trees that conflict with overhead lines, as they grow, are not only dangerous, but require regular pruning or even removal. Avoid problems by planting low growing tree species, at least 35 feet from overhead Utility lines. NWECC can recommend appropriate tree species for various locations. In general, plant small trees 30 feet apart, medium trees 40 feet apart, and large trees 50 feet apart.

All pole lines are inspected yearly. Five (5) – seven (7) % of all poles are tested for strength each year. Poles that fail test are replaced in the year they are identified.

A downed power line is extremely dangerous. If you encounter a downed wire, stay back and make sure that children, other adults and pets stay away. Call you local NWECC office immediately. Remember that electric, gas, telephone, cable and water lines might be underground, so before you dig, call Gopher State ONE CALL (1.800.252.1166) for the exact location of the electric service buried underground

F. There were no major Bulk Power Supply Interruption that affected NWECC's Minnesota and Wisconsin customers in 2012.

G. No Reports filed on 7826.0700

H. NWECC has two (2) single phase 7.2KV Distribution Lines going from Wisconsin to Minnesota, one serves St. Croix State Park (20 customers) and the other serves the community of Markville and surrounding area (80 customers).

1. The Arna Township-Markville Circuit in 2012:

SAIDI = 18.00

SAIFI = 0.050

CAIDI = 360

2. Saint Croix State Park Circuit in 2012:

SAIDI = 1300

SAIFI = 6

CAIDI = 216.67

I. There were no instances in which nominal electric service voltages on NWECC's side of meter did not meet ANSI Standards

J. Danbury, Wisconsin	1 Foreman and 2 Linemen
Frederic, Wisconsin	2 Foreman and 5 Linemen
Grantsburg, Wisconsin	3 Foreman and 6 Linemen

7826.0600 RELIABILITY STANDARDS

Subpart 1. PROPOSED RELIABILITY STANDARDS FOR 2012
MPUC ordered in Docket E-016/M-12-377

SAIDI = 152.70

SAIFI = 1.30

CAIDI = 117.46

7826.1400 METER READING PERFORMANCE

- A. 80 Meters – 80% by Utility
- B. 20 Meters – 20% self-read
- C. None
- D. One meter reader reads all of Arna

7826.1500 INVOLUNTARY DISCONNECTIONS

- A. Thirty-four (34) customers received disconnection notices
- B. No customers sought cold weather rule protection
- C. No customer was disconnected involuntarily
- D. No disconnected customers entered into a payment plan

7826.1600 SERVICE EXTENSION REQUEST RESPONSE TIME

- A. Three (3) customers requested service to a location not previously served.

Requested Date:		Hook Up Date:
04/03/12	Douglas Roatch	4/18/12
09/05/12	Reggie Washington	9/24/12
09/18/12	John Ludwig	9/24-12
- B. No (0) customers requested service at an existing location.

7826.1700 CALL CENTER RESPONSE TIME

NWEC does not have a call center. NWEC uses a call answering service for after hours calls of outage trouble, billing questions, etc. Customers are always able to talk to a live person. NWEC received a variance to setting up a call center in Docket #E-016M-04-510. The call answering service has been working very well with no complaints from any customer.

7826.1800 EMERGENCY MEDICAL ACCOUNT STATUS

NWEC has one (1) Minnesota customers on Emergency Medical Account Status.

7876.1900 CUSTOMER DEPOSITS

No customer was required to make deposit as a condition of receiving service.

7826.2000 CUSTOMER COMPLAINTS

- A. No Complaints received in 2012
- B. N/A
- C. N/A
- D. N/A

Calculation check:

MINNESOTA OUTAGES FOR 12 MONTHS ENDING 12/31/12

OUTAGE	DATE	# CUSTOMERS	TIME OFF	TIME RESTORED	OUTAGE TIME	OUTAGE MIN	CUSTOMER MIN	CAUSE	
1	2/7/2012	20	9:50 PM	11:10 PM	1:20	80	1600	UNKNOWN	
2	3/27/2012	20	6:15 AM	7:15 AM	1:00	60	1200	UNKNOWN	
3	5/27/2012	20	8:00 PM	7:00 AM	11:00	660	13200	UNKNOWN	
4	6/12/2012	4	1:30 AM	7:30 AM	6:00	360	1440	UNKNOWN	
5	7/25/2012	20	7:45 AM	10:45 AM	3:00	180	3600	UNKNOWN	
6	10/6/2012	20	6:50 PM	8:10 PM	1:20	80	1600	UNKNOWN	
7	11/16/2012	20	8:30 PM	12:30 AM	4:00	240	4800	UNKNOWN	
					Total Minnesota	28:40	1660	27440	TOTALS

124

Average # of Customers in MINNESOTA

100

CAIDI

221.29 Total Customer Minutes / Total Customers Affected

SAIDI

274.40 Total Customer Minutes * / Total Minnesota Customers

SAIFI

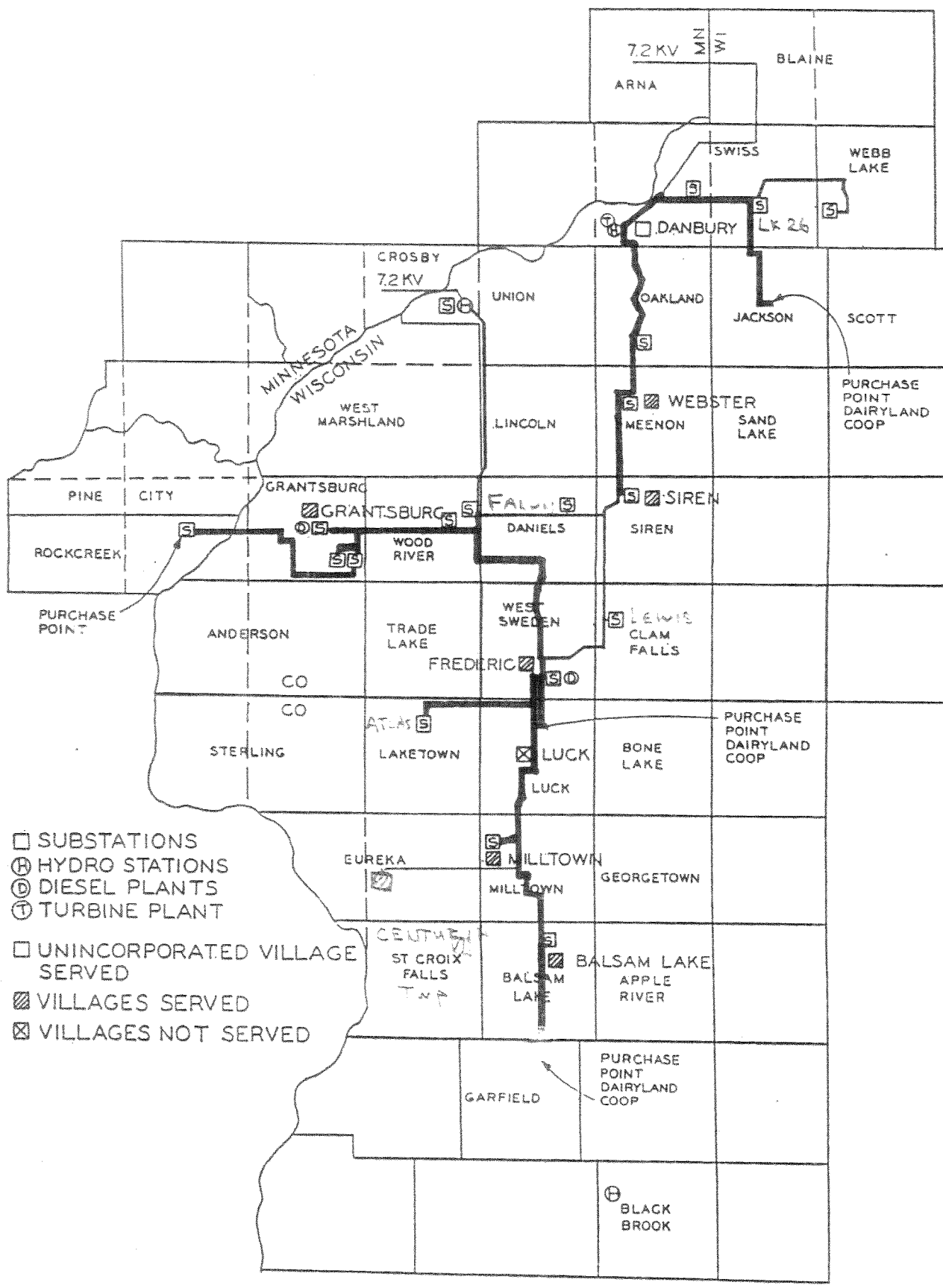
1.24 Total Customer Affected / Total Minnesota Customers

Calculation check:

CAIDI X SAIFI = SAIDI

274.40

TRANSMISSION LINES NORTHWESTERN WISCONSIN ELECTRIC CO



- SUBSTATIONS
- ⊕ HYDRO STATIONS
- ⊙ DIESEL PLANTS
- ⊙ TURBINE PLANT
- UNINCORPORATED VILLAGE SERVED
- ▨ VILLAGES SERVED
- ⊗ VILLAGES NOT SERVED

— 7.2 KV
 — 34.5 KV 38 mi
 — 69 KV 104 mi
 142 mi