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April 23, 2026

Ms. Lisa Felice
Executive Secretary
Michigan Public Service Commission
7109 W. Saginaw Highway
P.O. Box 30221
Lansing, MI 48909

**RE: NSPW Service Quality, Reliability Standards, and Power Quality Annual Reports – Year 2025 - REVISED** **Case No. U-12270**

Dear Ms. Felice:

The attached report represents Northern States Power Company's, a Wisconsin corporation ("NSPW"), Service Quality and Reliability Standards annual report for Year 2025, pursuant to Service Quality and Reliability Standards for Electric Distribution Systems, R 460.731 and 460.732. This report is being submitted on the approved standard template pursuant to the December 21, 2023 order in this case.

This report, originally filed on March 10, 2026 (U-12270-0616), has been revised to correct the information in the System-wide SAIDI, SAIFI, and CAIDI table which was previously reported in error.

Please contact me at (715) 737-1113, or at michelle.schlosser@xcelenergy, if you have any questions.

Respectfully submitted,

Michelle D Schlosser

Michelle D. Schlosser
NSPW Regulatory Policy Specialist

Attachment

**MPSC Service Quality and Reliability Standards for Electric Utilities**
**R460.731 Annual Report**

| | |
|---|---|
| **Utility or Cooperative:** | Northern States Power Co. (Xcel Energy) |
| **Year:** | 2025 |

**SUMMARY TABLE R460.732(s)**

| | Meter Reading Factor R460.732 (a) | New Service Installation Factor R460.732(b) | Wire Down Relief Factor R460.732 (c) | | Outage Restoration | | | | CEMI4 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | All Conditions R460.732 (d) | Normal Conditions R460.732 (e) | Gray-Sky Conditions R460.732 (f) | Catastrophic Conditions R460.732 (g) | Sustained Interruptions R460.732 (h)(i) | |
| | *Meter Reading Factor (Percentage)* | *New Services Installed in 15 Business Days or Less (Percentage)* | *The percentage of the first responder guarded downed wires that are relieved by an electric utility representative within 120 minutes after notification in MSAs.* | *The percentage of the first responder guarded downed wires that are relieved by an electric utility representative within 180 minutes after notification in non-MSAs.* | *Percentage of Customers Restored in 36 Hours or Less* | *Percentage of Customers Restored in 8 Hours or Less* | *Percentage of Customers Restored in 24 Hours or Less* | *Percentage of Customers Restored in 48 Hours or Less* | *Percentage of Customers Served Experiencing 4 or More Sustained Interruptions* | *Number of Customers Experiencing 4 or More Sustained Interruptions* |
| **Utility or cooperative performance during year** | 97.75% | 91.11% | N/A | 70.00% | 100% | 96.40% | 98.80% | 100% | 9% | 709 |
| **MPSC Annual Performance Standard** | 95% or more | 90% or more completed within 15 business days | 90% or more within 120 minutes in MSAs | 90% or more within 180 minutes in non-MSAs | 90% or more customers restored in 36 hours or less | 90% or more customers restored in 8 hours or less | 90% or more customers restored in 24 hours or less | 90% or more customers restored in 48 hours or less | 6% or less before 2030; 5% or less in 2030 or later | |
| **Did utility or cooperative comply with performance standard (Yes/No)** | Yes | Yes | N/A | No | Yes | Yes | Yes | Yes | No | |

| | |
|---|---|
| **A detailed explanation of the steps the electric utility or cooperative is taking to bring its performance to an acceptable level. If more than 6% of customers experienced 4 or more sustained interruptions within the year and that year was 2029 or a prior year, or if more than 5% of customers experienced 4 or more sustained interruptions within the year and that year was 2030 or a future year, a description of all catastrophic conditions experienced during the year is also required. (Can be put on a separate page.) R 460.732 (h)(ii) and R 460.732 (h)(iii).** | For wire down relief, there were 27 occurrences of police or fire guarding wires. Of the 27, there were 8 occurrences (194, 442, 195, 361, 201, 300, 390, and 2734 min) where NSPW did not resolve the issue within 180 minutes. Of those 8, 3 occurred during a grey sky weather event on June 21, 2025 and 3 occurred during a catastrophic weather event on November 26, 2025. It is unclear at what time during that resolution process that the police or fire were relieved of guard duties. The Company has discussed ways to have more visability into what time police and fire were relieved of guard duties in 2026.<br><br>In 2025, there were 27 grey sky events and 2 catastrophic events. Weather had a significant influence on when these conditions occurred. A description of the catatrophic events is below. 79% of customers who experienced 4+ interruptions experienced those interruptions on "grey sky" or catastrophic condition outage days. 85% of those customers experienced at least 1 "grey sky" or catastrophic event day over the course of the year. 87 customers (~12% of all CEMI4 customers in 2025) reside within the worst-performing feeder (PSI020). This feeder has been identified as a top priority circuit on the Performance Feeder Improvement Plan (FPIP) list that Engineering Operations team utilizes to prioritize system-level device resilience improvement projects for the upcoming year. Vegetation management also schedules routine maintenance trimming to help decrease the likelihood of vegetation-caused outages.<br><br>Catastrophic event descriptions:<br>1) June 29, 2025: Outages = 1099; Storm duration = 2.8 hours; Outage restoration = 2.8 hours<br>2) November 26 - 28, 2025: Outages = 5249; Storm duration = 36 hours; Outage restoration = 54 hours. (No outages exceeded 60 hours (3,600 Mins)) |

**CUSTOMER CREDITS PROVIDED DURING THE YEAR**

| Item | Sector | Number of credits provided | Total Customer Credits ($) (1) |
|---|---|---|---|
| **Customer Credits Provided for Failure to Restore Service within 96 Hours of the Start of Sustained Interruption during Catastrophic Conditions R460.732(i)** | ***Residential*** | 0 | $0.00 |
| | ***Commercial*** | 0 | $0.00 |
| | ***Industrial*** | 0 | $0.00 |
| **Customer Credits Provided for Failure to Restore Service within 48 Hours of the Start of Sustained Interruption during Gray Sky Conditions R460.732(j)** | ***Residential*** | 0 | $0.00 |
| | ***Commercial*** | 0 | $0.00 |
| | ***Industrial*** | 0 | $0.00 |
| **Customer Credits Provided for Failure to Restore Service within 16 Hours of the Start of Sustained Interruption during Normal Conditions R460.732(k)** | ***Residential*** | 0 | $0.00 |
| | ***Commercial*** | 0 | $0.00 |
| | ***Industrial*** | 0 | $0.00 |
| **Customer Credits Provided to Individual Customers Who Experienced 6 or more Sustained Interruptions. R460.732(l)** | ***Residential*** | 274 | $11,308.00 |
| | ***Commercial*** | 52 | $207.07 |
| | ***Industrial*** | 0 | $0.00 |

**WORST PERFORMING CIRCUITS DURING THE YEAR**

1. For each electric utility with 1,000,000 or more customers, a list of its 10 worst performing circuits for the prior year in terms of SAIDI and SAIFI. For each listed circuit, provide the following information below. R460.732(m) and R 460.732 (o). Please see the definition of "circuit" below in (8).

2. For each electric utility or cooperative with less than 1,000,000 customers, a list of the worst performing 1% of circuits for the prior year in terms of SAIDI and SAIFI. For each listed circuit, provide the following information below. R460.732(n) and R 460.732 (o). Please see the definition of "circuit" below in (8).

**Worst performing circuit(s) by SAIDI excluding major event days (MEDs)** (7), (8), (11)

| | Circuit 1 | Circuit 2 | Circuit 3 | Circuit 4 | Circuit 5 | Circuit 6 | Circuit 7 | Circuit 8 | Circuit 9 | Circuit 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Circuit Name** | **PSI020** | | | | | | | | | |
| **Circuit Number** | **20** | | | | | | | | | |
| **Location of Circuit - zip codes** (2) | 49947; 49967 | | | | | | | | | |
| **Circuit Length (miles)** | 13.12 | | | | | | | | | |
| **SAIDI excluding MEDs** | 2163.93 | | | | | | | | | |
| **SAIFI excluding MEDs** | 4.83 | | | | | | | | | |
| **SAIDI all conditions** | 7524.12 | | | | | | | | | |
| **SAIFI all conditions** | 6.84 | | | | | | | | | |
| **Number of Customers Served** | 95 | | | | | | | | | |
| **Substation Name** | | | | | | | | | | |
| **Last Circuit Trim (year)** (3) | 7/14/1905 | | | | | | | | | |
| **List of Outages and Causes (can be put on a separate page)** (4) | 2/26/2025: Planned<br>5/8/2025: Planned<br>5/13/2025: Vegetation<br>5/20/2025: Vegetation<br>6/8/2025: Vegetation<br>6/21/2025: Vegetation<br>6/30/2025: Unknown<br>8/16/2025: Vegetation<br>11/2/2025: Vegetation<br>11/26/2025: Other<br>11/26/2025: Vegetation<br>11/30/2025: Equipment<br>11/30/2025: Vegetation<br>12/3/2025: Vegetation<br>12/31/2025: Equipment | | | | | | | | | |
| **Corrective action to improve performance (can be put on a separate page)** | Circuit has been identified as top priority circuit on Performance Feeder Improvement Plan (FPIP) list that Engineering Operations team utilizes to prioritize system-level device resilience improvement projects for upcoming year | | | | | | | | | |

**Worst performing circuit(s) by SAIFI excluding MEDs** (7), (8), (11)

| | Circuit 1 | Circuit 2 | Circuit 3 | Circuit 4 | Circuit 5 | Circuit 6 | Circuit 7 | Circuit 8 | Circuit 9 | Circuit 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Circuit Name** | **PSI020** | | | | | | | | | |
| **Circuit Number** | **20** | | | | | | | | | |
| **Location of Circuit - zip codes** (2) | 49947; 49967 | | | | | | | | | |
| **Circuit Length (miles)** | 13.12 | | | | | | | | | |
| **SAIFI excluding MEDs** | 4.83 | | | | | | | | | |
| **SAIDI excluding MEDs** | 2163.93 | | | | | | | | | |
| **SAIFI all conditions** | 6.84 | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **SAIDI all conditions** | 7524.12 | | | | | | | | | |
| **Number of Customers Served** | 95 | | | | | | | | | |
| **Substation Name** | | | | | | | | | | |
| **Last Circuit Trim (year)** (3) | 2022 | | | | | | | | | |
| **List of Outages and Causes (can be put on a separate page)** (4) | 2/26/2025: Planned<br>5/8/2025: Planned<br>5/13/2025: Vegetation<br>5/20/2025: Vegetation<br>6/8/2025: Vegetation<br>6/21/2025: Vegetation<br>6/30/2025: Unknown<br>8/16/2025: Vegetation<br>11/2/2025: Vegetation<br>11/26/2025: Other<br>11/26/2025: Vegetation<br>11/30/2025: Equipment<br>11/30/2025: Vegetation<br>12/3/2025: Vegetation<br>12/31/2025: Equipment | | | | | | | | | |
| **Corrective action to improve performance (can be put on a separate page)** | Circuit has been identified as top priority circuit on Performance Feeder Improvement Plan (FPIP) list that Engineering Operations team utilizes to prioritize system-level device resilience improvement projects for upcoming year | | | | | | | | | |

| | CEMI0 | CEMI1 | CEMI2 | CEMI3 | CEMI4 | CEMI5 | CEMI6 | CEMI7 | CEMI8 | CEMI9 | CEMI10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CEMI Reporting for Indices CEMI0 through CEMI10+ R460.732(p)** (5) | 17% | 83% | 38% | 16% | 9% | 6% | 4% | 2% | 1% | 1% | 1% |

| **CELID** | | |
|---|---|---|
| **CELID Reporting R460.732(q)** (6) | **CELID8hours** | 20% |
| | **CELID24hours** | 18% |
| | **CELID48hours** | 5% |

| **MOMENTARY INTERRUPTIONS** | |
|---|---|
| **Number of Non-Residential Customers Experiencing Momentary Interruptions R460.732(r)** | Waiver for reporting granted in Case No. U-21803 |

**System-wide SAIDI, SAIFI, and CAIDI** (9)

| | **All conditions** | | | | | | **Excludes MEDs** (11) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **SAIDI** | | **SAIFI** | | **CAIDI** | | **SAIDI** | | **SAIFI** | | **CAIDI** | |
| Year | Annual | 5 year average | Annual | 5 year average | Annual | 5 year average | Annual | 5 year average | Annual | 5 year average | Annual | 5 year average |
| 2021 | 562.20 | 316.71 | 2.11 | 1.52 | 266.14 | 206.54 | 176.97 | 157.26 | 1.43 | 1.18 | 123.37 | 144.99 |
| 2022 | 391.06 | 325.35 | 1.97 | 1.65 | 198.32 | 193.64 | 211.83 | 172.54 | 1.48 | 1.31 | 142.85 | 141.69 |
| 2023 | 245.19 | 330.01 | 1.59 | 1.75 | 154.43 | 183.75 | 163.48 | 179.22 | 1.49 | 1.47 | 110.05 | 127.11 |
| 2024 | 166.32 | 342.15 | 1.00 | 1.82 | 166.60 | 185.83 | 115.47 | 182.35 | 0.73 | 1.48 | 157.96 | 128.39 |
| 2025 | 738.02 | 420.56 | 1.71 | 1.68 | 430.86 | 243.27 | 142.09 | 161.97 | 1.18 | 1.26 | 120.21 | 130.89 |

**Power Quality information** (10)

| | |
|---|---|
| **Power quality information shall contain data on:**<br>**a) all power quality investigations conducted in the past year for industrial customers who have requested a power quality investigation as a result of an event originating from utility equipment; and**<br>**b) power quality investigations conducted in the past year into any power quality event. For purposes of this form, a power quality event is defined as an event that affected customers on a single circuit or substation; resulted in damage to customer appliances, equipment, or wiring; and occurred within a 24-hour period. (Can be put on a separate page or pages.)** | a) None<br>b) In 2025, Xcel Energy completed 24 power quality investigations for Michigan customers. A list of these investigations is included as Attachment A. |

**DEFINITIONS AND NOTES**

(1) "Total customer credits" means the dollar amount of customer credits provided on customer bills during the year.

(2) "Location of Circuit - zip codes" refers to the zip codes where spans of the circuit are located.

(3) "Last circuit trim (year)" is the last year there was trimming on the circuit as part of a normal tree trim cycle (not reactive trimming)

(4) "List of outages and causes" - please discuss outages that meet the definition of a "major interrupton" as defined by R 460.3102(j)

(5) For CEMI0 through CEMI10+ reporting, please provide percentages. Reporting should be all conditions.

(6) For CELID reporting, please provide percentages. Reporting should be all conditions and follow the definition of CELID Single Interruption Duration per IEEE 1366-2022 section 4.2.8. Do not double count multiple outages of that fall within the same time bracket. For example, a customer experiencing two nine-hour outages should only be reported once in CELID8hrs. Longer outages may qualify for inclusion in multiple CELID metrics. For example, a customer experiencing a 30-hour outage may be reported in CELID8hrs and CELID24hrs.

(7) For the worst performing circuits sections, SAIDI and SAIFI should be calculated on a system basis. Worst performing circuits operated by utilities and cooperatives with less 1,000,000 customers should not be compared to worst performing circuits that are operated by utilities with 1,000,000 or more customers.

(8) For the worst performing circuits sections, a circuit is defined as a substation feeder or line exit from a substation serving at least 10 metered customers.

(9) The system-wide SAIDI, SAIFI, and CAIDI data is requested pursuant to MCL 460.55 and the July 7, 2023 order in Case No. U-12270.

(10) Power quality information is being requested pursuant to the July 7, 2023 order in Case No. U-12270.

(11) Major event day, or MED, is defined according to IEEE 1366-2022.

* A customer shall be defined as a "metered electric service."

** Interruptions that occur as a result of outages on customer-owned facilities, or loss of supply from another utility, should not be included in IEEE reliability index calculations.

| Work Order Number | Work Order Description | Operation Performed | Maintenance Planning Plant | Execution Date |
|---|---|---|---|---|
| 115187882 | CRS-CreateServiceOrder NC1408708144 | Customer Voltage High / Low | Ironwood SC | 11/29/2025 |
| 114684033 | CRS-CreateServiceOrder NC1370051975 | Customer Has Flickering Lights | Ironwood SC | 8/7/2025 |
| 114966025 | CRS-CreateServiceOrder NC1389635784 | Customer Has Flickering Lights | Ironwood SC | 10/5/2025 |
| 114576849 | CRS-CreateServiceOrder NC1366099602 | Customer Has Flickering Lights | Ironwood SC | 7/26/2025 |
| 114941919 | CRS-CreateServiceOrder NC1388401577 | Customer Voltage High / Low | Ironwood SC | 10/1/2025 |
| 115038539 | CRS-CreateServiceOrder NC1394929358 | Customer Has Flickering Lights | Ironwood SC | 10/21/2025 |
| 114500184 | CRS-CreateServiceOrder NC1361006283 | Customer Has Flickering Lights | Ironwood SC | 7/10/2025 |
| 114683137 | CRS-CreateServiceOrder NC1370104178 | Customer Has Flickering Lights | Ironwood SC | 8/7/2025 |
| 114436025 | CRS-CreateServiceOrder NC1356888450 | Customer Voltage High / Low | Ironwood SC | 6/27/2025 |
| 114127903 | CRS-CreateServiceOrder NC1336469978 | Customer Voltage High / Low | Ironwood SC | 5/5/2025 |
| 114109436 | CRS-CreateServiceOrder NC1335397856 | Customer Voltage High / Low | Ironwood SC | 4/24/2025 |
| 115310527 | CRS-CreateServiceOrder NC1418351983 | Customer Has Flickering Lights | Ironwood SC | 12/28/2025 |
| 114472915 | CRS-CreateServiceOrder NC1359502042 | Customer Voltage High / Low | Ironwood SC | 7/7/2025 |
| 115251734 | CRS-CreateServiceOrder NC1414023278 | Customer Has Flickering Lights | Ironwood SC | 12/14/2025 |
| 114100824 | CRS-CreateServiceOrder NC1335015429 | Customer Voltage High / Low | Ironwood SC | 4/23/2025 |
| 114966012 | CRS-CreateServiceOrder NC1389629765 | Customer Has Flickering Lights | Ironwood SC | 10/5/2025 |
| 114881384 | CRS-CreateServiceOrder NC1383985314 | Customer Has Flickering Lights | Ironwood SC | 9/17/2025 |
| 113901326 | CRS-CreateServiceOrder NC1321494350 | Customer Has Flickering Lights | Ironwood SC | 3/7/2025 |
| 115127269 | CRS-CreateServiceOrder NC1402821464 | Customer Has Flickering Lights | Ironwood SC | 11/11/2025 |
| 114778494 | CRS-CreateServiceOrder NC1377056241 | Customer Voltage High / Low | Ironwood SC | 8/27/2025 |
| 114100820 | CRS-CreateServiceOrder NC1335015275 | Customer Voltage High / Low | Ironwood SC | 4/23/2025 |
| 114761602 | CRS-CreateServiceOrder NC1376167740 | Customer Has Flickering Lights | Ironwood SC | 8/25/2025 |
| 115279729 | CRS-CreateServiceOrder NC1415660407 | Customer Has Flickering Lights | Ironwood SC | 12/19/2025 |
| 114246246 | CRS-CreateServiceOrder NC1344911642 | Customer Has Flickering Lights | Ironwood SC | 5/20/2025 |