



July 11, 2023

Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
St. Paul, Minnesota 55101

—VIA ELECTRONIC FILING—

RE: ERRATA  
2022 ANNUAL REPORT- PERFORMANCE METRICS AND INCENTIVES  
DOCKET NO. E002/CI-17-401

Dear Mr. Seuffert:

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission (MPUC) this Errata regarding the Company's 2022 Performance Metrics and Incentives Annual Report filed on April 22, 2023 in the above-noted docket.

The Company has two changes to report in its 2022 Performance Based Rates (PBR) Annual Report. The first is under the Reliability Outcome, Metric 4, CELID. We discovered a decimal error reported in Attachment A. Table 1 reflects the corrected percentages.

**Table 1**  
**Corrected Reliability Outcome- CELID**

<b>2022</b>	<b>All Days - Corrected</b>	All Days – As Filed	<b>Annual Rules Normalized - Corrected</b>	Annual Rules Normalized – As Filed
CELID	<b>0.835%</b>	0.0835%	<b>.034%</b>	.0034%

The second update is under the Environmental Performance Outcome, Metric 5(b). This metric reports CO2 emissions avoided by electrification of transportation and is specific to Xcel Energy's residential electric vehicle (EV) programs, calculating the percent of managed charging customers' residential EV charging load occurring during off-peak hours. In our 2021 and 2022 PBR Annual Reports, we inadvertently included fleet (commercial) data in our reporting. The corrected reporting is listed in Table 2.

**Table 2**  
**Corrected Environmental Performance Outcome- CO2 Emissions Avoided by**  
**Electrification of Transportation**

	<b>% of Res Managed Charging Load Off-Peak - Corrected</b>	<b>% of Res Managed Charging Load Off-Peak – As Filed</b>
2021	<b>90.8%</b>	89.5%
2022	<b>89.7%</b>	86.9%

We have included an updated Attachment A reflecting the corrections noted in this Errata.

We apologize for any inconvenience this has caused. We have electronically filed this document with the Commission, and copies have been served on the parties on the attached service list. Please contact Taige Tople at [taige.d.tople@xcelenergy.com](mailto:taige.d.tople@xcelenergy.com) or (612) 216-7953, or myself at [bridget.dockter@xcelenergy.com](mailto:bridget.dockter@xcelenergy.com) or (612)-337-2096 if you have any questions regarding this filing.

Sincerely,

/s/

BRIDGET N. DOCKTER  
MANAGER, POLICY AND OUTREACH

cc: Service Lists

				METRICS TRACKING RESULTS AND EVALUATIONS					
OUTCOME	COMMISSION-APPROVED METRIC	Reporting Status	APPROVED CALCULATION METHOD REPORT ANNUALLY	2022	2021	2020	2019	2018	2017
<b>Affordability</b>									
1	Rates per kWh based on total revenue, reported (1) by customer class and (2) with all classes aggregated	Began in 2020 PBR Report	NSPM-MN customers only.	<ul style="list-style-type: none"> <li>Residential: \$0.15601/kWh</li> <li>Commercial: \$0.13256/kWh</li> <li>Industrial: \$0.10263/kWh</li> <li>Total Customers: \$13243/kWh</li> </ul>	<ul style="list-style-type: none"> <li>Residential: \$0.13921/kWh</li> <li>Commercial: \$0.11576/kWh</li> <li>Industrial: \$0.08996/kWh</li> <li>Total Customers: \$0.11689/kWh</li> </ul>	<ul style="list-style-type: none"> <li>Residential: \$0.13740/kWh</li> <li>Commercial: \$0.10494/kWh</li> <li>Industrial: \$0.07975/kWh</li> <li>Total Customers: \$0.10908/kWh</li> </ul>	<ul style="list-style-type: none"> <li>Residential: \$0.13625/kWh</li> <li>Commercial: \$0.10400/kWh</li> <li>Industrial: \$0.08023/kWh</li> <li>Total Customers: \$0.10724/kWh</li> </ul>	<ul style="list-style-type: none"> <li>Residential: \$0.14147/kWh</li> <li>Commercial: \$0.10549/kWh</li> <li>Industrial: \$0.08138/kWh</li> <li>Total Customers: \$0.10957/kWh</li> </ul>	<ul style="list-style-type: none"> <li>Residential: \$0.13786/kWh</li> <li>Commercial: \$0.10805/kWh</li> <li>Industrial: \$0.07839/kWh</li> <li>Total Customers: \$0.10840/kWh</li> </ul>
2	Average monthly bills for residential customers	Began in 2020 PBR Report	Report annually: $\frac{\text{Total Annual Residential Class Revenue}}{\text{Total Number of Residential Customers Served}}$	\$98.62	\$90.72	\$88.28	\$83.74	\$91.30	\$84.75
3	Total disconnections for nonpayment for residential customers	Reported Prior to PBR	Continue same system-generated process to determine total disconnections for nonpayment used in Quality Service Plan (QSP) reports, Cold Weather Rule, and Annual Electric Low Income Discount reporting. Process includes internal system-generated reporting of monthly disconnections on a Commission-approved template per Minn. Stat. § 216B.091.	9,263	6,062	2,819	14,939	16,218.00	17,777
4	Total arrearages for residential customers	Reported Prior to PBR	Continue same calculation process to determine total arrearages for reporting in Quality Service Plan (QSP) reports, Cold Weather Rule, and Annual Electric Low Income Discount reporting. Process includes internal system-generated reporting of monthly bad debt where arrearages are calculated by company, customer type, active/inactive, number days overdue.	\$88,482,147	\$82,753,364	\$60,838,363	\$44,976,724	\$44,895,753.00	\$40,898,573.00
<b>Reliability</b>									
1	System Average Interruption Duration Index (SAIDI): Indicates average interruption duration per customer during defined period of time.	Reported Prior to PBR	Report with and without major event days.  $\frac{\text{Sum of Total Sustained Customer Interruption Durations}}{\text{Total Number of Customers Served}}$  "Sustained event" = duration of more than 5 minutes  <b>Order Point:</b> Direct Xcel to use a Normalization method consistent with the Commission's most recent Order in the Annual Service Quality, Safety, and reliability docket in reporting their SAIDI, SAIFI, CAIDI, CELID, and ASAI within this docket.	All Days: 184.42 Annual Rules Normalized: 90.00	All Days: 129.94 Annual Rules Normalized: 88.79	All Days: 134.19 Annual Rules Normalized: 98.92	All Days: 124.50 Annual Rules Normalized: 81.02	All Days: 125.00 Annual Rules Normalized: 96.07	All Days: 141.70 Annual Rules Normalized: 75.04
2	System Average Interruption Frequency Index (SAIFI): Indicates average number of sustained interruptions per customer over defined period of time.	Reported Prior to PBR	Use Jan–Dec each year to align with current reporting. Report with and without major event days. Proposed formula:  $\frac{\text{Sum of Total Sustained Customers Interrupted}}{\text{Total Number of Customers Served}}$  <b>Order Point:</b> Direct Xcel to use a Normalization method consistent with the Commission's most recent Order in the Annual Service Quality, Safety, and reliability docket in reporting their SAIDI, SAIFI, CAIDI, CELID, and ASAI within this docket.	All Days: 1.08 Annual Rules Normalized: 0.86	All Days: 1.04 Annual Rules Normalized: 0.92	All Days: 1.07 Annual Rules Normalized: 0.99	All Days: 0.86 Annual Rules Normalized: 0.75	All Days: 0.95 Annual Rules Normalized: 0.89	All Days: 0.90 Annual Rules Normalized: 0.74
3	Customer Average Interruption Duration Index (CAIDI): Indicates average time to restore service to customers that have been interrupted from sustained event.	Reported Prior to PBR	Report with and without major event days. Proposed formula:  $\frac{\text{Sum of Total Sustained Customer Interruption Durations}}{\text{Sum of Total Sustained Customers Interrupted}}$  <b>Order Point:</b> Direct Xcel to use a Normalization method consistent with the Commission's most recent Order in the Annual Service Quality, Safety, and reliability docket in reporting their SAIDI, SAIFI, CAIDI, CELID, and ASAI within this docket.	All Days: 170.24 Annual Rules Normalized: 104.05	All Days: 124.67 Annual Rules Normalized: 96.31	All Days: 124.89 Annual Rules Normalized: 100.28	All Days: 145.30 Annual Rules Normalized: 108.29	All Days: 131.22 Annual Rules Normalized: 107.39	All Days: 158.10 Annual Rules Normalized: 100.90
4	Customers Experiencing Long Interruption Duration (CELID): Indicates ratio of customers experiencing interruptions with duration equal to or greater than "d" during defined period of time.	Reported Prior to PBR	Report with and without major event days. Proposed formula:  $\frac{\text{Total Number of Customers that experienced interruptions of "d" or more hours duration}}{\text{Total Number of Customers Served}}$  Propose "d" = 24 hours. Consistent with annual Service Quality Plan, where customers experiencing outage of 24 hours or more receive \$50 bill credit for each outage occurrence lasting longer than 24 hours.  <b>Order Point:</b> Direct Xcel to use a Normalization method consistent with the Commission's most recent Order in the Annual Service Quality, Safety, and reliability docket in reporting their SAIDI, SAIFI, CAIDI, CELID, and ASAI within this docket.	All Days: .835% Annual Rules Normalized: .034%	All Days: 0.496% Annual Rules Normalized: 0.113%	All Days: 0.339% Annual Rules Normalized: 0.133%	All Days: 0.562% Annual Rules Normalized: 0.047%	All Days: 0.748% Annual Rules Normalized: 0.051 %	All Days: 1.030% Annual Rules Normalized: 0.078 %
5	Customers Experiencing Multiple Interruptions (CEMI): Indicates ratio of individual customers experiencing more than "n" sustained interruptions to total number of customers served.	Reported Prior to PBR	Report with and without major event days:  $\frac{\text{Total Number of Customers that experience more than "n" sustained interruptions}}{\text{Total Number of Customers Served}}$  Propose "n" to be 5 sustained interruptions. Consistent with annual Service Quality Report, where customers experiencing more than 5 sustained interruptions in a year receive \$50 bill credit.  <b>Order Point:</b> Direct Xcel to use a Normalization method consistent with the Commission's most recent Order in the Annual Service Quality, Safety, and reliability docket in reporting their SAIDI, SAIFI, CAIDI, CELID, and ASAI within this docket.	All Days: 0.786% Annual Rules Normalized: 0.421%	All Days: 0.674% Annual Rules Normalized: 0.467%	All Days: 0.538% Annual Rules Normalized: 0.366%	All Days: 0.450 % Annual Rules Normalized: 0.137%	All Days: 0.699% Annual Rules Normalized: 0.591%	All Days: 0.523% Annual Rules Normalized: 0.231%

OUTCOME	COMMISSION-APPROVED METRIC	Reporting Status	APPROVED CALCULATION METHOD REPORT ANNUALLY	2022	2021	2020	2019	2018	2017
6	Average Service Availability Index (ASAI): Similar to SAIDI - is percentage of time service is available. (Whereas SAIDI is average total amount of time service is unavailable.)	Reported Prior to PBR	Report with and without major event days:  <u>Customer Hours Service Availability</u> Customer Hours Service Demanded  <b>Order Point:</b> Direct Xcel to use a Normalization method consistent with the Commission's most recent Order in the Annual Service Quality, Safety, and reliability docket in reporting their SAIDI, SAIFI, CAIDI, CELID, and ASAI within this docket.	All Days: 99.9649% Annual Rules Normalized: 99.9829%	All Days: 99.9752% Annual Rules Normalized: 99.9831%	All Days: 99.9745% Annual Rules Normalized: 99.9812%	All Days: 99.9763% Annual Rules Normalized: 99.9846%	All Days: 99.9762% Annual Rules Normalized: 99.9817%	All Days: 99.9730% Annual Rules Normalized: 99.9857%
7	Momentary Average Interruption Frequency Index (MAIFI): The amount of momentary interruptions a customer would experience during a period of time.	Reported Prior to PBR, but not with AMI technology. Propose and Tracking in 2026, Report in 2027	Report with and without major event days:  <u>Sum of Total Momentary Customer Interruptions</u> Total Number of Customers Served  Momentary events = having duration of less than or equal to 5 minutes.	Discussion in narrative.	Discussion in narrative.	Discussion in narrative.	NA	NA	NA
8	Power Quality	New, once AMI capabilities are determined. Propose and Tracking in 2026, Report in 2027	None currently. Could be tracked, and percent of customer exceptions can be reported with AMI data. Specific capabilities still being developed and will be determined over the coming years.	Discussion in narrative.	Discussion in narrative.	Discussion in narrative.	NA	NA	NA
<b>Customer Service Quality</b>									
1	Existing multi-sector metrics, including ACSI and J.D. Power (NSPM)	Began in 2020 PBR Report	Reporting from Xcel Energy's subscription to J.D. Power and public information published by ACSI.	J.D. Power discussion in narrative.  ACSI Study: <a href="https://www.theacsi.org/index.php?option=com_content&amp;view=article&amp;id=149&amp;catid=&amp;Itemid=214&amp;i=Investor-Owned+Energy+Utilities">https://www.theacsi.org/index.php?option=com_content&amp;view=article&amp;id=149&amp;catid=&amp;Itemid=214&amp;i=Investor-Owned+Energy+Utilities</a>	J.D. Power discussion in narrative.  ACSI Study: <a href="https://www.theacsi.org/index.php?option=com_content&amp;view=article&amp;id=149&amp;catid=&amp;Itemid=214&amp;i=Investor-Owned+Energy+Utilities">https://www.theacsi.org/index.php?option=com_content&amp;view=article&amp;id=149&amp;catid=&amp;Itemid=214&amp;i=Investor-Owned+Energy+Utilities</a>	J.D. Power discussion in narrative.  ACSI Study: <a href="https://www.theacsi.org/index.php?option=com_content&amp;view=article&amp;id=149&amp;catid=&amp;Itemid=214&amp;i=Investor-Owned+Energy+Utilities">https://www.theacsi.org/index.php?option=com_content&amp;view=article&amp;id=149&amp;catid=&amp;Itemid=214&amp;i=Investor-Owned+Energy+Utilities</a>	NA	NA	NA
2	Call center response time: Measures telephone response time.	Reported Prior to PBR	Calls answered by a call center representative within 20 seconds + all calls handled via self-service in the <u>Interactive Voice Response (IVR) system</u> Total calls into our call centers or business office	84.59%	82.90%	85.8%	90.80%	91.12%	90.10%
3	Billing invoice accuracy: Measures percent of accurate invoices Xcel Energy issues to customers.	Reported Prior to PBR	<u>Number of invoices canceled for controllable reasons</u> Total number of invoices issued  "Controllable reasons" = human errors made by field or office personnel, billing system and metering system communications errors, and malfunctioning meter equipment.	47,452 controllable cancel rebills in 2022, 25,258,502 invoices sent in 2022. Data is from M2M Detailed Reports 47,452/25,258,502 = 99.81% accurate	37,222 controllable cancel rebills in 2021, 24,936,261 invoices sent in 2021. Data is from M2M Detailed Reports 37,222/24,936,261 = 99.85% accurate	39,983 controllable cancel rebills in 2020, 21,702,130 invoices sent in 2020. Data is from M2M Detailed Reports 39,983/21,702,130 = 99.82% accurate	35,358 controllable cancel rebills in 2019, 24,193,752 invoices sent in 2019. Data is from M2M Detailed Reports 35,358/24,193,752 = 99.83% accurate	29,894 controllable cancel rebills in 2018, 21,222,643 invoices sent in 2018. Data is from M2M Detailed Reports 29,894/21,222,643 = 99.86% accurate	39,196 controllable cancel rebills in 2017, 21,029,969 invoices sent in 2017. Data is from M2M Detailed Reports 39,196/21,029,969 = 99.85% accurate
4	Number of customer complaints: Measures number of complaints based on number of complaints per 1,000 customers to regulatory agencies to ensure performance is measured in relation to total customer base.	Reported Prior to PBR	Number of MPUC Complaints < Number of Customers/1000 x 0.2059	1,823,353/ 1000 x 0.2059= 375 330 MPUC complaints by Xcel Energy < 375 2022 Threshold per QSP calculation The calculation for the per 1000 customers is: 1,823,353 Customers/1000 = 1823.353 number of complaints 330: Calculation 330/1823.353 =.1810 which is less than the .2059 threshold.	1,803,744/ 1000 x 0.2059= 371 257 MPUC complaints by Xcel Energy < 371 2021 Threshold per QSP calculation The calculation for the per 1000 customers is: 1,803,744 Customers/1000 = 1803.744 number of complaints 257: Calculation 257/1803.744 =.1425 which is less than the .2059 threshold.	1,782,621/ 1000 x 0.2059= 367 239 MPUC complaints by Xcel Energy < 367 2020 Threshold per QSP calculation The calculation for the per 1000 customers is: 1,782,621 Customers/1000 = 1782.621, number of complaints 239: Calculation 239/1782.621 =.1341 which is less than the .2059 threshold.	1,765,013/ 1000 x 0.2059= 363 396 MPUC complaints by Xcel Energy > 367 2019 Threshold per QSP calculation The calculation for the per 1000 customers is: 1,765,013 Customers/1000 = 1765.013, number of complaints 396: Calculation 396/1765.013 =.2243 which is more than the .2059 threshold.	1,749,615/ 1000 x 0.2059= 360 248 MPUC complaints by Xcel Energy < 360 2018 Threshold per QSP calculation The calculation for the per 1000 customers is: 1,749,615 Customers/1000 = 1749.615 number of complaints 248: Calculation 248/1749.615 =.1417 which is less than the .2059 threshold.	1,734,941/1000 x 0.2059= 357 113 MPUC complaints by Xcel Energy < 357 2017 Threshold per QSP calculation The calculation for the per 1000 customers is: 1,734,941 Customers/1000 = 1734.941, number of complaints 113: Calculation 113/1734.941 =.0651 which is less than the .2059 threshold.

OUTCOME	COMMISSION-APPROVED METRIC	Reporting Status	APPROVED CALCULATION METHOD REPORT ANNUALLY	2022	2021	2020	2019	2018	2017
<b>Environmental Performance</b>									
1	Total carbon emissions by: (1) utility-owned facilities and PPAs and (2) all sources	Began in 2020 PBR Report	Leverage Xcel Energy reporting to The Climate Registry (TCR) by data "pools." <ul style="list-style-type: none"> <li>Pool 1 = owned zero-emission facilities</li> <li>Pool 2 = owned fossil electric generating units (EGUs) equipped with continuous emission monitoring systems (CEMS)</li> <li>Pool 3 = owned fossil EGUs not equipped with CEMS</li> <li>Pool 4 = purchased power agreements (PPAs)</li> <li>Pool 5 = short-term and spot-purchased power from known sources (to which we can ascribe a specific emissions)</li> <li>Pool 6 = short-term and spot-purchased power from unknown sources in MISO market (to which we cannot ascribe a specific emissions rate so apply regional grid average CO2 rates from EPA).</li> </ul> <p>In calculating total carbon emissions from utility-owned facilities and PPAs only, include Pools 1-4 only.</p> <p>In calculating emissions from all sources, include Pools 1 through 6.</p> <p>We include CO2 from MISO market purchases, but deduct CO2 from trade margin sales, since this energy does not serve customers, and if energy purchasers report this CO2, would result in double-counting.</p>	(a) Utility-owned facilities and PPAs = 12,612,098 tons  (b) All sources = 12,649,295 tons.	(a) Utility-owned facilities and PPAs = 13,729,970 tons  (b) All sources = 13,800,098 tons.	(a) Utility-owned facilities and PPAs = 12,710,943 tons  (b) All sources = 12,801,300 tons.	(a) Utility-owned facilities and PPAs = 15,193,303 tons  (b) All sources = 16,229,466 tons	(a) Utility-owned facilities and PPAs = 17,132,871 tons  (b) All sources = 18,549,479 tons	(a) Utility-owned facilities and PPAs = 17,537,080 tons  (b) All sources = 18,891,471 tons
2	Carbon intensity (emissions per MWh) by: (1) utility-owned facilities and PPAs and (2) all sources	Began in 2020 PBR Report	For carbon intensity from utility-owned facilities and PPAs only, divide total CO2 from Pools 1-4 by total generation (MWh) for resources in those pools to derive CO2 intensity in pounds per MWh.  For carbon intensity from all sources, divide total CO2 from Pools 1-6 by total generation (MWh) for resources in those pools to derive CO2 intensity in pounds per MWh.  We include CO2 from MISO market purchases, but deduct CO2 from trade margin sales, since this energy does not serve customers, and if energy purchasers report this CO2, would result in double-counting.	(a) Utility-owned facilities and PPAs = 602 pounds per MWh  (b) All sources = 603 pounds per MWh.	(a) Utility-owned facilities and PPAs = 667 pounds per MWh  (b) All sources = 669 pounds per MWh.	(a) Utility-owned facilities and PPAs = 640 pounds per MWh  (b) All sources = 643 pounds per MWh.	(a) Utility-owned facilities and PPAs = 760 pounds per MWh  (b) All sources = 786 pounds per MWh	(a) Utility-owned facilities and PPAs = 829 pounds per MWh  (b) All sources = 857 pounds per MWh	(a) Utility-owned facilities and PPAs = 865 pounds per MWh  (b) All sources = 893 pounds per MWh
3	Total criteria pollutant emissions	Began in 2020 PBR Report	Report criteria pollutant information for utility-owned facilities only. Nitrous oxide (NOx) and sulfur dioxide (SO2) emissions are tracked based upon state and federal monitoring requirements. Various emissions monitoring methods are used, depending upon facility and pollutant, including CEMS, fuel flow and fuel analysis. For particulate matter (PM), emissions are tracked based on allowed state reporting methodologies including stack test data and use of EPA AP-42 emission estimates.	• NOx: 6,802 tons • SO2: 3,354 tons • PM: 492 tons • Mercury: 0.0376 tons • Lead: 0.0635 tons  Additional discussion in narrative	• NOx: 7,318 tons • SO2: 3,886 tons • PM: 541 tons • Mercury: 0.0378 tons • Lead: 0.0563 tons  Additional discussion in narrative	• NOx: 6,050 tons • SO2: 3,356 tons • PM: 472 tons • Mercury: 0.0435 tons • Lead: 0.0532 tons  Additional discussion in narrative	• NOx: 7,919 tons • SO2: 4,695 tons • PM: 554 tons • Mercury: 0.0375 tons • Lead: 0.0615 tons  Additional discussion in narrative	• NOx: 9,550 tons • SO2: 6,634 tons • PM: 648 tons • Mercury: 0.0355 tons • Lead: 0.0730 tons  Additional discussion in narrative	• NOx: 9843 tons • SO2: 5728 tons • PM: 1006 tons • Mercury: 0.0325 tons • Lead: 0.0785 tons  Additional discussion in narrative
4	Criteria pollutant emission intensity per MWh	Began in 2020 PBR Report	Track and report emissions of NOx, SO2 and PM as proposed for "Total criteria pollutant emissions," and then divide those figures by total MWh of generation to derive criteria pollutant emission intensity.	• NOx: 0.439 pounds per MWh • SO2: 0.216 pounds per MWh • PM: 0.032 pounds per MWh • Mercury: 0.000002 pounds per MWh • Lead: 0.000004 pounds per MWh	• NOx: 0.479 pounds per MWh • SO2: 0.254 pounds per MWh • PM: 0.035 pounds per MWh • Mercury: 0.000002 pounds per MWh • Lead: 0.000004 pounds per MWh	• NOx: 0.416 pounds per MWh • SO2: 0.231 pounds per MWh • PM: 0.032 pounds per MWh • Mercury: 0.000003 pounds per MWh • Lead: 0.000004 pounds per MWh	• NOx: 0.509 pounds per MWh • SO2: 0.302 pounds per MWh • PM: 0.036 pounds per MWh • Mercury: 0.000002 pounds per MWh • Lead: 0.000004 pounds per MWh	• NOx: 0.575 pounds per MWh • SO2: 0.400 pounds per MWh • PM: 0.039 pounds per MWh • Mercury: 0.000002 pounds per MWh • Lead: 0.000004 pounds per MWh	• NOx: 0.619 pounds per MWh • SO2: 0.360 pounds per MWh • PM: 0.000002 pounds per MWh • Mercury: 0.000005 pounds per MWh • Lead: pounds per MWh
5(a)	CO2 emissions avoided by electrification of transportation – Alternative & Original approach	Began in 2020 PBR Report	Percent of EVs in Xcel Energy's MN service territory participating in managed charging programs or on whole-house TOU rates. Proposed formula:  Customers on EV-specific managed charging rates or whole-house TOU rates who have self-identified as EV owners.  Number of EVs registered in Xcel Energy's service territory	• 10.84% • 2,271 • 20,941	• 8.61% • 1,761 • 20,449	7.23%  Additional discussion in narrative.	6.16%	4.50%	3.39%
5(b)	CO2 emissions avoided by electrification of transportation – Alternative & Original approach	Began in 2020 PBR Report	Percent of managed charging customers' residential EV charging load occurring during off-peak hours. Proposed formula:  Total annual energy consumed (MWh) by EVs charging during off-peak hours at the residences of customers enrolled in Xcel Energy's EV TOU rates or other managed charging programs  Total annual energy consumed (MWh) by EVs charging at residences of customers enrolled in Xcel Energy's EV TOU rates or other managed charging programs	89.7%	90.8%	93.9%  Additional discussion in narrative.	94.0%	92.8%	92.70%

OUTCOME	COMMISSION-APPROVED METRIC	Reporting Status	APPROVED CALCULATION METHOD REPORT ANNUALLY	2022	2021	2020	2019	2018	2017
5(c)	CO2 emissions avoided by electrification of transportation – Alternative & Original approach	Began in 2020 PBR Report	Calculation methodology has not changed this year and includes the following with additional detail given in the narrative: • Calculation of the total annual kWh consumption by EVs in the Company's Minnesota service territory. • Calculation of CO2 emissions from EV charging by multiplying the total annual kWh consumption by the system average CO2 rate per kWh, as reported annually to The Climate Registry and third-party verified. For EV customers who are also renewable energy tariff subscribers a rate of 0 lbs/kWh is assigned. • Calculation of CO2 that would have otherwise been emitted by gasoline vehicles for an equivalent number of miles traveled by EVs conservatively using data from DOE Alternative Fuels Data Center and EPA. • The CO2 avoidance metric is then calculated as the difference between emissions from annual EV use and displaced emissions that otherwise would have occurred from equivalent travel by gasoline vehicles.	77 customers were enrolled in Windsorce with their participation in the Residential EV Charging Service tariff  Avoided CO2 emissions is 75,180 tons  Additional discussion in narrative.	76,895 tons  Additional discussion in narrative.	53,784 tons  Additional discussion in narrative.	39,355 tons  Additional discussion in narrative.	31,376 tons  Additional discussion in narrative.	25,857 tons  Additional discussion in narrative.
6	CO2 emissions avoided by electrification of buildings, agriculture, and other sectors	Began in 2020 PBR Report	Calculate CO2 avoidance based on comparison of CO2 emitted to provide same service (water heating, space heating, etc.) with electricity vs. with fossil fuel.  Proposed formula: (Annual average CO2 emissions from the fossil electric appliances) – ((energy (in kWh) consumed by the electric appliance) * (Xcel Energy's annual system average CO2 rate per kWh))	No quantitative results to report for 2022.  Additional discussion in narrative re CIP/ECO and NGIA.	No quantitative results to report for 2021.  Additional discussion in narrative.	No quantitative results to report for 2020  Additional discussion in narrative.	No quantitative results for 2019	No quantitative results for 2018	No quantitative results for 2017
7	Discussion of methane emissions, including proposed methodology for reporting	Began in 2020 PBR Report	Not included in proposed metrics and methodologies, but ordered by Commission (April 16, 2020 Order, order point 1.d) In Reply comments address our position i. Fresh Energy's proposed methane leakage rate value of 3%; the Department's recommended leakage rate of 1.87% (Department changed to .2% at the hearing); or None or <.2% based on reporting to the EPA under subpart W of the GHG Reporting Program.	In 2021 as reported to EPA Mandatory Greenhouse Gas Reporting Rule under Subpart W, the methane emission rates on the gas distribution system controlled by Xcel Energy was 0.121% for NSPM and 0.163% enterprise wide.  Note that for this Environmental Performance metric only, the reported data is for 2021, not 2022, since Subpart W data for 2022 is not yet available as of April 2023.  Additional discussion in narrative.	In 2020 as reported to EPA Mandatory Greenhouse Gas Reporting Rule under Subpart W, the methane emission rates on the gas distribution system controlled by Xcel Energy was 0.121% for NSPM and 0.146% enterprise wide.  Note that for this Environmental Performance metric only, the reported data is for 2020 not 2021, since Subpart W data for 2021 is not yet available as of April 2022.  Additional discussion in narrative.	In 2019 as reported to EPA Mandatory Greenhouse Gas Reporting Rule under Subpart W, the methane emission rates on the gas distribution system controlled by Xcel Energy was 0.107% for NSPM and 0.144% enterprise wide.  Note that for this Environmental Performance metric only, the reported data is for 2019 not 2020, since Subpart W data for 2020 is not yet available as of April 2021.  Additional discussion in narrative.	NA	NA	NA
8	Require Xcel Energy to include in its PBR annual reports information on: availability of data specific to its gas suppliers on upstream methane emissions; regulation of methane emissions upstream of the Company's distribution system, and the Company's position on such regulations; participation in voluntary initiatives to quantify and reduce methane from gas suppliers; any certified gas purchases; pilots with gas marketers to track and source gas with lower associated methane emissions; and any other actions the Company has taken to secure data on and/or reduce upstream methane emissions. No later than 2024, the Company will re-evaluate data available on upstream methane to consider feasibility of reporting of methane emissions attributable to total natural gas purchases across the full fuel cycle (from drilling and extraction to the end-use).	Began in 2021 PBR Report		Additional Discussion in narrative.	Additional Discussion in narrative.	New metric for 2021. Nothing reported for 2020.	NA	NA	NA
9	Once the Commission has determined adequate data on upstream methane is available to support utility-specific reporting of such emissions, methane emissions across the full fuel cycle in its calculation of greenhouse gas emissions avoided by electrification of buildings, agriculture, and other sectors.	New / TBD		May be dependent on 2021 hearing outcome.	We do not report yet.	New metric for 2021. Nothing reported for 2020.	NA	NA	NA

OUTCOME	COMMISSION-APPROVED METRIC	Reporting Status	APPROVED CALCULATION METHOD REPORT ANNUALLY	2022	2021	2020	2019	2018	2017
<b>Cost Effective Alignment of Generation and Load</b>									
1	Demand response, including (1) capacity available (MW & MWh) and (2) amount called (MW, MWh per year)	Reported Prior to PBR	System Generated	(1)Total Capacity Available in MN 772 Gen. MW and 165,134 Gen. MWh. (2) Total Actual Capacity called (2022) 0 Gen. MW and 1,671 Gen. MWh.	(1)Total Capacity Available in MN (summer 2021) 764 Gen. MW and 147,466 Gen. MWh. (2) Total Actual Capacity called (2020) 0 Gen. MW and 2,192 Gen. MWh.	Total Capacity Available in MN (summer 2020) 755 Gen. MW and 155,967 Gen. MWh. Total Actual Capacity called (2020) 0 Gen. MW and 1,066 Gen. MWh.	Total Capacity Available in MN (summer 2019) 749 Gen. MW and 165,807 Gen. MWh. Total Actual Capacity called (2019) 0 Gen. MW and 2,633 Gen. MWh.	Total Capacity Available in MN (summer 2018) 718 Gen. MW and 150,451 Gen. MWh. Total Actual Capacity called (2018) 4 Gen. MW and 576 Gen. MWh.	Total Capacity Available in MN (summer 2017) 658 Gen. MW and 134,140 Gen. MWh. Total Actual Capacity called (2017) 342 Gen. MW and 755 Gen. MWh.
2	Integration of customer loads with utility supply - Amount of demand response that SHAPES customer load profiles through price response, time varying rates, or behavior campaigns.	New / TBD	Actual MW at system peak hour before and after rate initiation or the start of a behavioral program. As these programs mature it, will be necessary to determine how participants load would have grown over time without the program. Forecasted load avoided will be based on actual trends over time.	Shaping activities such as fuel switching and time of use rates are still being reviewed as part of our pilot efforts; the first results of the residential pilot were filed on Feb. 10, 2023 in Docket No. E002/M-17-775.  Additional discussion in narrative.	Shaping activities such as fuel switching and time of use rates are still being reviewed as part of our pilot efforts.  Additional discussion in narrative.	Shaping activities such as fuel switching and time of use rates are still being reviewed as part of our pilot efforts.  Additional discussion in narrative.	NA	NA	NA
3	Integration of customer loads with utility supply - Amount of demand response that SHIFTS energy consumptions from times of high demand to times when there is a surplus of renewable generation.	New / TBD	Available MWh during times contingency events and/or shifts to particular times of the day over time. Calculations would likely be based on assumptions until a larger population of customers can be analyzed through a measurement and verification process to verify reduction in load. This calculation is the only demand respond type that will not forecast specific load – only actual shifting will be measured.	Shifting activities such as fuel switching are still being reviewed as part of our pilot efforts .  Additional discussion in narrative.	Shifting activities such as fuel switching and time of use rates are still being reviewed as part of our pilot efforts .  Additional discussion in narrative.	Shifting activities such as fuel switching and time of use rates are still being reviewed as part of our pilot efforts.  Additional discussion in narrative.	NA	NA	NA
4(a)	Integration of customer loads with utility supply - Amount of demand response that SHEDS loads that can be curtailed to provide peak capacity and supports the system in contingency events - for Available Load	Began in 2020 PBR Report	Customers with interval data to determine the actual potential demand reduction during an event, the Company completes an analysis of actual event data collected from interval data. This analysis includes the following and may differ slightly by program: <ul style="list-style-type: none"> <li>Collection of interval data (typically five years of data is analyzed at one time);</li> <li>Assign day of week and holidays to hourly data;</li> <li>Update hourly load relief by customer (by contract);</li> <li>Subtract firm kW to estimate potential load relief by hour;</li> <li>Calculate an average 24-hour profile by month for each customer which excludes weekends, holidays and event days;</li> <li>Gather 10 years of system peak system data to determine the most common peak hour by month based on frequency; and</li> <li>Average the controllable load kW for each customer using the most common peak hours by month using weekdays (excluding holidays and weekends) in a given year.</li> </ul> For customers without interval data (such as those for residential), every control season data is gathered from installed sample sites to determine load reduction capability for all Savers Switch participants. At the end of the control season we gather data for each sample point along with the corresponding weather for the control season year to use in our load management analysis.	(1)Total Capacity Available in MN 772 Gen. MW and 165,134 Gen. MWh. (2) Total Actual Capacity called (2022) 0 Gen. MW and 1,671 Gen. MWh.	Total Capacity Available in MN (summer 2021) 764 Gen. MW and 147,466 Gen. MWh.	Total Capacity Available in MN (summer 2020) 755 Gen. MW and 155,967 Gen. MWh.	Total Capacity Available in MN (summer 2019) 749 Gen. MW and 165,807 Gen. MWh.	Total Capacity Available in MN (summer 2018) 718 Gen. MW and 150,451 Gen. MWh.	Total Capacity Available in MN (summer 2017) 658 Gen. MW and 134,140 Gen. MWh.
4(a) continued			The steps to produce the forecast of potential load relief are below: <ul style="list-style-type: none"> <li>We forecast potential load relief for each sample customer by simulating interruptions for each hour given the two types of cycling strategies. The estimated potential load relief kW per customer is the difference between the observed load and the assumed cycling strategy of smart and standard switches. We estimate the potential load relief for all hours during the collection period (using the most current year data) by estimating the allowed hourly duty cycle that would be achieved by control and subtracting it from the observed kW load. The allowed duty cycle represents a simulation of the load level the AC would be controlled down to.</li> <li>We then average these individual load relief estimates per hour per customer class - residential or commercial. Next, using the average sample customer load relief estimates for the group from non-interrupt days across the summer, we build linear regression models with regressing sample load relief estimates against Temperature Humidity Index (using a rolling 5 year timeframe).</li> <li>From those regressions, a final model is selected based on statistical merit, to which we then apply corresponding system peaking weather conditions to derive a kW per customer load relief value.</li> </ul>						
4(b)	Integration of customer loads with utility supply - Amount of demand response that SHEDS loads that can be curtailed to provide peak capacity and supports the system in contingency events - for Actual Load Reduction Achieved	Began in 2020 PBR Report	Actual load relief is determined by measurements of load during an event. We measure actual load by hour compared to the delta between the actual load and the estimated load that would have occurred without the interruption. This metric will be broken up by event for emergency and contingency events.	(1)Total Capacity Available in MN 772 Gen. MW and 165,134 Gen. MWh. (2) Total Actual Capacity called (2022) 0 Gen. MW and 1,671 Gen. MWh.	Total Actual Capacity called (2020) 0 Gen. MW and 2,192 Gen. MWh.	Total Actual Capacity called (2020) 0 Gen. MW and 1,066 Gen. MWh.	Total Actual Capacity called (2019) 0 Gen. MW and 2,633 Gen. MWh.	Total Actual Capacity called (2018) 4 Gen. MW and 576 Gen. MWh.	Total Actual Capacity called (2017) 342 Gen. MW and 755 Gen. MWh.
4(c)	Metrics that measure the effectiveness and success of items above, individually and in aggregate.	Began in 2020 PBR Report	Load factor for load net of variable renewable generation. Measurement will help determine how well Xcel Energy is shaping load to integrate with most cost-effective supply including demand response, energy efficiency and DERs. The closer to one the measurement is, the more load is being shaped.	40.50%	41.20%	46.79% Annual Load Factor for load net of renewable generation (w/o Hydro being considered renewable)  Additional discussion in narrative.	52.05%	51.68%	51.72%

OUTCOME	COMMISSION-APPROVED METRIC	Reporting Status	APPROVED CALCULATION METHOD REPORT ANNUALLY	2022	2021	2020	2019	2018	2017
<b>Workforce Community Development</b>									
1	Workforce plan with data relative to plant closures to analyze attrition, skill gaps, workforce impacts, etc., and plan to address impacts as result of plant closures.	Began in 2021 PBR Report	Submit a draft comprehensive and prescriptive workforce transition plan annually and leading up to the closure of each coal fired generating unit. The "workforce transition plan" (WFTP) will include forecasted attrition, workforce impacts, solutions, and estimated solution costs. The report will evolve and forecasts will be refined as each plant nears closure, based on an employees aspirations and the decisions they choose for themselves. Per Commission Order, the Company will perform outreach to additional labor organizations and other representative organizations for feedback on the Plan.	Discussion in narrative	Discussion in narrative	Transition Plan proposal in 2020 report narrative.	N/A	NA	NA
<b>Stakeholder Discussions</b>									
1	PUBLIC DASHBOARD: Require the Company to host one or more stakeholder meetings for stakeholders to ask questions and provide feedback about the proposed scorecard.	New / TBD	_____	Discussion in narrative.	Stakeholder discussion held on February 22, 2022 in compliance with MPUC Order.	Discussion in narrative.	NA	NA	NA
2	DEMAND RESPONSE PERFORMANCE INCENTIVE: Develop and file a demand response incentive Commission consideration by Q1 2021.	New / TBD	_____	Discussion in narrative.	Discussion in narrative.	Discussion in narrative.	NA	NA	NA
3	EVALUATION CRITERIA AND BENCHMARKS: Commission to direct Xcel Energy to begin development of evaluation criteria and benchmarks 2023 after the 2022 annual report is filed.	New / TBD	The Commission will direct Xcel to work with stakeholders to develop evaluation criteria and benchmarks and file them at a later date. The Commission will wait until the appropriate step in the PIM process to decide on criteria for good versus bad performance, and establish benchmarks against which to measure Xcel's performance; however, the process of evaluating such criteria and benchmarks is likely to be complex and time-consuming, and the Commission will direct Xcel and stakeholders to begin that process.	Discussion in narrative.	Discussion in narrative.	Discussion in narrative.	NA	NA	NA

## CERTIFICATE OF SERVICE

I, Joshua DePauw, hereby certify that I have this day served copies of the foregoing document on the attached list of persons.

xx by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States mail at Minneapolis, Minnesota

xx electronic filing

**DOCKET No.      E002/CI-17-401**

Dated this 11<sup>th</sup> day of July 2023

/s/

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Joshua DePauw  
Regulatory Administrator

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_17-401_Official
David	Dahlberg	davedahlberg@nweco.com	Northwestern Wisconsin Electric Company	P.O. Box 9 104 South Pine Street Grantsburg, WI 548400009	Electronic Service	No	OFF_SL_17-401_Official
John	Farrell	jfarrell@ilsr.org	Institute for Local Self-Reliance	2720 E. 22nd St Institute for Local Self-Reliance Minneapolis, MN 55406	Electronic Service	No	OFF_SL_17-401_Official
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Annie	Levenson Falk	annielf@cubminnesota.org	Citizens Utility Board of Minnesota	332 Minnesota Street, Suite W1360  St. Paul, MN 55101	Electronic Service	No	OFF_SL_17-401_Official
Gregory C.	Miller	gmiller@dakotaelectric.com	Dakota Electric Association	4300 220th Street West  Farmington, MN 55024	Electronic Service	No	OFF_SL_17-401_Official

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Audrey	Partridge	apartridge@mncee.org	Center for Energy and Environment	212 3rd Ave. N. Suite 560  Minneapolis, Minnesota 55401	Electronic Service	No	OFF_SL_17-401_Official
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_17-401_Official
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Doug	Scott	dscott@gpisd.net	Great Plains Institute	2801 21st Ave Ste 220  Minneapolis, MN 55407	Electronic Service	No	OFF_SL_17-401_Official
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Patricia F	Sharkey	psharkey@environmentalallawcounsel.com	Midwest Cogeneration Association.	180 N LaSalle St Ste 3700 Chicago, IL 60601	Electronic Service	No	OFF_SL_17-401_Official

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