#### STATE OF MINNESOTA Before The Public Utilities Commission

Katiere Sieben Joseph K. Sullivan Hwikwon Ham Audrey Partridge John Tuma Chair Vice Chair Commissioner Commissioner Commissioner

In the Matter of Northern States Power Company d/b/a Xcel Energy – Electric's 2024 Annual Safety, Reliability, and Service Quality Report DOCKET NO. E-002/M-25-27

#### COMMENTS OF THE OFFICE OF THE ATTORNEY GENERAL— RESIDENTIAL UTILITIES DIVISION

#### **INTRODUCTION**

The Office of the Attorney General—Residential Utilities Division (OAG) respectfully submits the following Comments in response to the Public Utilities Commission's Notice of Comment Period issued on April 7, 2025. The Commission's notice requests comments solely on Xcel's proposed plans to remotely reconnect disconnected customers during heat advisories and poor air quality conditions.

The Commission ordered Xcel to propose these plans as a condition of extending Xcel's rule variance for remote disconnections that utilize Xcel's Advanced Metering Infrastructure (AMI) investments.<sup>1</sup> This condition aptly recognized that the reduced contact with economically vulnerable customers that remote disconnection allows, necessitates the use of Xcel's AMI investments to protect these same customers. The Commission's order to require Xcel to propose a plan to remotely reconnect customers during times of extreme heat or poor air quality has the potential to provide substantial health and safety benefits and ensure that consumers have access

<sup>&</sup>lt;sup>1</sup> Docket No. E-002/M-24-27, Order Accepting Reports and Setting Additional Requirements at 6 (Jan. 13, 2025) (24-27 PUC Order).

to electricity when they most need it, even when those customers are unable to pay outstanding past due balances.

The OAG is supportive of the intent of the plans that the Commission ordered. Yet, two years after the Commission required Xcel to explore plans to reconnect customers during extreme heat events, Xcel's proposal unreasonably limits the use of these plans to protect customers and lacks sufficient development or detail on the plans' estimated costs.

As such, Commission should order a modified version of Xcel's proposal to align better with the health and safety goals of the plans the Commission ordered. Likewise, unless Xcel can provide adequate justification for its 16-month further delay on implementing the plans, the OAG recommends that the Commission require plan implementation on an expedited timeline. On the noticed cost issue, the Commission should not make a determination on the reasonableness of Xcel's cost estimates in the current proceeding. Instead, the Commission should require Xcel to provide more precise and supported cost estimates that fully explain its assumptions in a compliance filing. Last, throughout these comments and summarized in the Recommendations section below, the OAG requests that Xcel provide explanations and more information on several aspects of its proposal in reply.

# I. THE COMMISSION SHOULD MODIFY XCEL'S PROPOSAL TO BETTER ALIGN WITH THE GOALS OF THE PLANS THE COMMISSION ORDERED XCEL TO DEVELOP.

The OAG is supportive of implementing plans to remotely reconnect and delay disconnection of customers during heat advisories and air quality events. However, the plan that Xcel has proposed needs further modifications to achieve the full benefits of the Commission's vision. Specifically, the Commission should modify Xcel's plan to remotely reconnect customers at the same level it uses to pause remote disconnections, and the Commission should order Xcel to explore ways to contact and communicate with customers by methods other than a voice call.

#### A. The Commission Should Require Xcel to Reconnect Customers at the Same Threshold It Suspends Disconnections—When Air Quality Is Above 151 AQI.

Xcel's plan proposes to reconnect customers using a different standard than it would use to pause disconnections for air quality. Xcel notes that the Commission's order's use of the term "high" air quality index (AQI) alert does not comport with an official air quality designation. Therefore, Xcel states that it will suspend disconnections at times when AQI is 151 or higher, which is considered "Unhealthy," but will not reconnect customers until the AQI level reaches 201, which is considered "Very Unhealthy."<sup>2</sup>

The Commission aptly required Xcel to propose a plan to "restore power for involuntary disconnected customers with AMI when *high* air quality index alerts have been issued."<sup>3</sup> But "high" does not mean "historic." There have been only three days where an area in Minnesota has reached the Very Unhealthy threshold since Minnesota began recording AQI.<sup>4</sup> Further, Xcel provides little explanation for the logical disconnect for why customers who may need electricity to run air conditioners or air filtration systems should be protected from disconnection, but should not also have the health benefit of temporary reconnection. There are potential health impacts from Unhealthy AQI levels for customers who are behind on bills but have yet to be disconnected.

There are good reasons to set the threshold for both reconnections and disconnections at the Unhealthy level, rather than wait until the Very Unhealthy level. An AQI of 151 or higher

<sup>&</sup>lt;sup>2</sup> Xcel Annual Report on Safety, Reliability, and Service Quality, Section III at 96-97 (Apr. 1, 2025) (Xcel Annual Report).

<sup>&</sup>lt;sup>3</sup> 24-27 PUC Order at 7.

<sup>&</sup>lt;sup>4</sup> MPCA's website provides an interactive chart of Statewide AQI at all AQI category levels, <u>https://data.pca.state.mn.us/views/Minnesotaairqualityindex/AQIExternal?%3Aembed=y&%3Ai</u>sGuestRedirectFromVizportal=y

remains dangerous. The below chart provides a guide of the various AQI levels and a description of air quality at each level.

Figure	1 <sup>5</sup>	
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AQI Basics for Ozone and Particle Pollution			
Daily AQI Color	Levels of Concern	Values of Index	<b>Description of Air Quality</b>
Green	Good	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Yellow	Moderate	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Orange	Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Red	Unhealthy	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Purple	Very Unhealthy	201 to 300	Health alert: The risk of health effects is increased for everyone.
Maroon	Hazardous	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

In practicality, using an AQI of 201 or higher to trigger reconnection will provide significantly fewer protections to disconnected customers. AQI did not pass 200 in Minnesota until the 2021 wildfires.<sup>6</sup> Since that time, the Minnesota Pollution Control Agency (MPCA) reported that, through the end of 2023, only three days have triggered a Very Unhealthy alert anywhere in the state, all in 2021.<sup>7</sup>

<sup>5</sup> See Air Quality Index Basics, <u>https://www.airnow.gov/aqi/aqi-basics/</u> [permalink: <u>https://perma.cc/8Y8L-Y6JT</u>].

<sup>6</sup> Air Quality Trends and Data, Minn. Pollution Control Agency, <u>https://www.pca.state.mn.us/air-water-land-climate/air-quality-trends-and-data</u> [permalink: <u>https://perma.cc/Y7PW-7H7D</u>] <sup>7</sup> Statewide Count of Days in Each AQI Category, <u>https://data.pca.state.mn.us/views/Minnesotaairqualityindex/AQIExternal?%3Aembed=y&%3Ai</u> <u>sGuestRedirectFromVizportal=y</u> (toggle selection bar to Statewide AQI: number of days by year). At the same time, Unhealthy AQI days occur more often, but would not appear to be unmanageable for Xcel. From 2021 to 2023, the last year when MPCA has data available on its website, statewide AQI reached Unhealthy levels 10 days (2021), 2 days (2022), and 12 days (2023).<sup>8</sup> In 2021 and 2023, several of these days were consecutive, meaning that Xcel would not need to reconnect customers for each AQI day but would simply keep customers connected until the end of the event.<sup>9</sup> Further, because Xcel is proposing to use county level alerts, <sup>10</sup> Xcel would not likely be reconnecting all disconnected customers throughout its service territory during each event, making the number of customers needing to be contacted more manageable. The below chart from MPCA shows the number of days in each "AQI Region" from 2021 to 2023.

<sup>&</sup>lt;sup>8</sup> Id.

 <sup>9</sup> Calendar
 of
 Daily
 AQI
 Values,

 https://data.pca.state.mn.us/views/Minnesotaairqualityindex/AQIExternal?%3Aembed=y&%3Ai
 sGuestRedirectFromVizportal=y
 (toggle selection bar to Calendar of daily AQI values).

 <sup>10</sup> Xcel Annual Report at 96.
 Calendar of daily AQI values).
 Calendar of daily AQI values).

#### Figure 2<sup>11</sup>

#### Count of Annual AQI Days by Category

AQI Region	Year	Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy	Very Unhealthy
Marshall	2021	263	91	3	2	
	2022	303	51		2	
	2023	206	142	10	3	
Moorhead	2021	227	117	8	8	1
	2022	284	79	1		
	2023	177	166	10	2	
MPLS/St.	2021	211	151		3	
Paul	2022	235	130			
	2023	163	182	16	4	
North Metro	2021	230	127	6	2	
	2022	262	102			
	2023	176	160	19	4	
Rochester	2021	275	84	2		
	2022	280	78	1		
	2023	190	160	14	1	
South	2021	231	131	1	2	
Metro	2022	257	108			
	2023	167	178	15	5	
St. Cloud	2021	262	94	3	2	1
	2022	204	72			
	2023	199	152	11	3	
Winona	2021	240	124	1		
	2022	271	94			
	2023	199	130	5	5	

There is a logical disconnect in Xcel's proposal to use different levels to cease disconnections and reconnect customers. Xcel's proposal to only reconnect customers when AQI reaches 201, or is at Very Unhealthy levels, would limit reconnection to AQI levels seen only three times in Minnesota's history. The Commission's direction that Xcel develop a reconnection plan during times when "high air quality index alerts have been issued,"<sup>12</sup> should not be read to limit the plan to historic events. The Commission should order Xcel to institute its reconnection plan when AQI reaches 151 or higher.

<sup>&</sup>lt;sup>11</sup> Chart available at <u>https://data.pca.state.mn.us/views/Minnesotaairqualityindex/AQIExternal?%3Aembed=y&%3Ai</u>s<u>GuestRedirectFromVizportal=y</u>. For presentation, the OAG has removed the AQI Regions that are not near Xcel's service territory (Brainard, Ely, Detroit Lakes, Duluth, Fond du Lac, Grand Portage, Leech Lake, Red Lake, Virginia, Voyageurs National Park). <sup>12</sup> 24-27 PUC Order at 7.

#### **B.** The Commission Should Require Xcel to Explore Ways to Contact Customers Using Technology Other than a Telephone Call.

Xcel states that it needs disconnected customers to notify it that "necessary safety protocols" have been taken prior to reconnecting the customer.<sup>13</sup> Xcel's current proposal for customer notification contains a new requirement that customers confirm via a phone call that the breaker has been turned off before Xcel will reconnect them.<sup>14</sup> Xcel's stated reason for this is that a customer may not be expecting power to be restored and may have left a stove or other appliance on.<sup>15</sup> While Xcel states that this is necessary for safety, it provides little explanation why the only method to provide this safety check is a customer service representative sitting on a call while the customer turns the breaker off.

Notably, Xcel's requirement for voice contact with a customer is a departure from previous iterations of its excessive heat reconnection proposal. In Xcel's 2023 Service Quality Report, Xcel stated the following:

When a heat advisory or excessive heat warning is forecast to occur by the National Weather Service in the next 24 hours, the Company can query all current AMI enabled, disconnected customers. At that point, we can reach out to AMI customers *via their preferred channel, i.e. phone call, email, or MyAccount* and advise that service will be temporarily restored for the anticipated duration of the heat advisory or excessive heat warning.<sup>16</sup>

<sup>&</sup>lt;sup>13</sup> Xcel Annual Report at 97.

<sup>&</sup>lt;sup>14</sup> *Id.* at 98-99.

<sup>&</sup>lt;sup>15</sup> *Id*. at 99.

<sup>&</sup>lt;sup>16</sup> Docket No. E002/M-24-27, 2023 <u>Annual Report and Petition</u> at 33 (Apr. 1, 2024) (2023 Annual Report) (emphasis added).

Xcel's initial proposal makes sense on this point. People engage more and more with services via text, apps, and email, and less and less using telephone voice service. Particularly, customers in arrears are often more hesitant to answer the phone due to the potential for contact by collection agencies. Yet Xcel's position has shifted, and it has not explained what caused its change of position on the available methods of contact with disconnected customers. In reply, Xcel should explain exactly when and why it changed positions and determined that it would seek to require voice confirmation prior to reconnection.

Inexplicably, Xcel stated in response to information requests (IRs) from the Department of Commerce in this docket that it had not in fact explored any alternative methods for customers to confirm via telephone that their breakers were off.<sup>17</sup> Instead, Xcel stated that its proposed process "will require us to speak to the customer directly."<sup>18</sup> However, as noted above, Xcel did at one time contemplate contacting customers "via their preferred channel, i.e. phone call, email, or MyAccount."<sup>19</sup>

Additionally, Xcel needs to explain whether its current proposal for customer contact prior to reconnection is consistent with its other reconnection practices. It is not clear whether Xcel requires the voice confirmation for customers reconnecting following, for example, the customers' payment of a reconnection fee and setting up a payment plan, or whether it requires this verbal confirmation following prolonged power outages. Xcel should explain what type of customer contact is currently required prior to reconnection in these other two instances.

Further, Xcel should explain why it needs to "speak to a customer directly" rather than using another form of two-way communication, such as text, email, chat, MyAccount, or some

<sup>&</sup>lt;sup>17</sup> Attach. A (Xcel Response to DOC IR. No. 9).

 $<sup>^{18}</sup>$  *Id*.

<sup>&</sup>lt;sup>19</sup> 2023 <u>Annual Report</u> at 33.

other more automated process. If a customer could confirm on a call that the breaker has been reconnected, presumably a customer could also confirm this by signing an electronic form, responding to a text message or email, clicking a box on MyAccount or Xcel's website, or receiving an automated call and responding with a touch tone to confirm an action. In these instances, if customers have questions, they would retain the ability to contact customer service via phone.

Not only would using methods other than speaking with Xcel allow more at-risk customers to be reconnected, it is also possible that this would reduce both the development and per-event costs of the plan. For example, Xcel states that it needs \$60,000 to "[b]uild out capacity for call recording retention for customer verification of safe reconnection per internal corporate requirements."<sup>20</sup> Xcel also states that call retention will be charged per recording, per event.<sup>21</sup> Xcel estimates \$7.50 per call for each disconnected customer based on staffing costs, which comprises the vast majority of Xcel's estimated per event costs.<sup>22</sup>

Finding other ways to reach customers may provide cost benefits, increase the number of customers reconnected during events, and protect vulnerable utility customers. The Commission should not simply defer to Xcel's lack of innovation and its insistence that it "speak to customers" to confirm that it is safe to restore power. In this day and age, a range of companies communicate with customers via alternative methods of technology. As Xcel has admitted to its unwillingness to explore other methods on its own,<sup>23</sup> the Commission should order it to do so.

<sup>&</sup>lt;sup>20</sup> Attach. B (Xcel Response to DOC IR No. 2).

<sup>&</sup>lt;sup>21</sup> *Id*.

<sup>&</sup>lt;sup>22</sup> Id.

<sup>&</sup>lt;sup>23</sup> See Attach. A (Xcel Response to DOC IR No. 9).

II. XCEL MUST EXPLAIN WHY IT CANNOT IMPLEMENT THE RECONNECTION PLANS PRIOR TO SUMMER 2027 OR THE COMMISSION SHOULD ORDER AN EXPEDITED TIMELINE.

Xcel needs to further explain its 16-month estimate for plan implementation.<sup>24</sup> It has been over two years since the Commission first ordered Xcel to present a proposal to reconnect customers during periods of extreme heat.<sup>25</sup> Yet Xcel's filing provides few justifications for its estimate of 72 weeks (or 16 months), after the issuance of the Commission's order, to institute these practices.<sup>26</sup> This timeline would make it unlikely that the plans would protect customers prior to Summer 2027. While Xcel provided some additional information in response to a Department IR, the need for a full 16-months remains unexplained and unsupported. If Xcel cannot support its 16-month timeline, the Commission should order a faster one.

Over two years ago, in a March 2023 order, the Commission made proposing a hot weather remote reconnection plan a condition of authorizing Xcel's request for a variance to the rule requiring in-person visits prior to disconnection.<sup>27</sup> As the Commission observed in March 2023, "Climate change may make this intervention more pressing, just as AMI meters may make this intervention more feasible."<sup>28</sup> Following a high-level proposal for remotely reconnecting customers during periods of extreme heat in Xcel's 2023 service quality report, the Commission again ordered Xcel to propose a plan in its 2024 service quality report to reconnect customers

<sup>&</sup>lt;sup>24</sup> Xcel Annual Report at 101.

<sup>&</sup>lt;sup>25</sup> In re Petition by N. States Power Co. Requesting Approval of Changes to Its Tariff an Indefinite Variance to Commission Rules Regarding Disconnection of Service, Docket no. E-002/M-22-233, Order Approving Petition as Modified and Requiring Filings at 9 (Mar. 22, 2023).

<sup>&</sup>lt;sup>26</sup> Xcel Annual Report at 101.

<sup>&</sup>lt;sup>27</sup> See Minn. R. 7820.2500 (requiring a "personal visit by a representative of the utility to the address where the service is rendered and an attempt to make personal contact with the customer at the address"); Docket no. E-002/M-22-233, <u>Order Approving Petition as Modified and Requiring Filings</u> at 9 (Mar. 22, 2023).

during periods of extreme heat by April 1, 2025.<sup>29</sup> The Commission required a similar plan for reconnection during times of high air quality index levels.<sup>30</sup>

Now, in Spring 2025, Xcel is asking for 16 more months *after* the Commission issues a written order to implement the plan.<sup>31</sup> Under Xcel's timeline, it appears likely that it will not have the plan in place until heat-advisory and air-quality events in Summer 2027. This four year delay following the Commission's initial order, at best, appears to be a lack of prioritization by Xcel, and at worst, foot dragging.

Although Xcel included slightly more detail in an eleven-item timeline in response to a Department IR, the timeline still includes only high-level descriptions like "30 weeks of deployments for critical fixes in the queue," "four weeks business development," and "1 week general" with no explanation of what these steps entail.<sup>32</sup> Further, Xcel appears to claim that none of the items in its eleven-item list can be performed concurrently.<sup>33</sup> Xcel should provide more detail on its timeline. Particularly, it should provide support for (1) its estimate of the time needed to perform each item in the list provided; and (2) its claim that none of these timeline items can be performed concurrently or with any overlap.

Xcel has had two years to contemplate and study how it will implement a remote reconnection plan. Yet the details of its filing show that key considerations and cost estimates, as discussed further below, have not been fully developed. Still, customers in financial distress should not suffer health impacts during heat and air-quality events longer than necessary. Xcel should

<sup>&</sup>lt;sup>29</sup> Docket No. E-015/M-24-27, <u>Order Accepting Reports and Setting Additional Requirements</u> at 7 (Jan. 13, 2025).

 $<sup>^{30}</sup>$  *Id*.

<sup>&</sup>lt;sup>31</sup> Xcel Annual Report at 101.

<sup>&</sup>lt;sup>32</sup> Attach. C (Xcel Response to DOC IR No. 4).

<sup>&</sup>lt;sup>33</sup> The weeks provided in Xcel's timeline sum to 72. See id.

provide detailed reasons in reply comments regarding why it needs 16-months following the Commission third written order on a reconnection plan to implement one. If Xcel cannot sufficiently explain why its current lengthy timeline is necessary, the Commission should order implementation sooner.

#### III. THE COMMISSION SHOULD NOT MAKE A DETERMINATION ON THE REASONABLENESS OF XCEL'S PRELIMINARY COST ESTIMATES BUT SHOULD ORDER XCEL TO PROVIDE MORE DETAILED COST ESTIMATES AND PURSUE EFFICIENCIES.

The Commission need not and should not make a determination as to whether Xcel's preliminary cost estimates are reasonable. Xcel's cost estimates in its Annual Report are wholly unsupported. While Xcel provided more information in response to IRs, several of Xcel's assumptions still appear either unsupported or unreasonable. The Commission should therefore require Xcel to provide further detail on its cost estimates and demonstrate that it has created a plan that will effectively manage costs in a compliance filing.

# A. The Commission Should Not Make a Determination on the Accuracy of Xcel's Cost Estimates or the Reasonableness of Recovery of These Costs in this Proceeding.

The Notice of Comment Period asks, "Is the estimated cost of \$520,000 for implementing the proposals reasonable?" While the OAG believes that it is wise to accurately estimate costs, this expedited comment period is not appropriate for determining the reasonableness of costs or predetermining Xcel's cost recovery. This is not a cost recovery proceeding and stakeholders have not had sufficient time to scrutinize Xcel's "high-level" "preliminary estimates," nor has Xcel provided sufficient information to allow for such scrutiny.<sup>34</sup> At this time, the Commission need not make a determination on the reasonableness of these costs.

<sup>&</sup>lt;sup>34</sup> Xcel Annual Report at 100.

As explained further below, Xcel's "high-level" "preliminary estimates" are unsupported and the assumptions that it has explained appear high.<sup>35</sup> The Commission should not at this time determine that either Xcel's \$520,000 estimate for implementation or Xcel's \$160,000 per event estimate are reasonable.<sup>36</sup>

#### B. Xcel's Preliminary Cost Estimates Are Undeveloped and Unsupported.

In its report, Xcel provided the below "high-level cost estimates" for the implementation of its Heat Event and AQI Plans:

# Figure 3<sup>37</sup>

## Cost Estimates for Implementing Heat Event and AQI Plans

Activity	Estimated Cost
Development, recording and delivery of	\$360,000
messaging to customers, up front system	
enhancements, annual enhancements	
Staffing requirements per event*	\$160,000
Reconnection costs per event**	TBD

\*These estimates presume the events impact 19,000 customers.

\*\* TBD: Reconnection costs for these events are not entirely known at this time because the Company has never created this kind of framework in their existing systems and has not fully vetted or estimated the level of manual versus automated work that will be required. This will impact the actual cost of this form of reconnection activity.

Xcel provided little explanation for how it arrived at these high-level cost estimates, and provided no estimate for a reconnection cost per event. For the estimated \$360,000 in development-related costs, Xcel's report includes no information on supporting assumptions or further specifics. Further, Xcel has not shown that its estimated costs to set up the procedures are

<sup>&</sup>lt;sup>35</sup> *Id.* at 100.

<sup>&</sup>lt;sup>36</sup> Xcel revised its per-event estimate downward in response to a Department IR to \$157,000. *See* Attach. B (Xcel Response to DOC IR No. 2). However, Xcel stated that this constituted a \$6,200 downward revision from its "original staffing cost per event from \$163,000 to \$157,000." *Id.* The OAG believes \$160,000 is the correct starting point to make the \$6,200 reduction, as the \$36.50 cost per event would likely be rounded out, even when multiplied by the number of anticipated events.

<sup>&</sup>lt;sup>37</sup> Xcel Annual Report at 101 (Xcel Table 26).

incremental to costs in its pending rate case. For the \$160,000 in staffing requirements per event, Xcel's report only states that it is based on 19,000 disconnected customers per event, five days of heat-triggered reconnection events, and five days of Very Unhealthy AQI levels.<sup>38</sup> Xcel's report provides no information on "[r]econnection costs" outside of the footnote to the table above, which emphasizes that Xcel "has not fully vetted or estimated the level of manual versus automated work that will be required."<sup>39</sup> Rather than providing further information about how it arrived at the estimate, Xcel's report takes two sentences to warn the Commission of potential increasing costs through resulting from increasing wildfires, changing climate, and increased bad debt.<sup>40</sup>

While Xcel provided some additional information in response to discovery from the Department, it remains high-level and still fails to explain the methodology and assumptions underlying the estimates. Xcel's IR response provided some additional breakouts of the costs that comprise the estimated \$360,000 in development-related costs and what is listed in Xcel's report as the \$160,000 estimate for staffing requirements per event. However, the most detail provided by Xcel relates to an error it discovered in calculating the cost per inbound call, which Xcel revised down by more than half after correcting the error.<sup>41</sup>

<sup>&</sup>lt;sup>38</sup> See Xcel Annual Report at 101.

<sup>&</sup>lt;sup>39</sup> Xcel Annual Report at 101. The OAG is unclear what manual work would be required in remote reconnection, particularly as Xcel proposes to limit the reconnection plans to customers that have been remotely disconnected. While the Department asked for more information in an IR on the Reconnection Costs, Xcel provided much of the same information as it did for development costs. *See* Attach. D (Xcel Response to DOC IR No. 3). However, Xcel admitted in response to a different Department IR that it "had not identified any additional costs associated with these two programs." *See* Attach. E (Xcel Response to DOC IR No. 7).

<sup>&</sup>lt;sup>40</sup> Xcel Annual Report at 101. Because the cost is "per-event" however, it is not clear how Xcel's five day calculation of the number of days is relevant, nor is it clear that some of the days would be concurrent—making multiple days a single event.

<sup>&</sup>lt;sup>41</sup> See Attach. B. Xcel Response to DOC IR 002 explains the "Revised Inbound Amount" should be reduced from \$10,000 to \$3,800 per event to correct Xcel's error.

For both development-related costs and per-event costs, the remaining information that Xcel provided in response to discovery remains underdeveloped and includes assumptions that are likely to overestimate the costs of the plans.

For the development-related costs, Xcel provides five subtasks with cost estimates, but does not provide information on how these costs were determined. Particularly, \$180,000 of the \$360,000 amount is attributed to "Development and deployment of two full call streams for call routing and modifications to the IVR to ensure customers are served correctly."<sup>42</sup> Without further information, it is difficult to determine if this cost is reasonable. It is also difficult to know if the cost is incremental to other operations and maintenance expenses already included in Xcel's 2025 and 2026 test years in its open multi-year rate proceeding.

For the per-event cost, Xcel stated that it calculated the cost based on contacting 19,000 disconnected customers. In response to a Department IR, Xcel explained that the 19,000 disconnected customer estimate "is based upon the average number of Xcel Energy customers that were in a disconnected status any given time in 2024."<sup>43</sup>

Assuming 19,000 customers per event appears high and at odds with some of Xcel's reporting in docket no. 24-02. In its December 2024 filing, for instance, Xcel reported that 9,024 customers were disconnected in July.<sup>44</sup> In that same month, Xcel reported 1,053 customers were disconnected for 1-30 days, 494 disconnected for between 31-60 days, and 446 disconnected for 60+ days. Therefore, Xcel's reporting in 24-02 indicates that a maximum of 11,017 customers

<sup>&</sup>lt;sup>42</sup> Attach. B (Xcel Response to DOC IR No. 2).

<sup>&</sup>lt;sup>43</sup> Attach. F (Xcel Response to DOC IR No. 6).

<sup>&</sup>lt;sup>44</sup> See Attach. G (Xcel December 2024 Residential Customer Status Report). The OAG chose July for this example because it is the most likely month for heat triggered reconnections and because Xcel's reporting for May 2024, which had the highest number of initial disconnections, is incomplete.

were in disconnected status in July 2024.<sup>45</sup> This is significantly less than the 19,000 average that Xcel reports, which is puzzling as no month appears significantly higher than July in terms of disconnections. The OAG is not clear from Xcel's response whether Xcel's 19,000 is the purported average number of residential customers or all customers. Nor is it clear whether Xcel's average double counts customers disconnected more than once within the year. Last, it is not clear from Xcel's response whether this number includes customers that have been disconnected for a significant number of months.

The OAG requests that Xcel clarify in reply comments how it derived a 19,000 average for its disconnected customer count. Specifically, Xcel should clarify whether it used only residential customers in its 19,000 estimate or included other customers in disconnected status. Xcel should further explain whether its average may double-count customers disconnected more than once within 2024. Last, Xcel should break down any disconnected customer estimate into the number of customers who have been disconnected for (1) longer than 30 days; (2) between 30 and 60 days; and (3) longer than 60 days.

For AQI triggered reconnection, its unlikely that the full number, whatever that may be, of Xcel's disconnected customers would be contacted for reconnection each event. Xcel's service territory is expansive, while as shown in Figure 2 above, the number of days of events differs widely across the state. For example, in 2023, Moorhead experienced just 2 days of Unhealthy AQI, while the South Metro experienced 5 days of Unhealthy AQI. In 2021, however, Moorhead experienced 8 days of Unhealthy AQI while the South Metro experienced only 2. And in 2022, many areas of Xcel's service territory, including the North Metro, South Metro, and MPLS/St. Paul, had no Unhealthy AQI days, while Marshall had 2. Therefore, assuming an air-quality event

would be triggered for all of Xcel's disconnected customers, regardless of the county level alerts that Xcel intends to rely on, is a high estimate. While the assumption that Xcel's full service territory would be impacted by a heat-triggered reconnection event is more reasonable, there will likely be times when, for example, Xcel's Moorhead territory differs from the Metro.

# C. Xcel Should Provide Updated, More Detailed Cost Estimates Prior to Implementing the Plans.

Because Xcel's cost estimates are admittedly "high-level" and due to the lack of information provided in its report and in response to the Department's information requests, the Commission should require further information from Xcel on the costs to both develop the plans and costs per event.

The Commission should require Xcel to provide a compliance filing within 30 days of its order that provides detailed cost estimates and budget proposals. Interested persons could then review the cost proposals and file an objection within 30 days of Xcel's filing.

At a minimum, Xcel's cost estimate filing should show the following for costs related to development:

- The cost estimates are reasonable.
- All costs are incremental to those that Xcel has estimated for 2025 and 2026 in its pending multi-year rate plan.
- A breakout of the portion of the costs that are necessitated by Xcel's proposed requirement that Xcel speak with the disconnected customer on the phone prior to reconnection.
- What portion of the costs are related to Xcel's claimed need to record and retain recordings of the conversations between customer service representatives and disconnected customers.

- Cost estimates for an automated or partially automated system for disconnected customers to confirm necessary safety steps without a live customer-service representative, including but not limited to:
  - Cost savings from the number of call recordings that would not need to be retained on a per recording, per event basis by Xcel's vendor;<sup>46</sup>
  - Cost savings from reduced number of staff (contract and internal) needed during events.

For per-event costs, Xcel's cost estimate filing should, at a minimum, show the following:

- The cost estimates are reasonable.
- An updated estimate of the number of disconnected customers, including an update using:
  - The number of disconnected customers in June through August, which are the months when a reconnection event is most likely to occur.
  - As there may be a decreasing likelihood of a premises being occupied the longer that electricity has been disconnected, Xcel should provide four estimates for the number of disconnected customers: (1) all disconnected customers; (2) all disconnected customers minus those that have been disconnected longer than 60 days; (2) all disconnected customers minus those that have been disconnected longer than longer than 90 days; and (3) all disconnected customers minus those that have been disconnected longer than 6 months.

<sup>&</sup>lt;sup>46</sup> See Attach. B (Xcel Response to DOC IR No. 002) ("[C]all retention will be charged per recording, per event, by our vendor").

- Cost estimates per event if disconnected customers are provided with an automated method to confirm any necessary safety steps have been taken.
- Per-event cost estimates for AQI Events that recognize the regional variation in AQI during triggering events across Xcel's service territory.

Xcel should also provide and support any costs for "reconnection costs per event" which currently has no estimate and little explanation.

Last, Xcel should show in its compliance filing all efforts to reduce plan costs by reducing the number of disconnected customers and to improve reconnection of customers who have been disconnected. Simply put, the less customers that are in disconnection status, the lower the costs to implement Xcel's reconnection plans.

#### RECOMMENDATIONS

The OAG supports the Commission's efforts to protect economically vulnerable customers from potential health impacts of facing a heat advisory or air-quality event without electricity. However, Xcel's current proposal falls short of sufficiently protecting customers, and the Commission should require modifications and further information.

Specifically, the OAG recommends that Xcel provide further information in reply on the following:

• Xcel should explain exactly when and why it changed positions on contacting customers via their preferred channel (i.e. phone call, email, or MyAccount) and determined that it would seek to require verbal confirmation of breaker shut-off prior to reconnection.

- Xcel should provide detailed analysis on its conclusions that it needs to "speak to a customer directly" rather than using another form of two-way communication, such as text, email, chat, MyAccount, or some other more automated process.
- Xcel should explain whether its current proposal for customer voice contact prior to reconnection is consistent with its other reconnection practices, including reconnections following a remote disconnection for non-payment and reestablishing electricity following a prolonged power outage.
- Xcel should clarify in reply comments how it derived a 19,000 average for its disconnected customer count, including but not limited to the following clarifications:
  - Xcel should clarify whether it used only residential customers in its 19,000 estimate or included other customers classes.
  - Xcel should explain whether its average double-counts customers that were disconnected more than once within 2024.
  - Xcel should break down its 19,000 estimate into the number of customers who have been disconnected for (1) longer than 30 days; (2) between 30 and 60 days; and (3) longer than 60 days.
- Xcel should provide detailed reasons why it claims to need 16 months to implement the plans following the Commission's written order. Particularly, Xcel should provide support for:
  - Xcel's estimate of the time needed to perform each item in the list provided in response to DOC IR No. 4 (Attachment C); and
  - $\circ\,$  Xcel's claim that none of the timeline items in DOC IR No. 4

#### (Attachment C) can be performed concurrently or overlap in any way.

The OAG recommends that the Commission modify Xcel's proposed plans, including the following changes:

- For air-quality-alert reconnections, customers should be reconnected when air quality is above 151 AQI in the customer's area.
- For both heat advisory and AQI triggered reconnections, the Commission should require Xcel to explore ways to contact customers using technology other than a telephone call.
- If Xcel cannot sufficiently explain why its 16-month implementation timeline is necessary, the Commission should order implementation on a more expeditious timeline.

Last, the OAG recommends the Commission *not* make a determination on the reasonableness of Xcel's preliminary cost estimates at this time. Instead, the Commission should require Xcel to make a compliance filing within 30-days of the Commission's order, with more developed and supported cost estimates, including the items listed in Section III.C above. The Commission should then allow interested persons to review the cost proposals and file an objection within 30 days of Xcel's filing.

Dated: May 9, 2025

Respectfully submitted,

KEITH ELLISON State of Minnesota Attorney General

#### /s/ Katherine Hinderlie

KATHERINE HINDERLIE Assistant Attorney General Atty. Reg. No. 0397325

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ATTORNEYS FOR MINNESOTA OFFICE OF THE ATTORNEY GENERAL— RESIDENTIAL UTILITIES DIVISION □ Not-Public Document – Not For Public Disclosure

# Dublic Document – Not-Public Data Has Been Excised

# Public Document

Xcel Energy	Information Request No.	9
Docket No.:	E002/M-25-27	
Response To:	Minnesota Department of Commerce	
Requestor:	John Kundert	
Date Received:	April 25, 2025	

# Question:

Topic: Heat Advisory/High Air Quality Index (AQI) Disconnection/Reconnection Plan

Reference(s): Part 3, 2024 SRSQ Annual Report, page 99, Implementation Plan, Safety Concerns

The Company notes: "customers who have experienced an involuntary disconnection would not be expecting power to be restored, which raises safety concerns". Xcel also expresses a similar concern regarding reconnection due to a high AQI event. In response, Xcel is proposing to contact each customer who have been disconnected individually to determine that customer is prepared for a reconnection of their service.

1. Has Xcel considered or evaluated any alternatives to address this safety-related risk other than contacting each disconnected customer individually?

a. If so, please identify the alternative.

# Response:

1. The Company intends to notify disconnected customers who are impacted by high AQI or extreme heat events of the opportunity to have service restored through a robotic call or email and in that way intends to minimize the process of reaching out to each customer individually, at the beginning of such events. The portion of the process that will require us to speak to customers directly is their acknowledgement that their breakers are off and that it is safe to reconnect their service. Due to the safety concerns around this portion of the activity, we have not determined an alternative to this process to verify that it is safe to reconnect a customer's electricity.

Preparer:	Diedra Howard
Title:	Director, Customer Policy and Regulatory
Department:	Customer Advocates
Telephone:	303-294-2295
Date:	May 5, 2025

# □ Not-Public Document – Not For Public Disclosure

# Dublic Document – Not-Public Data Has Been Excised

# Public Document

Information Request No.	2
E002/M-25-27	
Minnesota Department of Commerce	
John Kundert	
April 25, 2025	
	E002/M-25-27 Minnesota Department of Commerce John Kundert

# Question:

Topic: Heat Advisory/High Air Quality Index (AQI) Disconnection/Reconnection Plan Reference(s): 2025 SRSQ Annual Report Section 3, Estimated Costs and Timeline, Table 26, page 101

Table 26 lists 3 activities and an estimated cost associated two of the three activities.

- 1. Please provide all analytical support the Company used to develop the \$360,000 one-time cost and \$160,000 staffing cost per event listed in the table.
- 2. Please identify the costing methodology used to develop each of the costs.

# Response:

1. The one-time cost of \$360,000 was based on the following estimates:

Task	Cost
Development and deployment of two full call streams for call routing and modifications to the IVR to ensure customers are served correctly	\$180,000
Required outbound dial work	\$45,000
Build out the capacity for call recording retention for customer verification of safe reconnection per internal corporate requirement. This call retention will be charged per recording, per event, by our vendor and is also referenced below in per event charges for campaign set up, Avaya including the ability to record which requires additional licensing, contracts and internal resources to complete	\$60,000
Initial training for contact center staff to understand, process and manage this process.	\$25,000

Additional work related to the meter, AMI, forecast and notifications process work (Xcel Energy FTE labor costs, various application licenses, various application licenses etc.)	\$50,000
Total Cost	\$360,000

2. The staff cost of \$160,000 per event was based on the following estimates:

Task	Cost
Costs associated with a direct agent call to confirm it is safe to reconnect are:	\$143,000
(19,000 calls x \$7.50 per call based on staffing costs)	
Revised Inbound Cost (\$0.10 per call per customer with two calls: pre and post event)	<del>\$10,000</del> -\$3,800
Campaign set up costs	\$36.50 per event
Meter and field employee costs	\$7,000
Revised Total Cost	<del>\$163,000</del> \$157,000

In reviewing our cost estimate, we discovered that there was a calculation error for the estimate for the costs per inbound call. This was originally documented as \$10,000 per event. Upon review, it was determined that the estimated cost should have been reflected as \$3,800 instead of \$10,000 based upon the cost of incoming calls of \$0.10 per call, and presuming two outbound calls being delivered to the average of 19,000 customers in a disconnection status that would be expected to result in the potential for two calls to be returned to Xcel Energy agents when an event is triggered.. This lowered our original staffing cost per event from \$163,000 to \$157,000.

Preparer:	Diedra Howard
Title:	Director, Customer Policy and Regulatory
Department:	Customer Advocates
Telephone:	303-294-2295
Date:	May 5, 2025

#### □ Not-Public Document – Not For Public Disclosure

# Dublic Document – Not-Public Data Has Been Excised

# Public Document

Information Request No.	4
E002/M-25-27	
Minnesota Department of Commerce	
John Kundert	
April 25, 2025	
	E002/M-25-27 Minnesota Department of Commerce John Kundert

# Question:

Topic: Heat Advisory/High Air Quality Index (AQI) Disconnection/Reconnection Plan

Reference(s): Part 3, 2024 SRSQ Annual Report, page 101, Timeline for System Enhancements

Please provide support for the Company's 72 week estimate for the implementation of the two programs once an Order is issued.

# Response:

Implementation of these programs will require a major upgrade to the Company's IVR system in order to collect the necessary information for

disconnection/reconnection during a high AQI or extreme heat event. To appropriately design and fund the upgrade a technical services team will need to design a process to integrate the IVR system with the customer data and allow certain overrides to occur for disconnection states and call flows. Each of the impacted call flows will require design, testing, deployment and integrations with other platforms (with each of these phases taking time – see attachment). Failing to follow this process would put customers at risk of not having appropriate safeguards in place for reconnection, being left in a disconnected/connected state during events or missing the opportunity to gather or gain event information appropriately. Implementing these programs without these upgrades would overload the call centers with contacts – increasing wait times and costs for all customers.

Estimated Timeline Below:

- 12 weeks for viable IVR Upgrade Deployment
- 30 weeks of deployments for critical fixes in the queue
- 1 week general
- 3-4 weeks funding approval
- Four weeks business development
- Five weeks Avaya integration

- Six weeks vendor need (recording, review, etc.)
- Three weeks User Acceptance Testing
- Four weeks code freeze
- One week Deployment
- Two weeks contingency

Preparer:	Diedra Howard
Title:	Director, Customer Policy and Regulatory
Department:	Customer Advocates
Telephone:	303-294-2295
Date:	May 5, 2025

□ Not-Public Document – Not For Public Disclosure

# Dublic Document – Not-Public Data Has Been Excised

# Public Document

Xcel Energy	Information Request No.	3
Docket No.:	E002/M-25-27	
Response To:	Minnesota Department of Commerce	
Requestor:	John Kundert	
Date Received:	April 25, 2025	

# Question:

Topic: Heat Advisory/High Air Quality Index (AQI) Disconnection/Reconnection Plan Reference(s): 2025 SRSQ Annual Report Section 3, Estimated Costs and Timeline,

Reconnection Cost Estimate, Table 26, page 101

In a note associated with Table 26, the Company notes that estimating the Reconnection cost per event for each program is difficult in that the Company has never created a framework for this sort of procedure within its existing systems.

- 1. List the existing systems that would need to be modified to accommodate each of the two programs' disconnection/reconnection requirements.
- 2. Provide an estimate of the extent each of those systems would need to be modified.
- 3. Given the additional information the Company has gathered regarding the costs and benefits associated with the Heat Advisory/High AQI Reconnection/Disconnection programs over the past few months, has Xcel identified a more efficient approach or pathway that might provide a similar level of benefits to the customers disconnected for nonpayment but result in lower costs for the Company and its ratepayers?

a. If so, please provide a description of the more efficient approach.

b. If not, please provide an estimate of the resources necessary to provide this review.

# Response:

1. The systems that would require modification to accommodate the extreme heat and/or high AQI events include the:

IVR (Interactive Voice Response System),

Call Routing Software,

AMI Meter(s) Response and

Online Account Management (OAM).

# 2. The estimate of work that is required to modify each system is as follows: **IVR and Call routing Software Modifications**

# Initial Costs (Call Routing/CC)

- \$180,000 in costs for the development and deployment of two full call streams and adjustments to several other areas within the IVR to ensure customers are served correctly.
- \$45,000 in additional costs for the required outbound dial work
- \$60,000 to build the capacity for call recording retention. This is necessary for each customer who verifies reconnection per internal requirements. This is currently charged per recording with our vendor (Avaya) and this would be a new scope for that product requiring additional licensing, contracts and internal resources to complete.
- \$25,000 in training for contact center staff to understand, process and manage this process.

# AMI Meter Response Work

• \$50,000 in work related to the meter, AMI, forecast and notifications process work (Xcel Energy FTE labor costs, various application licenses).

# **OAM Modifications**

While we know that modifications to the OAM system would be required to allow customers to request a reconnection through this channel however, estimated costs for these modifications have yet to be determined.

3. a. The Company believes that providing customers with medical protection through our Life Support program is the most efficient way to protect sensitive customers from excessive heat and/or air quality concerns. Once customers contact us for this designation, it also allows the Personal Accounts team to work very closely with them in the event they have other challenges, including a need for energy assistance or additional resources for other services. The Company has added additional touchpoints with customers who are struggling with bill payment and now include educational information about medical protections that are available to assist them.

Preparer:	Diedra Howard
Title:	Director, Customer Policy and Regulatory
Department:	Customer Advocates
Telephone:	303-294-2295
Date:	May 5, 2025

□ Not-Public Document – Not For Public Disclosure

# Dublic Document – Not-Public Data Has Been Excised

# Public Document

Information Request No.	7
E002/M-25-27	
Minnesota Department of Commerce	
John Kundert	
April 25, 2025	
	E002/M-25-27 Minnesota Department of Commerce John Kundert

## Question:

Topic: Heat Advisory/High Air Quality Index (AQI) Disconnection/Reconnection Plan

Reference(s): Part 3, 2024 SRSQ Annual Report, page 101, Assumptions

1. Department staff developed an estimate of the annual incremental costs associated with each program the Company has identified to date. (See Attachment 1 to this information request).

a. First-year costs for the Heat Advisory and High AQI programs respectively are \$980,000. Combining the costs of the two programs the total first year costs are \$1,960,000.

b. Ongoing annual costs for the Heat Advisory and High AQI programs respectively are \$800,000. Combining the costs of the two programs the total first year costs are \$1,600,000.

c. Are the Department's estimates for the two program's first year and ongoing costs in the accompanying table similar and consistent to those Xcel has calculated for these same two programs?

d. Has the Company identified any additional costs, other than the reconnection first-year and on-going costs and incremental bad debt costs resulting from the two programs? i. If so, please provide a description of the cost(s) identified and the first year and annual on-going costs.

# Response:

c. The cost estimates provided here by the Department are consistent with the first year and ongoing cost estimates provided by the Company for these two programs. The Company points out that when we originally created our estimates, we assumed five "very high AQI" reconnection days, when in fact those five days related to "high AQI" days. Additionally, the cost of inbound calls has been recalculated from \$10,000 to \$3,800 per event.

d. The Company has not identified any additional costs associated with these two programs. We acknowledge that there is much work to be accomplished to facilitate these requests and as such, there may be additional costs or potential savings that are identified in the course of development of these programs.

Preparer:	Diedra Howard
Title:	Director, Customer Policy and Regulatory
Department:	Customer Advocates
Telephone:	303-294-2295
Date:	May 5, 2025

#### □ Not-Public Document – Not For Public Disclosure

# Dublic Document – Not-Public Data Has Been Excised

# **Public Document**

Information Request No.	6
E002/M-25-27	
Minnesota Department of Commerce	
John Kundert	
April 25, 2025	
	E002/M-25-27 Minnesota Department of Commerce John Kundert

## Question:

Topic: Heat Advisory/High Air Quality Index (AQI) Disconnection/Reconnection Plan

Reference(s): Part 3, 2024 SRSQ Annual Report, page 101, Assumptions

1. Provide all analytical support for the Company's assumption the expected average number of disconnected customers per Heat Advisory/High AQI event is 19,000.

## Response:

1. The estimate of 19,000 disconnected customers is based upon the average number of Xcel Energy customers that were in a disconnected status at any given time in 2024. We recognize that the number of customers affected by a heat or high AQI event could be higher or lower than the 19,000 used as the foundation for our estimates.

Preparer:	Diedra Howard
Title:	Director, Customer Policy and
Department:	Customer Advocates
Telephone:	303-294-2295
Date:	May 5, 2025

Docket No. E-002/M-25-27 OAG Initial Comments Attachment G

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		Utility M	onthly Report									
lame of Utility			×	cel Energy		F	lighlight Indicates	Data Required p	er Statutes 216B.	.091 and 216B.096	;	
eporting Month/Year				Dec-24								
	•				All Utilities					•		
		Α	В	с	D	E	F	G	Н	I	J	к
			Total Revenue			Average Past Due			Cumulative			Total
			from Sales to	# Past Due	Total Dollars Past	Dollar Amount Per	Average		LIHEAP	Total Dollars	Total Dollars	Residentia
		# Residential	Residential	Residential	Due Residential	Past Due	Monthly	New LIHEAP	Customers	Received From	Received from	Write-Offs of
	Utility	Customers	Customers	Customers	Customers	Customers	Residential Bill	Customers	(year to date)	LIHEAP	other sources	to uncollect
lan-24	Xcel Energy	1,330,637	\$183,668,865	188,761	\$103,335,406	\$547	\$138	9,811	35,344	\$3,236,037	\$185,401	\$2,949,49
	Xcel Energy	1,332,277	\$164,776,665	186,100	\$105,299,738	\$566	\$124	6,249	41,593		\$200,057	\$2,302,37
	Xcel Energy	1,333,223	. , ,	184,196	\$107,120,482	\$582	\$111	5,996	47,589		\$222,077	\$3,673,81
	Xcel Energy	1,335,255	\$141,751,922	171,361	\$101,207,970	\$591	\$106	5,485	53,074	\$3,497,840	\$148,459	\$2,748,24
	Xcel Energy		\$115,258,162	171,223	\$89,543,906	\$523	\$86	5,217	58,291	\$3,676,562	\$370,145	\$2,723,62
	Xcel Energy		\$123,708,800	167,706	\$79,129,523	\$472	\$92	2,862	61,153	\$1,779,959	\$393,825	\$2,199,99
	Xcel Energy			163,080	\$77,225,368	\$474	\$127	609	61,762	\$370,425	\$440,712	\$2,611,91
	Xcel Energy		\$184,462,279	186,205	\$79,578,991	\$427	\$138	1	61,763	\$6,427	\$499,272	\$1,358,11
	Xcel Energy		\$153,501,955	179,800	\$81,105,406	\$451	\$114	-	61,763	\$11,162	\$468,622	\$1,268,02
	Xcel Energy	1,344,817	\$139,326,971	193,342	\$85,305,525	\$441	\$104	-	61,763	\$0	\$407,840	\$1,174,52
	Xcel Energy	1,346,254	\$106,354,210	175,553	\$81,552,423	\$465	\$79	22,505	22,505	\$7,763,843	\$286,595	\$1,168,23
	Xcel Energy	1,347,947	\$173,950,711	174,794	\$79,415,224	\$454	\$129	7,501	30,006	\$4,220,109	\$256,858	\$948,640
Dec-24	Acci Lincigy		+=-=,===,===		+	7.5.	+	.,		+ ')===)===	+	+=,=
					All Utilities O		•		6	-	U	v
		L	м	N	0	Р	Q	R	S	т	U	v
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		Customers	# Residential			Customers	service by	# Residential	Total #	Customers	Customers	Custome
		Receiving	Customers	# Damata	# Downsto	restored to service w/in 24 hours	entering a	Customers	Residential	Remaining	Remaining	Remainin
	1.14:11:4.	Disconnect	Involuntarily	# Remote	# Remote	(SRSQ)	payment plan (SRSQ)	restored at	Customers	Disconnected,	Disconnected,	Disconnect
1 24	Utility	Notices	Disconnected	Disconnections	Reconnections		1 1	same address	Reconnected	1-30 days	31-60 days	60+ days
	Xcel Energy	71,005	2,074	n/a	n/a	1,104	1,153	1,713	1,713	224 156	37 84	
	Xcel Energy	71,622	1,380	968	942	677	764	1,260	1,260			
	Xcel Energy	70,339	1,355	1,022	895	641	710	1,202	1,202	150	52	
	Xcel Energy	60,885	2,565	2,134	1,784	1,301	1,300	2,117	2,117	325	53	
	Xcel Energy	62,973 49,597	10,086 7,818	8,605 7,021	7,204 6,200		5,249 4,144	8,081 6,659	8,081 6,659	1,288 887	- 591	
	Xcel Energy	49,597	9,024	8,320	7,223		4,144	7,740	7,740			1
	Xcel Energy									1,053	494	
-	Xcel Energy	59,237	8,472	7,973	7,358		3,914	7,828	7,828	771	443	
	Xcel Energy	62,263	2,209	2,089	2,178		928	2,351	2,351	120	292	7
	Xcel Energy	66,412	3,553	3,486	3,067		1,740	3,325	3,325	323	65	e
	Xcel Energy	58,470	2,402	2,317	2,179		1,034	2,370	2,370	205	111	4
Dec-24	Xcel Energy	50,158	1,611	1,555	1,442	941	720	1,526	1,526	88	84	4

					All Utilities	, October - April					
			# Customers Involuntarily	# Customers Involuntarily	# Customers Involuntarily	# Customers Involuntarily	# Customers Involuntarily Disconnected, who	# Customers Involuntarily Disconnected, who	# Customers Involuntarily Disconnected, who	# Customers Involuntarily Disconnected, who	
	# Customers	# Customers	Disconnected, who	Disconnected, who	Disconnected, who	Disconnected, who	did not seek	did not seek	did not seek	did not seek	
	Seeking Cold	Granted Cold	sought protection	sought protection	sought protection	sought protection	protection	protection	protection	protection	Total
	Weather Rule	Weather Rule	heat affected	non-heat affected	heat affected	non-heat affected	heat affected	non-heat affected	heat affected	non-heat affected	Customers
	Protections	Protections	(gas)	(gas)	(electric)	(electric)	(gas)	(gas)	(electric)	(electric)	Disconnected
Jan-24	15,866	15,866	0	0	0	0	0	0	0	2,074	2,074
Feb-24	13,725	13,725	0	0	0	0	0	0	0	1,380	1,380
Mar-24	15,905	15,905	0	0	0	0	0	0	0	1,355	1,355
Apr-24	22,204	22,204	0	0	0	0	0	0	0	2,565	2,565
May-24	n/a	n/a	0	0	0	0	228	0	9,096	762	10,086
Jun-24	n/a	n/a	0	0	0	0	135	0	6,909	774	7,818
Jul-24	n/a	n/a	0	0	0	0	151	1	7,580	1,292	9,024
Aug-24	n/a	n/a	0	0	0	0	96	0	7,026	1,350	8,472
Sep-24	n/a	n/a	0	0	0	0	27	0	1,798	384	2,209
Oct-24	18,409	18,409	0	0	0	0	0	0	0	3,553	3,553
Nov-24	17,979	17,979	0	0	0	0	0	0	0	2,402	2,402
Dec-24	13,971	13,971	0	0	0	0	0	0	0	1,611	1,611
							# customers	# customers	# customers		
		# of Payment				# customers	disconnected 24	disconnected 24	disconnected 24		
	# of Appeal	Plan (PP)			# of customers with	disconnected 24	hours or more	hours or more	hours or more	# accounts	Total #
	Notices sent to	requests	# of mutally agreed	# reconnect request	current payment	hours or more	non-heat affected	heat affected	non-heat affected	reconnected within	Customers
	customers	received	PP	appeals withdrawn	plans	heat affected (gas)	(gas)	(electric)	(electric)	24 hrs	Reconnected
Jan-24	3	15,866	15,863	0	28,062	0	0	0	970	1,104	1,713
Feb-24	1	13,725	13,724	0	28,051	0	0	0	703	677	1,260
Mar-24	0	15,905	15,905	0	27,745	0	0	0	714	641	1,202
Apr-24	1	22,204	22,203	0	33,431	0	0	0	1,264	1,301	2,117
May-24	0	0	0	0	40,242	217	0	4,237	405	5,142	8,081
Jun-24	0	0	0	0	40,236	132	0	2,816	347	4,494	6,659
Jul-24	0	0	0	0	39,133	125	1	2,871	546	5,457	7,740
Aug-24	0	0	0	0	39,952	91	0	2,563	545	5,271	7,828
Sep-24	0	0	0	0	38,796	26	0	586	154	1,440	2,351
Oct-24	1	18,409	18,408	0	36,627	0	0	0	1,444	2,109	3,325
Nov-24	0	17,979	17,979	0	32,461	0	0	0	960	1,442	2,370
Dec-24	0	13,971	13,971	0	28,185	0	0	0	670	941	1,526

File this form separately each week as required. Then, provide all weeks for a given month when making monthly filing.

# Utility Heating Service Customers\*

	All Utilit	ies (starting Septer	nber 15)		
				# Customers	
		Total #	# Customers	Involuntarily	
		Customers	Involuntarily	Disconnected for	
		Currently	Disconnected for non-	non-payment	# Customers
		Disconnected for	payment This Week,	This Week,	<b>Reconnected</b> This
Week ending date	Utility	non-payment	Natural Gas	Electric	Week**
*9/15/2024 actual date	Xcel Energy	1,144	0	0	
*10/1/2024 actual date	Xcel Energy	1,308	0	0	
10/5/2024	Xcel Energy	1,308	0	0	177
10/12/2024	Xcel Energy	1,146	0	0	187
10/19/2024	Xcel Energy	960	0	0	111
10/26/2024	Xcel Energy	811	0	0	64
11/2/2024	Xcel Energy	664	0	0	45
11/9/2024	Xcel Energy	587	0	0	32
11/16/2024	Xcel Energy	521	0	0	29
11/23/2024	Xcel Energy	482	0	0	70
11/30/2024	Xcel Energy	396	0	0	27
12/7/2024	Xcel Energy	359	0	0	18
12/14/2024	Xcel Energy	331	0	0	14
12/21/2024	Xcel Energy	300	0	0	2
12/28/2024	Xcel Energy	294	0	0	6
1/4/2025	Xcel Energy	285	0	0	1
1/11/2025	Xcel Energy				
1/18/2025	Xcel Energy				
1/25/2025	Xcel Energy				
2/1/2025	Xcel Energy				
2/8/2025	Xcel Energy				
2/15/2025	Xcel Energy				
2/22/2025	Xcel Energy				
3/1/2025	Xcel Energy				

\*whose service is disconnected or remains disconnected for nonpayment as of September 15 and October 1. If customers remain disconnected on October 1, a utility must file a report each week between October 15 and the end of the cold weather period; Minn Stat. 216B.096, subd 11. HF 2310, Art, 12, Section 10 (Starts on pg 330).

\*\*The utility may discontinue weekly reporting if the number of utility heating service customers that are or remain disconnected reaches zero before the end of the cold weather

period.

						All Utilities							
Utility	Total Res. Customers (12 month avg)	Total Residential Customer Disconnects	# LIHEAP Customers	# LIHEAP Disconnects	Disconnect Rate (%), Total Residential	Disconnect Rate (%), LIHEAP	# Customers Restored within 24 hours	# Customers Restored with Payment Plan	# Customers Disconnected 30+ days	# Customers Seeking CWR Protection	# Customers Granted CWR Protection	# Customers Requesting Medical Acct Status	# Customers Granted Medical Acct Status
2015 Xcel Energy	1,196,104	26,394	59,861	2735	2.2%	4.6%	11,556	1,201	3,731	152,992	152,992	3,333	2,557
2016 Xcel Energy	1,207,795	20,584	58,810	2,308	1.7%	3.9%	7,698	1,512	2,717	130,052	130,052	3,427	2,713
2017 Xcel Energy	1,219,835	19,211	55,377	2,522	1.6%	4.6%	6,587	1,254	2,418	140,943	140,943	3,150	2,388
2018 Xcel Energy	1,238,942	17,310	55,223	3,191	1.4%	5.8%	6,486	1,469	2,290	115,472	115,472	2,818	2,267
2019 Xcel Energy	1,253,679	16,693	55,521	3,939	1.3%	7.1%	6,318	4,250	2,474	78,271	78,271	2,420	2,196
2020 Xcel Energy	1,271,372	2,820	48,973	846	0.2%	1.7%	1,610	969	325	58,225	58,225	986	935
2021 Xcel Energy	1,292,627	6,292	47,924	201	0.5%	0.4%	3,466	3,889	1,761	80,143	80,143	1,084	971
2022 Xcel Energy	1,301,219	8,538	56,254	759	0.7%	1.3%	3,197	5,533	3,467	126,910	126,910	1,222	1,079
2023 Xcel Energy	1,319,148	24,722	57,270	2,252	1.9%	3.9%	11,126	12,248	5,417	132,831	132,831	2,193	1,772
2024 Xcel Energy	1,339,161	52,549	59,194	5,472	3.9%	9.2%	30,019	26,040	6,341	118,059	118,059	2,501	2,012
beyond													

\*Figures in red from previous years have been updated as part of a 2024 data review which were identified in conjunction with:

Gas Service Quality Docket G00/M-24-31 - Errata filed on Aug 30, 2024

Electric Service Quality Docket E0002/24-27 - Requests for Medical Account Status discrepancies noted by CUB & ECC. In its Oct 25, 2024 Reply Comments, the Company committed to making the corrections to this report.

			Average Number
	# of customers		of Months in
	with payment	Average Monthly	Current Payment
	arrangements	Payment Amount	Agreements
Jan-24	28,062	\$187.35	6.50
Feb-24	28,051	\$191.09	6.44
Mar-24	27,745	\$184.16	6.70
Apr-24	33,431	\$196.49	6.90
May-24	40,242	\$221.92	7.11
Jun-24	40,236	\$230.08	7.18
Jul-24	39,133	\$229.85	7.07
Aug-24	39,952	\$222.06	6.86
Sep-24	38,796	\$212.57	6.59
Oct-24	36,627	\$200.40	6.39
Nov-24	32,461	\$185.98	6.13
Dec-24	28,185	\$187.49	6.00

	Service Deposit	If yes, Service	Reconnection	If yes, Reconnectior	Down Payment Required to	If yes, Down Payment		If yes,
	Charged to	Deposit Amount,	Fee Charged to	Fee Amount,	restore service to start a	Amount, as Percent of Past	Interest/	Interest/Penalties/Fee
	Restore Service,	Average per	Restore Service,	Average per	payment arrangement,	Due Balance or Average	Penalties/Fees, Explain	Amount, Average per
	Explain Practice	Customer	Explain Practice	Customer	Explain Practice	Amount	Practice	Customer
Jan-24	N		Y	\$15.66	Y	50% of shutoff amount	Y	\$9.57
Feb-24	N		Y	\$20.48	Y	50% of shutoff amount	Y	\$9.49
Mar-24	N		Y	\$20.03	Y	50% of shutoff amount	Y	\$10.50
Apr-24	N		Y	\$17.43	Y	50% of shutoff amount	Y	\$9.52
May-24	N		Y	\$16.72	Y	50% of shutoff amount	Y	\$8.11
Jun-24	N		Y	\$15.11	Y	50% of shutoff amount	Y	\$7.64
Jul-24	N		Y	\$15.06	Y	50% of shutoff amount	Y	\$6.64
Aug-24	N		Y	\$14.70	Y	50% of shutoff amount	Y	\$7.19
Sep-24	N		Y	\$14.70	Y	50% of shutoff amount	Y	\$6.08
Oct-24	N		Y	\$14.54	Y	50% of shutoff amount	Y	\$6.96
Nov-24	N		Y	\$14.44	Y	50% of shutoff amount	Y	\$7.54
Dec-24	N		Y	\$14.26	Y	50% of shutoff amount	Y	\$8.72

\*Practice is defined as when an action would be taken.

	Electric Utilities Only			
	# Customers	# Customers	# Medical	# Customers
	<b>Requesting Medical</b>	Granted Medical	Accounts	Denied Medical
	Status	Status	Renewed	Status
Jan-24	216	180	1,968	36
Feb-24	123	94	1,896	29
Mar-24	87	70	1,873	17
Apr-24	103	83	1,924	20
May-24	257	237	2,065	20
Jun-24	228	195	2,291	33
Jul-24	234	192	2,183	42
Aug-24	282	224	2,437	58
Sep-24	198	138	2,384	60
Oct-24	137	101	2,265	35
Nov-24	140	97	2,061	43
Dec-24	496	401	2,147	95

Total Number of Disconnected Customers			
Data	December - June	Data July- No	vember
Filed July 2024		Filed Decemb	er 2024
Zip Code	Count	Zip Code	Count
55106	1,161	55106	864
55117	834	55429	756
55104	770	55117	686
55429	734	55428	683
55119	729	55104	623
55428	641	55119	609
55112	581	55411	595
55411	564	55112	564
55403	521	55432	491
55443	505	55443	487
55432	496	55430	482
55430	489	55343	439
55113	476	55423	403
55118	453	55404	398
55423	423	55118	382
55130	403	55403	379
56301	388	55113	375
55343	379	55412	364
55412	375	55416	344
55421	375	55421	344
55414	354	55125	341
55102	336	55414	314
55416	332	55987	312
55125	321	55422	307
55075	320	55408	296
55404	317	55130	283
55422	292	55103	282
55418	279	55427	280
55107	274	55021	277
55426	273	55102	269
55103	269	55016	260
55128	258	55075	259
55116	256	55128	258
55109	255	55426	251
55425	254	56001	250
55016	253	55109	248
56304	240	55425	248
55427	233	55110	245
55110	227	56301	240
55405	226	55107	236
56303	226	55418	236
55420	225	55405	230

#### **Total Number of Disconnected Customers**

55441	225	55420	226
55419	221	55441	225
55408	215	55116	215
55305	208	55337	214
55433	199	55419	210
55077	198	55025	208
55105	196	55305	205
55344	191	55077	198
55076	189	55129	195
55337	188	55066	191
55369	177	55433	188
55126	174	55126	174
55406	168	55076	172
55417	166	55369	171
55129	164	55437	171
55033	161	56304	171
55082	161	55082	159
55431	159	55344	159
55444	147	55435	154
55987	146	55105	152
55437	141	55444	151
55401	135	55033	142
55435	134	56303	141
55066	125	55401	139
55438	125	55417	135
55025	124	55431	137
55447	119	55057	132
56387	119	55438	120
55413	118	55447	122
55108	107	55413	119
55316	107	55038	115
55114	104	55316	110
55445	102	55406	98
55101	99	56379	98
55415	99	55445	97
	99	55101	97
56560			
55127	96	55311	93
55409	95	55014	92
55311	90	55372	88
56379	85	55409	87
55044	84	55108	86
55042	83	55024	83
55071	83	55127	78
55021	81	55044	76
55038	73	55068	76
55068	73	55042	74
55014	72	55114	73

56377	70	55345	71
55121	69	55415	70
55407	69	55121	69
55345	66	55055	66
55024	61	55364	66
55454	58	56377	65
55364	57	56003	64
55410	57	56560	62
55055	54	55407	59
55122	54	55378	58
55378	54	55122	57
55436	53	55071	56
55057	50	55410	55
55347	49	55362	54
55446	49	55446	53
55449	48	55436	49
55079	40	55092	49
55346	44	55032	48
		55045	47
55115	40	56387	47
55045 55391	39 38	55331	40
55442	38	55454	44
55013	37	55301	42
55331	37	55376	42
55317	35	55302	41
55092	33	55352	41
56164	32	55387	41
55074	31	55115	40
56529	31	55449	39
55362	30	56529	39
55387	30	56011	38
56721	29	55346	37
55376	27	55388	37
55301	26	55079	36
55041	23	55442	36
56401	23	55981	36
55424	22	55347	35
56472	20	55439	31
55374	19	55309	30
55439	19	55334	28
56367	19	55391	27
55120	18	55317	26
56001	18	55947	25
56329	18	55992	25
55384	17	55009	24
55992	17	55041	23
55434	16	55074	23

55981	16	55384	21
55363	15	55434	21
55368	14	55920	21
55388	14	56096	21
55963	14	55395	19
56172	13	56721	19
55315	12	55354	18
55395	12	55397	18
55927	12	55374	17
55940	12	55963	17
56468	12	56024	17
55043	11	55120	16
55354	11	55424	16
55359	11	55315	15
56374	11	55375	15
55084	10	56472	15
55356	10	55056	15
55373	10	55073	14
55397	10	56547	14
55402	10	55356	13
56320	10	55368	13
56473	10	55402	13
56514	10	55927	13
55090	9	55985	13
55302	9	56401	13
55309	9	55003	12
55357	9	55043	12
55959	9	55373	12
56369	9	55959	12
56474	9	55012	11
55003	8	55046	11
55111	8	55353	11
55328	8	56044	11
55941	8	55084	10
56425	8	55308	10
56547	8	55322	10
55012	7	55381	10
55339	7	55342	9
55381	7	55386	9
55386	7	55940	9
56115	7	56288	9
56144	7	55339	8
56175	7	55359	8
55001	6	55390	8
55321	6	55941	8
55322	6	55969	8
55349	6	55052	7

55366	6	55319	7
55947	6	55349	7
56373	6	55363	7
55009	5	55385	7
55054	5	55924	7
55124	5	55955	7
55340	5	55956	7
55390	5	55983	7
55956	5	56164	7
55985	5	56222	7
55991	5	56320	7
56003	5	55019	6
55019	4	55027	6
55047	4	55047	6
55049	4	55111	6
55056	4	55335	6
55150	4	56172	6
55341	4	56312	6
55375	4	56329	6
55955	4	56468	6
56288	4	55089	5
56465	4	55090	5
56580	4	55314	5
56585	4	55328	5
55060	3	55360	5
55073	3	55367	5
55342	3	55389	5
55360	3	56074	5
55389	3	56175	5
55983	3	56316	5
56265	3	56334	5
56284		56381	
	3	56442	5
56340			
56381	3	56474	5
56442	3	55001	4
55320	2	55124	4
55358	2	55341	4
55367	2	55925	4
55910	2	55991	4
55925	2	56228	4
55945	2	56273	4
55969	2	56425	4
56093	2	56473	4
56151	2	55018	3
56251	2	55031	3
56334	2	55085	3
56360	2	55304	3

56594	2	55320	3
55052	1	55321	3
55053	1	55329	3
55313	1	55338	3
55319	1	55340	3
55324	1	55358	3
55325	1	55945	3
55370	1	55982	3
55372	1	56017	3
55382	1	56054	3
55924	1	56072	3
55943	1	56141	3
55957	1	56144	3
55982	1	56209	3
56096	1	56265	3
56123	1	56362	3
56273	1	56368	3
56285	1	56465	3
56307	1	55026	2
56310	1	55054	2
56335	1	55065	2
56448	1	55087	2
56536	1	55327	2
		55910	2

55358         3           55945         3           56017         3           56054         3           56072         3           56141         3           56144         3           56209         3           56362         3           56362         3           56362         3           56368         3           56465         3           55054         2           55065         2           5507         2           55087         2           55087         2           55087         2           56063         2           56063         2           56063         2           56307         2           56360         2           56374         2           56374         2           56374         2           56360         2           56374         2           56360         2           56374         2           55053         1           55050         1           55150	55340	3
5598235601735605435607235614135614435620935626535636235636835646535026250542505525055250565250652506525066250632506325063256063256310256356256360256374256374255051550111550515505155051550515505155051550515505155051550515505155051550515505155051550515505155051550615505155051550615536155361553615537153821559571559681	55358	3
56017         3           56054         3           56072         3           56141         3           56209         3           56362         3           56362         3           56368         3           56465         3           55026         2           55054         2           55055         2           55065         2           5507         2           55087         2           55087         2           55087         2           55087         2           56063         2           56063         2           5607         2           56360         2           56374         2           56374         2           56374         2      55011         1           55053         1           55053         1           55053         1           55053         1           55053         1           55053         1           55053         1           55053         1<	55945	3
56054         3           56072         3           56141         3           56209         3           56362         3           56362         3           56362         3           56362         3           56368         3           56465         3           55026         2           55054         2           55055         2           55087         2           55087         2           55087         2           55087         2           56063         2           56063         2           56063         2           56370         2           56360         2           56374         2           56374         2           56374         2           56374         2           5605         1           5505         1           5505         1           5505         1           5505         1           5505         1           5505         1           55050	55982	3
56072         3           56141         3           56209         3           56265         3           56362         3           56368         3           56465         3           55026         2           55054         2           55055         2           55065         2           55054         2           55057         2           55087         2           55087         2           55087         2           55087         2           55087         2           56063         2           5607         2           56370         2           56360         2           56370         2           56360         2           56374         2           5605         1           55053         1           55053         1           55053         1           55053         1           55053         1           55053         1           55366         1           55370	56017	3
561413561443562093563623563623563683564653550262550542550652550725507255087255010256063256063256063256307256307256310256360256360256374256374256051550111550315503155042563742550515501115503155031550315503155031550315536155361553715536615537155366155371553661553701553701553701559571559681559571559681	56054	3
561443562093562653563623563683564653550262550542550652550872550872550872550872560632560632560632560632563072563072563602563602563742563742563742550531550111550531550531550531550541550531550531550531550541550551550531550531550541550551550551550551550551550551550551550551550561553701553661553701553701553701559571559571559681	56072	3
5620935626535636235636835646535502625505425506525508725508725508725508725501025606325606325606325606325631025635625636025637425637425605155011155053155053155053155053155054155053155053155066155071553701553701553701553701553701553701553701553701553701553701553701553701553701559571559681	56141	3
56265         3           56362         3           56368         3           56465         3           55026         2           55054         2           55065         2           55087         2           55087         2           55087         2           55087         2           55087         2           55087         2           56063         2           56063         2           56063         2           56307         2           56310         2           56356         2           56360         2           56374         2           56374         2           55011         1           55005         1           55005         1           55011         1           55020         1           55088         1           55150         1           55370         1           55382         1           55382         1           55957         1           55968	56144	3
5636235636835646535502625505425506525508725532725591025606325606325636625637025636025636025636025637425637425637425651425505155051550515506315505315515015536615536615507155081553661553701553821553821559681	56209	3
563683564652550262550542550652550872553272559102560212560632563662563702563602563602563602563742563742565142550051550111550201550331550361551501553661553661553701553661553701553701553821559681559681	56265	3
56465355026255054255065255087255327255910256021256063256366256370256356256360256374256051550111550531550531550881553661553771553661553661553701553821553821559571559681	56362	3
5502625505425506525508725532725591025602125606325626625630725631025635625636025637425605142550051550111550531550531550531550531550531550531550531550531550531550531550531550531550531550531550531553661553701553701553701553821559571559681	56368	3
550542550652550872553272559102560212560632562662563072563102563562563602563742550111550111550201550531550531550531550531553661553701553701553701553821559571559571559681	56465	3
55065255087255327255910256021256063256266256307256310256356256360256374256051550111550531550531550531553661553701553701553701553701553701553821559571559571559681	55026	2
550872553272559102560212560632562662563072563102563562563602563742565142550051550111550531550881553661553661553661553701553701553821559571559571559681	55054	2
553272559102560212560632562662563072563102563562563602563742565142550051550531550531550531553661553661553701553661553701553821559571559571559681	55065	2
559102560212560632562662563072563102563562563602563742565142550051550111550201550531551501553661553661553771553661553701553701553701553821559571559681	55087	2
560212560632562662563072563102563562563602563742565142550051550111550531550531553661553571553661553701553701553701553701553821559571559681	55327	2
560632562662563072563102563562563602563742565142550051550111550201550531550881553661553571553661553701553821559571559681	55910	2
562662563072563102563562563602563742565142550051550111550201550531550881553661553661553661553701553821559571559681	56021	2
563072563102563562563602563742565142550051550111550201550531550881553661553571553661553821559571559681	56063	2
563102563562563602563742565142550051550111550201550531550881551501553661553661553701553821559571559681	56266	2
563562563602563742565142550051550111550201550531550881553661553661553701553821559571559681	56307	2
563602563742565142550051550111550201550531550881553661553661553701553821559571559681	56310	2
563742565142550051550111550201550531550881551501553661553661553701553821559571559681	56356	2
565142550051550111550201550531550881551501553361553661553701553821559571559681	56360	2
550051550111550201550531550881551501553661553701553821559571559681	56374	2
550111550201550531550881551501553361553571553661553701553821559571559681	56514	2
550201550531550881551501553361553571553661553701553821559571559681	55005	1
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