

**STATE OF MINNESOTA  
BEFORE THE PUBLIC UTILITIES COMMISSION**

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

In the Matter of a Peak Time Rebate Program  
for Northern States Power Co. d/b/a Xcel  
Energy to Further the Commission's  
Advanced Rate Design Efforts

DOCKET NO. E-002/M-24-432

**INITIAL 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 initial comments in response to Xcel's March 17, 2025 proposal for a peak-time-rebate program. Over the past five years, Xcel has made substantial investments to modernize the grid and, in particular, to develop its capacity to closely track customers' energy usage through advanced metering infrastructure. Xcel used these metering capabilities, and the advanced rates they enable, as major selling points for its grid-modernization investments; customers have already begun to pay for these investments and are entitled to receive their benefits. Xcel's peak-time-rebate proposal is an important step toward unlocking the system and customer-bill savings made possible through advanced metering.

For the reasons explained below, the Commission should approve Xcel's peak-time-rebate proposal as a limited-term pilot program with certain modifications that will help maximize the program's effectiveness. Xcel should also track and report on certain metrics that will allow the Commission to assess the pilot's progress and lay the groundwork for a potential transition to a permanent rate offering.

## BACKGROUND

### I. PROCEDURAL HISTORY

In November 2019, Xcel filed an integrated distribution plan (IDP), requesting certification of its \$600 million Advanced Grid Intelligence and Security (AGIS) grid-modernization initiative.<sup>1</sup> Certification allowed Xcel to recover AGIS investments through its transmission cost recovery (TCR) rider.<sup>2</sup>

The two largest AGIS projects were Advanced Metering Infrastructure (AMI), and the related Field-Area Network, or (FAN). Together, AMI and FAN accounted for nearly 80 percent of Xcel's total proposed AGIS capital expenditures.<sup>3</sup> Xcel touted these investments' ability to "transform the customer experience through new programs and service offerings, engaging digital experiences, enhanced billing and rate options, and timely outage communications" and "support new developments in smart products and services" by "allowing for the implementation of more advanced price signals."<sup>4</sup>

In July 2020, the Commission accepted Xcel's 2019 IDP and certified the AMI and FAN projects,<sup>5</sup> paving the way for TCR rider recovery, but included requirements for maximizing the benefits of these investments. The Commission recognized that "all future cost recovery will be based upon the Company accomplishing Commission-approved metrics and performance evaluations for the certified projects" and ordered that "[a]ny future proposals for cost recovery of investments certified in this Order must be accompanied by a proposal for specific metrics and

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<sup>1</sup> See Docket No. E-002/M-19-666, Integrated Distribution Plan at 14 tbl.2 (Nov. 1, 2019) [hereinafter 2019 IDP].

<sup>2</sup> See Minn. Stat. §§ 216B.16, subd. 7b(a)(1), .2425, subds. 2(e), 3(b).

<sup>3</sup> See 2019 IDP at 14 tbl.2.

<sup>4</sup> 2019 IDP at 6–7.

<sup>5</sup> Docket No. E-002/M-19-666, Order Accepting Integrated Distribution Plan, Modifying Reporting Requirements, and Certifying Certain Grid Modernization Projects at 16 (July 23, 2020).

evaluation methods, and a detailed plan describing how the company will maximize the benefits of the AGIS investments for ratepayers.”<sup>6</sup>

In November 2021, Xcel sought Commission approval to recover AMI and FAN costs through the TCR rider.<sup>7</sup> The Commission approved Xcel’s request to recover AMI and FAN costs and reiterated that performance metrics and evaluations would be required. Specifically, the Commission required Xcel to propose performance incentive mechanisms in its next TCR rider petition “to facilitate further development of performance metrics and evaluations” for these investments.<sup>8</sup>

In October 2023, Xcel filed its next TCR rider petition. Xcel proposed an incentive mechanism tied to Xcel’s utilization of certain features of AMI meters—the ability to remotely disconnect and reconnect customers, detect usage on unassigned customer accounts, and detect meter theft and tampering.<sup>9</sup> A group of Joint Commenters, including the OAG, recommended an alternative incentive mechanism tied to meter-failure rates, Xcel’s utilization of AMI meters to detect unassigned usage, and the amount of peak load shifted or reduced through advanced rates.<sup>10</sup> Xcel vociferously opposed the Joint Commenters’ proposal.<sup>11</sup>

The Commission declined to approve any performance incentive mechanisms for Xcel’s AMI and FAN investments. Instead, the Commission directed Xcel to “propose procedural

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<sup>6</sup> *Id.*

<sup>7</sup> See Docket No. E-002/M-21-814, Petition for Approval of 2021–2022 TCR Rider at 2 (Nov. 24, 2021).

<sup>8</sup> Docket No. E-002/M-21-814, Order Approving Rider Recovery, Capping Costs, and Setting Filing Requirements at 7 (June 28, 2023).

<sup>9</sup> Docket No. E-002/M-23-467, Petition for Approval of 2023 TCR Rider, attach. 15 at 4 (Oct. 31, 2023).

<sup>10</sup> See Docket No. E-002/M-23-467, Joint Comments at 4 (July 31, 2024). The Joint Commenters were the Minnesota Department of Commerce, the OAG, and Citizens Utility Board of Minnesota.

<sup>11</sup> See *generally* Docket No. E-002/M-23-467, Xcel Reply Comments (Aug. 26, 2024).

pathways for additional demand response and load flex programs by the time of Xcel’s upcoming rate case completeness hearing.”<sup>12</sup>

In response, Xcel proposed filing a Peak Time Rebate program with the Minnesota Department of Commerce under Minn. Stat. § 216B.241 for incorporation into Xcel’s 2024–2026 Energy Conservation and Optimization (ECO) plan.<sup>13</sup> The OAG recommended that a peak-time rebate instead be evaluated in Xcel’s rate case.<sup>14</sup>

The Commission decided that “development, review, and approval of a peak-time rebate program will, at this point, occur most effectively in a new, separate docket rather than through the contested case process in this general rate case.”<sup>15</sup> It directed Xcel to file a proposal by March 17, 2025, which Xcel did in the above-captioned docket.<sup>16</sup> Xcel continued to argue that the peak-time rebate program should be handled as a modification to its ECO program.

The Commission disagreed with Xcel’s procedural recommendation and determined that it would “substantively review” Xcel’s rebate proposal before deciding whether to refer the rebate to the Department for evaluation and potential inclusion in Xcel’s ECO plan.<sup>17</sup>

## II. PEAK-TIME REBATES

A peak-time rebate is a rate that compensates utility customers for reducing their electricity usage during times of high demand. The Regulatory Assistance Project (RAP) explains “peak time rebates” as follows:

**Peak-Time Rebates (PTR):** Customers pay the regular rate at all hours, but if they reduce usage below their historical baseline during short periods when the utility

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<sup>12</sup> Docket No. E-002/M-23-467, Order Approving Transmission Cost Recovery Rider Revenue Requirement and Denying Performance Incentive Mechanisms at 7 (Dec. 4, 2024).

<sup>13</sup> Docket No. E-002/GR-24-320, Xcel Reply comments at 7 (Nov. 18, 2024).

<sup>14</sup> Docket No. E-002/GR-24-320, OAG Reply Comments at 4 (Nov. 18, 2024).

<sup>15</sup> Docket No. E-002/GR-24-320, Notice of and Order for Hearing at 4 (Dec. 30, 2024).

<sup>16</sup> See generally [Petition for Approval to Propose Replacing Energy Actions Days Program with a Peak Time Rebate Program](#) (Mar. 17, 2025) [hereinafter Petition].

<sup>17</sup> Order Initiating Comment Period at 2 (June 5, 2025).

system is stressed, they receive a rebate proportional to the lower usage. This requires measuring a customer's baseline, and then comparing actual usage during an extreme event to that historical baseline.<sup>18</sup>

By shifting usage off peak, a utility and its ratepayers can save both energy costs and capacity costs. Peak-time rebates save energy costs, for example, by avoiding the need to purchase as much wholesale energy when prices are high. They save capacity costs by lowering the peak demand that the utility must meet by building higher-capacity generation, transmission, and distribution infrastructure.

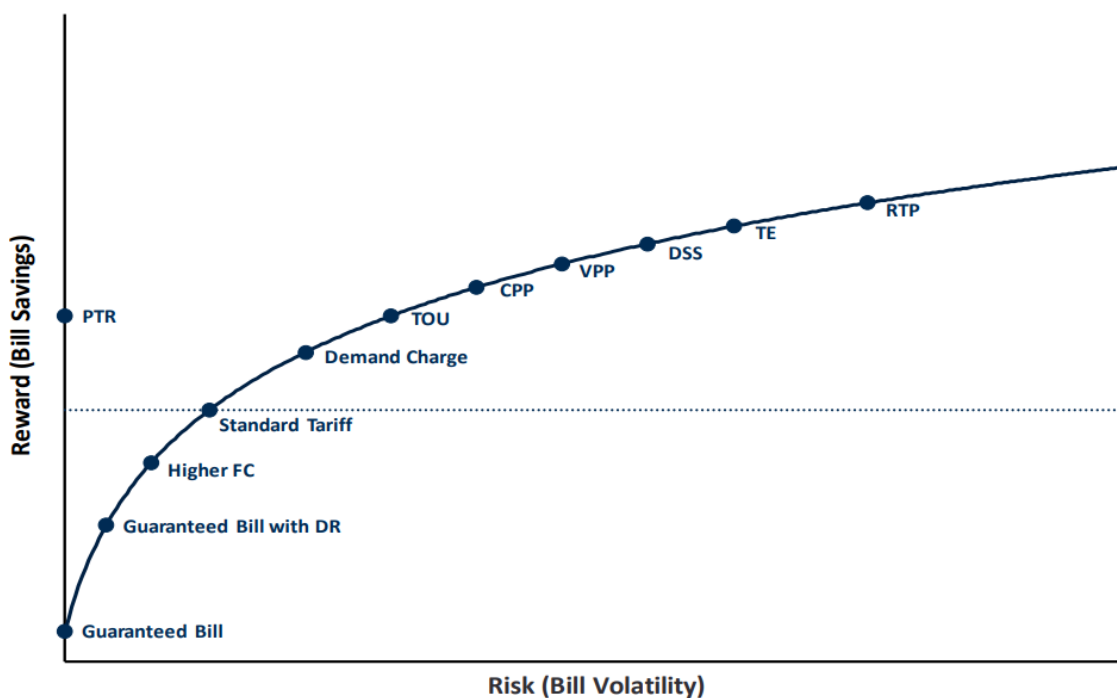
#### **A. Differences Between Peak-Time Rebates and Other Advanced Rates**

Like other advanced rates, peak-time rebates give participants the opportunity to help reduce overall system costs while simultaneously saving money on their electric bills. But unlike other advanced rates, such as critical peak pricing (CPP) or real-time pricing (RTP), peak-time rebates have no downside risk for customers that are unable, for whatever reason, to reduce their peak usage during times of high system constraints. The relationship between bill volatility and bill savings for various advanced rates is shown in Figure 1 below:

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<sup>18</sup> Jim Lazar, RAP, *Rate Design for Vertically Integrated Utilities: A Brief Overview* B-5 (2015), <https://www.raponline.org/wp-content/uploads/2023/09/appendix-b-smart-rate-design-2015-aug-31.pdf>.

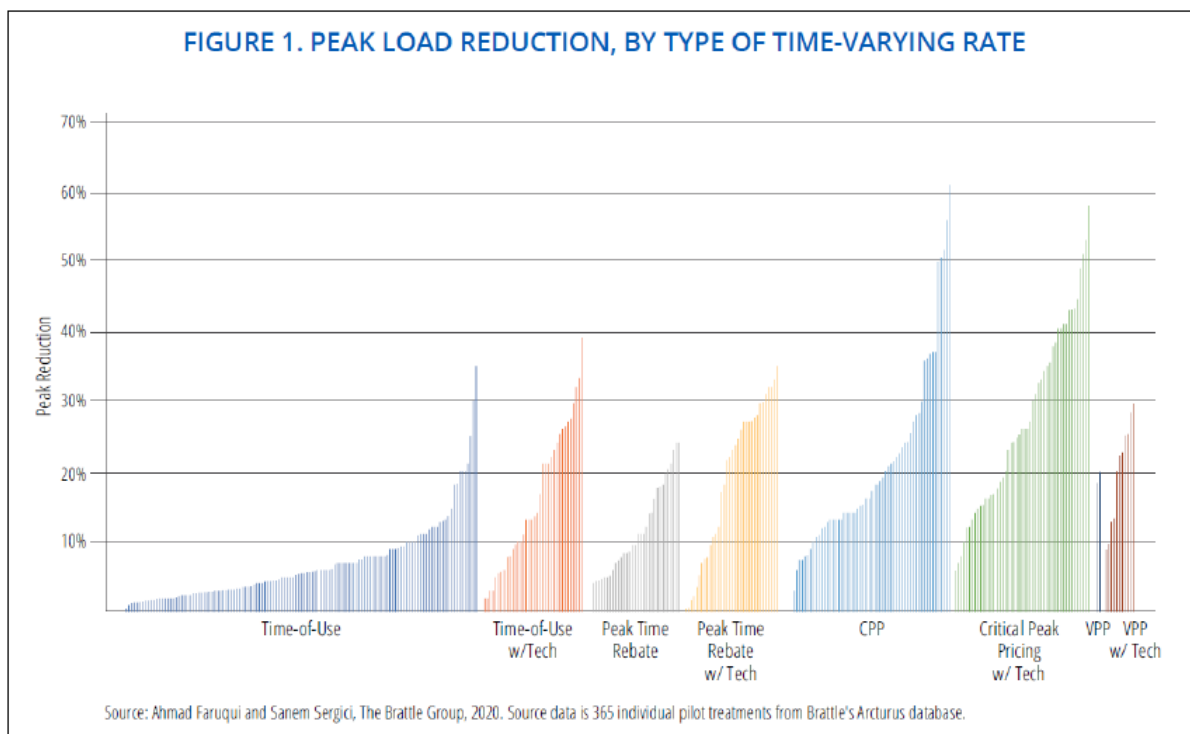
Figure 1<sup>19</sup>



While some of the more risky advanced rates hold the potential for greater bill savings, a peak-time rebate is more protective of consumers because it limits bill volatility. And a peak-time rate can yield substantial peak savings. According to the Brattle Group’s Arcturus database of time-varying rate programs, peak-time rebates can drive peak load reductions of up to 24 percent, even without providing customers additional equipment, such as smart thermostats. The peak reductions associated with various advanced rates are shown in Figure 2 below.

<sup>19</sup> Ahmad Faruqui and Sylvia Tang, Brattle Group, *Best Practices in Tariff Design: A Global Survey* 4 (Apr. 5, 2021), [https://www.brattle.com/wp-content/uploads/2021/06/21941\\_best\\_practices\\_in\\_tariff\\_design\\_-\\_a\\_global\\_survey.pdf](https://www.brattle.com/wp-content/uploads/2021/06/21941_best_practices_in_tariff_design_-_a_global_survey.pdf).

Figure 2<sup>20</sup>



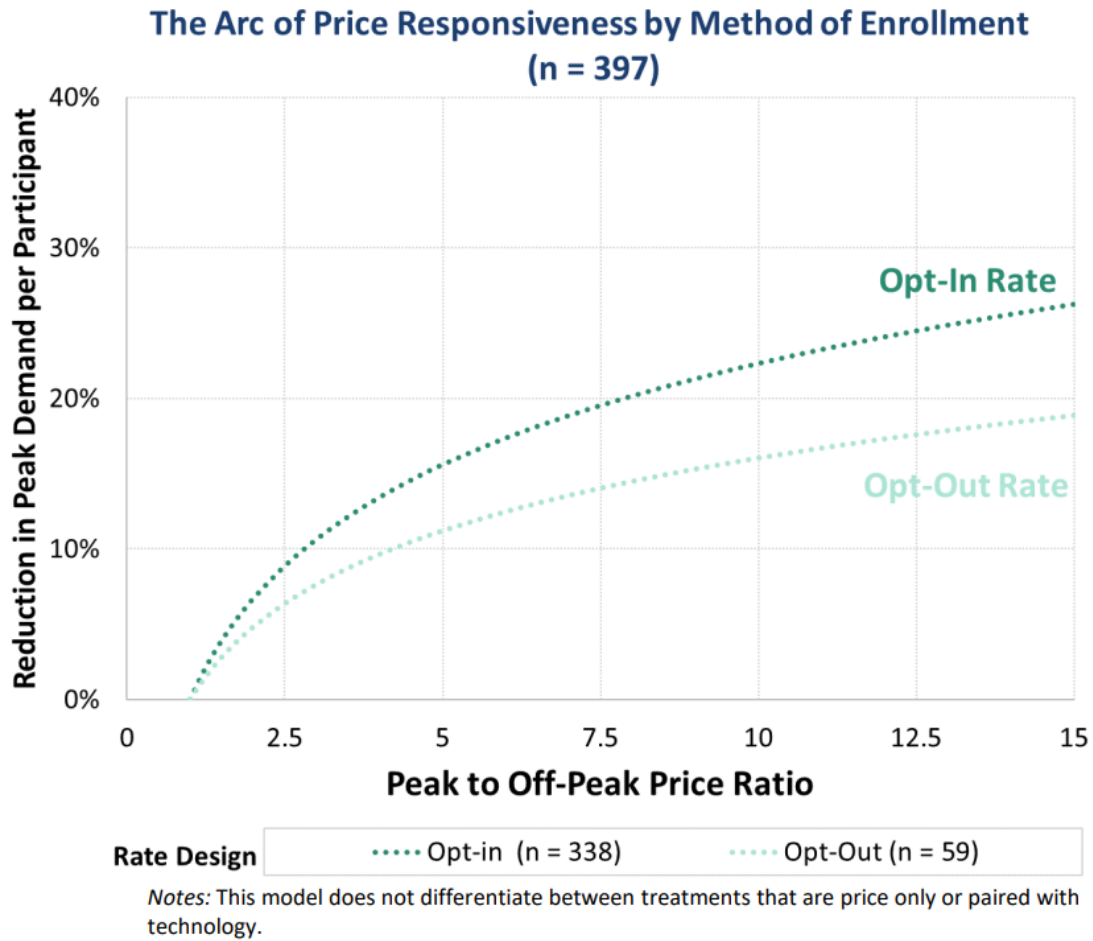
The remainder of this Background section describes three key features of peak-time-rebate program design: (1) whether the rate is offered on an opt-in or opt-out basis; (2) how the rate itself is designed; and (3) how the rate is promoted.

### B. Opt-in vs. Opt-out

There are benefits and drawbacks to either an opt-in or an opt-out approach. Offering advanced rates on an opt-in basis has been shown to yield greater peak savings per customer. This is likely due to the fact that customers who voluntarily opt into an advanced rate tend to be more motivated and responsive to its price signal. Figure 3 below illustrates the higher price-responsiveness of customers on an opt-in rate:

<sup>20</sup> Carl Linvill et al., Regul. Assistance Project, *Emerging Issues in Regulation 20* (Feb. 4, 2022) (on file with author).

Figure 3<sup>21</sup>



The main advantage of an opt-out peak-time rebate is that since it is the default rate, it reaches more customers, increasing the potential aggregate peak reduction even at a lower reduction per customer. For either an opt-in or opt-out peak-time rebate, both the savings per customer and aggregate savings can be increased through promotional efforts, as discussed in more detail below.

<sup>21</sup> Sanem Sergici et al., Brattle Group, *Do Customers Respond to Time-Varying Rates: A Preview of Arcturus 3.0* at 11 (Jan. 2023), <https://www.brattle.com/wp-content/uploads/2023/02/Do-Customers-Respond-to-Time-Varying-Rates-A-Preview-of-Arcturus-3.0.pdf>.

Xcel surveyed 14 other utilities' peak-time-rebate programs in developing its proposal.<sup>22</sup> Only three of these programs implemented peak-time rebates on an opt-out basis.

### **C. Rate-Design Considerations**

There are at least four key rate-design elements of a peak-time rebate: (1) the length of “control” events during which customers are asked to reduce their load; (2) the frequency of and trigger for control events; (3) the baseline against which customer response during the control event is measured; and (4) the credit customers receive for reducing load.

#### **1. Length and frequency of control events**

A “control event” is the period during which customers are asked to reduce their energy consumption. Most of the 14 peak-time-rebate programs that Xcel surveyed had a control-event duration of between three and five hours. Two had control-event durations as low as two hours and one as high as seven.<sup>23</sup> In terms of the frequency of control events, the programs Xcel surveyed had frequencies ranging from a minimum of one event per year to as many as 20 per year.<sup>24</sup> Xcel’s survey does not detail what if any “trigger” utilities used for calling control events.

#### **2. Usage baseline**

To estimate a customer’s peak savings, the utility must make an assumption about what the customer’s usage would have been absent calling a control event. For this purpose, peak-time-rebate programs generally rely on a “baseline,” a measure of representative usage levels during some period prior to a control event. Among the programs Xcel surveyed it was fairly common

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<sup>22</sup> See Petition, attach. B.

<sup>23</sup> See *id.*

<sup>24</sup> See *id.* One utility Xcel surveyed, the Minnesota cooperative Connexus Energy, states on its website that “there are three to five days a month when a peak-time could occur,” but Xcel learned from Connexus that the program was used only two or three times in all of 2024.

to rely on the three highest-usage days out of the ten days or weekdays preceding an event, though there were a number of variations.<sup>25</sup>

### 3. Per-kilowatt-hour credit

The final component of peak-time rebate rate design is a credit per kilowatt-hour (kWh) saved during a control period. The programs that Xcel surveyed had credits ranging from \$0.40/kWh to as high as \$1.25/kWh, with the most common amount being \$1/kWh.<sup>26</sup> Credits earned by a customer are generally placed on the customer's bill annually or monthly. Xcel's survey indicates that at least half of the programs researched provide bill credits monthly.<sup>27</sup>

There is some evidence suggesting that the size of the rebate offered per kilowatt-hour does not correlate with the savings individual customers achieve. Portland General Electric (PGE) piloted 12 demand response programs in 2016–2018, including three separate peak-time rebates with different incentive levels—\$0.08/kWh, \$1.55/kWh, and \$2.25/kWh.<sup>28</sup> Cadmus' study of the peak-time-rebate pilots showed “[n]o statistically significant differences in savings” by rebate amount.<sup>29</sup> In the summer, those customers who received \$0.80 per kWh achieved the same savings as the customers who received \$2.25 per kWh.<sup>30</sup>

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<sup>25</sup> *Id.*

<sup>26</sup> *Id.* One program, from Ameren Illinois, had a variable credit ranging from \$0.10 to \$1.50/kWh.

<sup>27</sup> *Id.* Xcel expressly notes that 7 of the 14 programs provide payment “monthly.” The frequency is unspecified for the other seven programs. The OAG's independent review of the other seven program websites suggests that some pay annually; however, not all website specify payment frequency.

<sup>28</sup> Scott Reeves et al., Cadmus, *Evaluation Report of PGE Flex Pricing and Behavioral Demand Response Pilot Program* at Exec. Summary (June 25, 2018) [hereinafter *Cadmus Report*], <https://edocs.puc.state.or.us/efdocs/HAH/um1708hah16432.pdf>.

<sup>29</sup> *Id.* at 6.

<sup>30</sup> *Id.*

#### **D. Marketing Strategies**

Aggressive promotion of peak-time rebate programs is a key element in their success. As Xcel notes in response to a Department information request, “There are considerably more utility Behavioral Demand Response (BDR) programs which have traditionally focused on information, education and social interactions as opposed to providing customer rebates.”<sup>31</sup> Experience by other utilities also highlights the need for carefully planned outreach efforts to effectively recruit new participants. For example, PGE’s demand-response pilots experimented with three marketing channels—email, postcards, and business letters—and three messaging themes—saving money, taking charge of consumption, and the greater good.<sup>32</sup> Cadmus found that business letters and postcards enrolled customers more effectively than email, and that customers were more likely to respond to messaging about how the rate can save them money than messaging about controlling usage or promoting the greater good.<sup>33</sup>

#### **III. XCEL’S PEAK-TIME-REBATE PROPOSAL**

Xcel proposes to offer peak-time rebates on an opt-in basis initially.<sup>34</sup> Xcel considered an opt-out approach but decided against it because most of the peak-time-rebate programs it surveyed were opt-in, and because Xcel believes that an opt-out approach would likely not be cost-effective.<sup>35</sup> Xcel states that launching the program on an opt-in basis, with a smaller group of customers, would allow it to start the program sooner and gather information to assess the feasibility of a larger, opt-out program.<sup>36</sup>

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<sup>31</sup> Xcel Response to DOC IR 16, attached.

<sup>32</sup> *Cadmus Report* at 21.

<sup>33</sup> *Id.* at 70.

<sup>34</sup> Petition at 10.

<sup>35</sup> *Id.* at 11.

<sup>36</sup> *Id.*

Xcel plans to focus its marketing efforts on customers participating in its “Energy Action Days” behavioral-demand-response program. Xcel currently sends Energy Action Days messaging to approximately 550,000 residential customers to encourage them to reduce energy use on peak days at peak times.<sup>37</sup> Of those 550,000 customers, approximately 300,000 are already enrolled in another demand-response offering, such as Saver’s Switch or AC Rewards.<sup>38</sup> Xcel proposes to market the peak-time rebate to the remaining 250,000 Energy Action Days participants who are not already participating in a demand-response offering. Xcel states that isolating peak-time-rebate-related savings for customers participating in another demand-response offering would be too difficult.<sup>39</sup>

Xcel does not define a trigger for control events. It states that it will call events “based on anticipated system demand” and that events “may occur at any time of the year.”<sup>40</sup> Xcel anticipates an average of three to five events per year based on its experience with Energy Action Days events.<sup>41</sup> It proposes to send customers notifications by email, text, or interactive voice response a maximum of one day and a minimum of one hour in advance of each event.<sup>42</sup> A control event would last from two to five hours.<sup>43</sup>

Program participants who reduce their usage during a control event would be eligible for a rebate determined by comparing their control-event kilowatt (kW) peak to a baseline kW level determined from the three highest-usage days over the ten-day period preceding the event.<sup>44</sup> The

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<sup>37</sup> *Id.* at 12.

<sup>38</sup> *Id.* at 10, 12.

<sup>39</sup> *Id.*

<sup>40</sup> *Id.* at 13.

<sup>41</sup> *Id.*

<sup>42</sup> *Id.*

<sup>43</sup> *Id.* at 7.

<sup>44</sup> *See id.* at 13–14 (describing rebate calculation); Xcel Response to OAG IR 8 (providing example calculation), attached.

difference peak kW between the baseline and control period would be multiplied by the total hours in the control period to derive a kWh figure, and participants would receive \$1 for each kWh saved.<sup>45</sup> Xcel proposes to send participants an email within three days of an event notifying them of their savings during the event as well as their cumulative savings.<sup>46</sup> The rebate itself would be paid via a one-time annual bill credit covering all control events during the preceding year.<sup>47</sup> Xcel estimates an average rebate per customer of \$12.50 per year.<sup>48</sup>

Xcel initially estimated an annual budget of about \$1.1 million, composed largely of the cost to have an outside vendor administer the program:

**Table 1: Electric Budget**

| <b>Budget Category</b> | <b>2026 Expenses</b> |
|------------------------|----------------------|
| Vendor                 | \$800,000            |
| Rebates                | \$187,500            |
| Technology Services    | \$50,000             |
| Administration         | \$80,000             |
| Marketing              | \$20,000             |
| Total                  | \$1,137,500          |

The vendor contract comprised \$800,000, or 70.3 percent of the initial budget.<sup>49</sup> However, that cost was a rough estimate due to the fact that Xcel’s process to select a vendor was still ongoing at the time of filing.<sup>50</sup> The vendor-selection process has since concluded, and in response to

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<sup>45</sup> See Petition at 13–14 (explaining rebate calculation); Xcel Response to OAG IR 8 (providing example calculation).

<sup>46</sup> Petition at 13.

<sup>47</sup> *Id.* at 14.

<sup>48</sup> *Id.* Xcel assumes average per-customer savings of 2.5 kWh per event and five events per year. 2.5 kW \* \$1/kW \* 5 = \$12.50

<sup>49</sup> *Id.*

<sup>50</sup> *Id.*

discovery Xcel provided an updated vendor cost of \$440,000 annually.<sup>51</sup> Xcel's new vendor cost would update the program budget to \$777,500.

The \$187,500 in rebate costs are based on Xcel's assumptions about how many customers will opt into the program and how participants will respond to control events. Xcel assumes that 15,500 customers, or six percent of the 250,000 customers initially targeted, will opt into the program and save 2.5 kWh on average in response to each control event.<sup>52</sup>

Xcel conducted a cost-benefit analysis of its peak-time rebate proposal using the same method it uses to evaluate ECO programs.<sup>53</sup> The results show that the peak-time rebate program proposal barely passes the "Minnesota Test" with a score of 1.01.<sup>54</sup> The Minnesota Test accounts for societal benefits, specifically benefits from avoided electric-generation emissions.<sup>55</sup> The program barely fails the "Electric Rate Impact Test," with a score of 0.98,<sup>56</sup> meaning that, all else equal, the rebate program would tend to slightly increase non-participating customer bills. This analysis, however, was conducted before Xcel updated its vendor cost estimate, and the scores are likely to improve with the new, much-lower cost that Xcel is now projecting.

In addition, Xcel's analysis does not appear to capture all potential benefits of customer load reductions. For example, neither the Minnesota Test nor the Electric Rate Impact Test accounts for any transmission or distribution capacity benefits of participant load reductions.<sup>57</sup> Xcel acknowledges that "a PTR program could have benefits for the transmission and distribution system if it were dispatched in a coincident and locational manner to align with the peaking

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<sup>51</sup> Xcel Response to OAG IR 2 at 2, attached.

<sup>52</sup> Petition at 14.

<sup>53</sup> *Id.* at 12, 14.

<sup>54</sup> *Id.* at 15, attach. D.

<sup>55</sup> *See id.*, attach. D.

<sup>56</sup> *See id.*

<sup>57</sup> *See id.* (line labeled "Transmission and Distribution Capacity").

conditions of these systems.”<sup>58</sup> However, Xcel did not account for these benefits because the program “will be dispatched for system generation peak” rather than used to mitigate distribution or transmission constraints.<sup>59</sup>

## ANALYSIS

Xcel’s peak-time-rebate proposal appears to be reasonable in most respects. That said, the proposal’s cost-effectiveness depends on a number of uncertain assumptions, and many details of the program still need to be fleshed out. The Commission should authorize Xcel to launch the peak-time rebate as a pilot program to allow further data gathering that can inform whether and how to transition the rebate into a permanent offering. In the meantime, Xcel should take the opportunity to try out different approaches to marketing the program to potential subscribers to test their efficacy. It should also track and periodically report certain key metrics that will help to determine where the pilot is succeeding and where it can be improved. Finally, the Commission need not prejudge the cost-recovery process for the rebate pilot; instead, it should allow Xcel to take whatever cost-recovery path the utility feels is most appropriate.

### **I. THE PEAK-TIME-REBATE PROGRAM SHOULD BE LAUNCHED AS A PILOT.**

Xcel’s proposed peak-time-rebate design is broadly consistent with that of the other utilities that Xcel surveyed, and Xcel’s proposal generally appears reasonable. Xcel’s preliminary assessment of its peak-time-rebate proposal found that it was barely cost-effective, yet experience at other utilities suggests that peak-time rebates, if widely adopted, hold the potential for significant system savings. Since this would be Xcel’s first time offering peak-time rebates, it is unclear how realistic many of Xcel’s assumptions are. Given this uncertainty, it makes sense for Xcel to offer the rebate on an opt-in basis and reevaluate the program, including its cost-

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<sup>58</sup> Xcel Response to OAG IR 6, attached.

<sup>59</sup> *Id.*

effectiveness, after an initial trial period of two to four years. A trial period will allow Xcel's key assumptions about the rebate program to be assessed, including but not limited to (1) the six percent opt-in rate, (2) vendor and other annual costs, and (3) assumptions about participant response to control events and the resulting savings.

Piloting the rebate would allow Xcel to test its assumptions about response rate. Xcel assumes a "six percent response rate," resulting in initial enrollment of 15,500 customers in the program.<sup>60</sup> Xcel explains that its "[r]esponse rate assumptions were informed by overall market potential and the historical performance of similar programs in the Company's ECO portfolio."<sup>61</sup> However, if Xcel markets the peak time rebate differently than it has marketed other demand-response programs, the response rate may be different. A six percent response rate would be on the high end of what PGE experienced with its peak-time-rebate pilots. PGE experienced response rates ranging from 2.8 percent to 6.2 percent,<sup>62</sup> with the highest rate being for a rebate that offered a \$2.25/kWh credit.<sup>63</sup> PGE achieved the 6.2 percent rate after incorporating lessons learned from earlier recruitment waves, which showed that marketing using business letters was more effective than using email. Xcel currently has no plans to use regular mail, suggesting that its response rate could be lower than PGE's.

Piloting the rebate program will also allow Xcel to test its cost assumptions. Xcel's vendor contract, even at the reduced \$440,000 level, is by far the largest annual cost of the program. While it is a rough estimate subject to change, it appears to be high compared to experience at other utilities. For example, a similar program at Commonwealth Edison (ComEd) had administrative

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<sup>60</sup> Petition at 12.

<sup>61</sup> Xcel Response to DOC IR 6, attached.

<sup>62</sup> *Cadmus Report* at 9.

<sup>63</sup> *Id.* at 36.

costs of around \$1.5 million in the 2023 program year for more than 350,000 customers,<sup>64</sup> a cost per customer of around \$4.<sup>65</sup> By contrast, the cost per customer for Xcel’s vendor contract alone is \$440,000 / 15,500 or more than \$28—over seven times the cost per customer of ComEd’s program. The cost per customer for the vendor contract will improve if the number of participants increases above 15,500. On the other hand, reaching higher participation levels will likely require more aggressive marketing efforts (discussed below), leading to higher marketing costs. Piloting the peak-time-rebate program would allow Xcel to gain experience with these different variables and fine-tune its marketing approach.

Finally, gaining experience through a trial period would allow Xcel to test its assumptions about customer response to control events and the resulting avoided costs. Xcel assumes that the average peak reduction per customer is will be 0.63 kW “based on other utility experience.”<sup>66</sup> It appears that Xcel “reverse engineered” this peak-reduction number starting from the assumption that the customer rebate per event will be \$2.50.<sup>67</sup> The projected 0.63 kW reduction is much larger than the 0.016 kW reduction Xcel has seen in its Energy Action Days program.<sup>68</sup> Some of this difference is likely explained by the fact that Energy Action Days is an opt-out program, likely reducing the level of average customer engagement, and does not offer an incentive. However, Xcel’s estimate is also larger than the peak reductions seen in other opt-in peak-time-rebate

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<sup>64</sup> Resource Innovations, *Commonwealth Edison Company’s Peak Time Savings Program Annual Report for the Year Ending May 31, 2024* at 3, 35 (Aug. 2024), [hereinafter *ComEd Report*], <https://www.icc.illinois.gov/docket/P2012-0484/documents/354730/files/621367.pdf>.

<sup>65</sup> As another point of reference, a 2022 Brattle study for Xcel’s Colorado affiliate of demand response potential assumes fixed administrative costs of \$500,000 for a peak-time-rebate program assuming 90 percent participation of eligible customers. <https://www.brattle.com/wp-content/uploads/2022/09/Xcel-Energy-Colorado-Demand-Response-Study-Opportunities-in-2030.pdf> tbl.5, tbl.7.

<sup>66</sup> Petition at 14.

<sup>67</sup> Xcel Response to DOC IR 10, attached.

<sup>68</sup> Petition at 11.

programs. PGE's peak-time-rebate pilots, for example, averaged 0.39 to 0.48 kW load reduction per customer for summer events.<sup>69</sup> ComEd's program showed load reductions over 2019–2023 that ranged from 0.1 to 0.2 kW per customer.<sup>70</sup> These experiences both illustrate that there can be variation in customer response to control events and suggest that Xcel's 0.63 number may be optimistic. Piloting the program will help nail down more realistic assumptions.

## **II. XCEL SHOULD AGGRESSIVELY MARKET THE PEAK-TIME-REBATE PROGRAM.**

The effectiveness of Xcel's recruitment efforts, and its communications with participants, will be major determinants how well the peak-time-rebate program achieves its goals. It is therefore worth spending time to craft these program components. Xcel states that "[s]ince the program has not been approved yet, specific marketing tactics have not yet been developed."<sup>71</sup> The Commission should provide Xcel some direction now to help guide the development of its marketing strategy. For the reasons explained below, the Commission should require Xcel to do the following: (1) market the peak time rebate through letters or postcards; (2) target customers with high peak load with individualized messages about potential bill savings; (3) target customers in constrained areas of the grid; and (4) provide feedback on customer performance within 48 hours of a control event and ideally within 24 hours.

### **A. Xcel Should Market the Rebate Through Direct-Mail Messaging.**

Assuming Xcel's peak-time-rebate program is launched as an opt-in program, it will be important to expand the pool of potential savings by effectively marketing the offering. Aggressive marketing efforts will help ensure a response rate in line with Xcel's assumed six percent rate that would yield 15,500 initial participants. Xcel only budgets \$20,000 annually for

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<sup>69</sup> *Cadmus Report* at 40 fig.2.

<sup>70</sup> *ComEd Report* at 23 fig.4-4.

<sup>71</sup> Xcel Response to OAG IR 2 at 4, attached.

marketing<sup>72</sup> and plans to market the program primarily through email communications.<sup>73</sup> This approach does not seem likely to maximize opt-ins. Both ComEd and PGE used direct mail in their peak-time-rebate marketing, and PGE’s experience suggests that email is not a very effective way of recruiting participants.<sup>74</sup>

Accordingly, the Commission should require Xcel to incorporate direct mail messaging (business letters, postcards) into its marketing plan for the peak-time-rebate pilot. While direct-mail marketing is likely to be costlier than the email-based that Xcel proposes,<sup>75</sup> the additional investment may pay off through increased enrollment. Moreover, the reduced vendor contract cost leaves significant headroom for Xcel to take more aggressive marketing efforts without impairing the cost-effectiveness of the program, even in the unlikely event that more costly recruitment efforts do not yield incremental benefits.

**B. Xcel Should Target High-Peak-Load Customers.**

In addition to marketing through direct mail, Xcel should focus its recruitment efforts on customers with a high peak load, since these customers are likely to represent the highest potential for beneficial peak-load reductions. Targeting higher-load customers was an approach recommended by a consultant who evaluated ComEd’s program.<sup>76</sup> In addition, PGE’s experience suggests that the most effective type of customer messaging speaks to how participants can save money on their bills by earning rebates. Therefore, in addition to targeting high-load customers, the Commission should also direct Xcel to develop the capability to send potential participants

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<sup>72</sup> Petition at 14 tbl.1. The vendor contract does not include marketing the program to new participants. See Xcel Response to OAG IR 2 at 4.

<sup>73</sup> Petition at 12.

<sup>74</sup> *Cadmus Report* at 70.

<sup>75</sup> See Xcel Response to OAG IR 2 at 5 (noting that “[a]dditional labor resources will . . . be necessary to design and execute an expanded marketing strategy”).

<sup>76</sup> See *ComEd Report* at 44.

personalized bill messages (on the bill itself or as an insert) illustrating the savings they could have realized during a recent control event. An example of such a message might be: “You could have saved \$ \_\_\_ on your [month] bill if you’d been part of our Peak Time Saver program. Go to [web address] or call [phone number] to find out how you can save.” The “\$ \_\_\_” field would be filled in with an estimate of the savings that that particular customer could have realized based on the customer’s baseline peak load and a representative reduction in the peak during the control period.

**C. Xcel Should Target Customers in Constrained Areas.**

A third way in which Xcel could improve the effectiveness of the peak-time-rebate program would be to target customers in constrained areas of the distribution system. Load reductions targeted to constrained areas are more likely to help defer infrastructure investments, driving greater distribution-capacity savings than a non-targeted approach. Since Xcel’s cost–benefit analysis does not account for transmission or distribution capacity savings,<sup>77</sup> focusing on constrained areas would be a way to improve the program’s cost-effectiveness.

Focusing on constrained areas will be especially important as Xcel begins to propose “proactive” upgrades to the distribution system under the framework recently approved by the Commission.<sup>78</sup> Proactive distribution upgrades are capital projects undertaken to accommodate load growth outside the normal planning horizon.<sup>79</sup> The proactive-upgrade framework requires Xcel to address, for each proposed proactive upgrade, whether the Company performed a “non-wires alternative” analysis for the upgrade and if not, a discussion of alternative measures, such as energy conservation and load management, that could eliminate the need for the upgrade.<sup>80</sup> If

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<sup>77</sup> See Petition, attach. D.

<sup>78</sup> See generally Docket No. E-002/M-24-318, Order Establishing Framework for Proactive Distribution Grid Upgrades (Sept. 2, 2025).

<sup>79</sup> See *id.* at 1, attach. at 3 ¶ B.13.

<sup>80</sup> *Id.*, attach. at 7 ¶ G.6.

employed in a targeted manner, peak-time-rebates could be a tool to defer the need for some proactive upgrades.

Xcel acknowledges that customer load reductions are more valuable in some parts of the distribution system than in others.<sup>81</sup> Xcel further explains that, as part of its Integrated Distribution Plan (IDP), it identifies distribution nodes “where the expected load may exceed the capacity of the node.”<sup>82</sup> Xcel then evaluates the potential exceedances to see if a non-wires alternative could mitigate the exceedances.<sup>83</sup> Xcel states, however, that it has not yet analyzed the peak-time rebate in the context of distribution load reduction.<sup>84</sup> The OAG understands that analyzing the impact of peak-time rebates on distribution constraints will require time and experience with the program. The Commission should, nonetheless, require Xcel to begin working to mitigate potential exceedances by targeting program marketing at customers served by distribution nodes identified in the IDP as nearing exceedance.

**D. Xcel Should Provide Timely Feedback to Participants to Reinforce Beneficial Behavior.**

Finally, Xcel should provide timely feedback to participants after a control event to help reinforce customer behavior that benefits the grid. Xcel proposes emailing participants within three days of a control event to notify them of their savings information for that event. However, the Commission should require Xcel to set a goal of delivering feedback within 24 hours of an event and in no event later than 48 hours after the event ends. Timely post-event feedback is especially important to reinforce beneficial behavior since Xcel proposes to only provide bill credits annually rather than each month in which a control event occurs.

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<sup>81</sup> Xcel Response to OAG IR 5 at 2, attached.

<sup>82</sup> *Id.*

<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

For all the foregoing reasons, the Commission should direct Xcel to make marketing- and communications-related changes to improve the effectiveness of the peak-time-rebate program. While some of these changes will come at an additional cost, the incremental benefits may offset some costs and the additional information that could come from increased participation will likely be beneficial. Moreover, the \$360,000 reduction in vendor costs leaves substantial headroom to increase the \$20,000 marketing budget while staying well within the original overall cost that Xcel projected.

### **III. THE COMMISSION SHOULD REQUIRE ANNUAL REPORTING TO MONITOR THE PROGRAM'S EFFICACY AND LAY THE GROUNDWORK FOR FUTURE REFINEMENTS.**

The Commission should require annual reporting on the peak-time-rebate program during its pilot phase. Xcel should track and report on metrics that will both allow the Commission to judge the efficacy of the program and build a record to support future changes if the program is continued beyond the pilot period. Metrics to be tracked and reported should include, but not be limited to, the following:

1. Number of customers (a) invited to opt in and (b) opting in
  - Total
  - By message channel (email, letter postcard, etc.)
  - By peak load
  - Located in constrained area
2. For each control event
  - Date and timeframe
  - Hours' notice given
  - Xcel's distribution-system peak in MW
  - Maximum MISO day-ahead and real-time energy prices for the Minnesota hub
  - Average peak load reduction per customer
  - Number of participants sent follow-up emails
    - Within 24 hours
    - Within 48 hours
    - Later than 48 hours
3. Potential savings per year in kW and kWh
  - Total
  - Per control event
  - Per customer

4. Actual savings per year in kW and kWh
  - Total
  - Per control event
  - Per customer
5. Avoided generation, transmission, and distribution costs

In addition, Xcel should report annually on the feasibility of, and potential additional savings from, extending eligibility to customers who are already participating in another demand-response program (AC Rewards, Saver’s Switch) or a net-metered rate. Finally, Xcel should report on its efforts to develop the capability to send potential participants personalized bill messages illustrating the savings they could have realized during a recent control event. Peak-time-rebate reports would not need to be approved, accepted, or otherwise acted upon by the Commission until the end of the pilot term, but the Commission would be free, in the interim, to issue a notice seeking comments on any topics of interest arising from a report.

**IV. XCEL MAY CHOOSE TO SEEK COST RECOVERY THROUGH ITS ECO PLAN, BUT THE COMMISSION DOES NOT NEED TO PREAUTHORIZE A PARTICULAR COST-RECOVERY PATH.**

The Commission’s comment notice asks what method of cost recovery is appropriate for peak-time-rebate program costs and whether the Commission should authorize the Xcel to seek future cost recovery through Xcel’s ECO portfolio. While the OAG does not believe that the Commission needs to direct Xcel to pursue any particular cost-recovery path, ECO recovery certainly is an option that the utility can pursue and appears to be its preferred path.

The OAG has supported the Commission retaining jurisdiction over the peak-time-rebate program. But the OAG has no objection to Xcel seeking cost recovery by including the program in its 2024–2026 or 2027–2029 ECO portfolio. There appears to be overlap between the Commission’s authority over “rates” and the Department’s authority over “load management” under the ECO act, such that a program like the peak-time-rebate pilot could simultaneously meet both definitions. Xcel, therefore, is free to put forward the peak-time-rebate pilot as a modification

to its 2024–2026 ECO plan or a new program in its 2027–2029 ECO plan, provided that the Commission retains the ability to shape the peak-time-rebate rate. If the Department approves inclusion in Xcel’s ECO portfolio, cost recovery would then proceed according to the normal process for ECO expenditures.

## RECOMMENDATIONS

For all the foregoing reasons, the Commission should take the following actions:

1. Authorize Xcel to pilot a peak time rebate for a period of 2–4 years<sup>85</sup> as outlined in its petition and with the below modifications.
2. With respect to Xcel’s marketing and participant communications, require Xcel to:
  - a. Market the peak time rebate through letters or postcards in addition to email;
  - b. Target customers with high peak load using messages about potential bill savings;
  - c. Develop the capability to send non-participating customers with high-peak-loads personalized bill messages illustrating the bill savings they could have realized during a recent control event;
  - d. Target customers for increased marketing in constrained areas of the grid, including distribution nodes identified in Xcel’s most recent IDP as nearing capacity exceedance; and
  - e. Provide feedback on customer performance within 48 hours of a control event and ideally within 24 hours.
3. Require Xcel to track and annually report metrics including but not limited to:
  - a. Number of customers (1) invited to opt in and (2) opting in
    - i. Total
    - ii. By message channel (email, letter postcard, etc.)
    - iii. By peak load
    - iv. Located in constrained area
  - b. For each control event
    - i. Date and timeframe
    - ii. Hours’ notice given
    - iii. Xcel’s distribution-system peak in MW during the event timeframe

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<sup>85</sup> If Xcel opts to pursue cost recovery through its ECO plan, the Commission may want to set the end date for the pilot at December 31, 2029, to coincide with the end of Xcel’s next ECO triennial.

- iv. Maximum MISO day-ahead and real-time energy prices for the Minnesota hub during the event timeframe
  - v. Average peak load reduction per customer
  - vi. Number of participants sent followup emails
    - 1. Within 24 hours
    - 2. Within 48 hours
    - 3. Later than 48 hours
  - c. Potential savings per year in kW and kWh
    - i. Total
    - ii. Per control event
    - iii. Per customer
  - d. Actual savings per year in kW and kWh
    - i. Total
    - ii. Per control event
    - iii. Per customer
  - e. Avoided generation, transmission, and distribution costs
4. In addition to the metrics above, require Xcel to report annually on:
- a. The feasibility of, and potential additional savings from, extending eligibility to customers who are already participating in another demand-response program (AC Rewards, Saver's Switch) or a net-metered rate; and
  - b. Xcel's efforts to develop the capability to send potential participants personalized bill messages illustrating the bill savings they could have realized during a recent control event.
5. Take no action regarding potential cost-recovery paths.

Dated: September 5, 2025

Respectfully submitted,

KEITH ELLISON  
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State of Minnesota

/s/ Peter G. Scholtz  
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ATTORNEYS FOR MINNESOTA  
OFFICE OF THE ATTORNEY GENERAL—  
RESIDENTIAL UTILITIES DIVISION

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Xcel Energy Information Request No. 16  
Docket No.: E002/M-24-432  
Response To: Minnesota Department of Commerce  
Requestor: Peter Teigland, Andy Bahn, Rachel Wiedewitsch  
Date Received: July 28, 2025

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Question:

Topic: Xcel's proposed PTR program

Reference(s): PTR Program Petition

Refer to Xcel's PTR Application, p. 6, which states that utilities may not offer rebates as part of their behavioral demand response programs because rebates are "Not an effective behavioral motivator."

- a. Please explain why rebates may not effectively motivate behavior.
- b. How, if at all, has the Company attempted to address this potential incentive issue in the design of its proposed PTR program?

Response:

- a. The statement that rebates may not be an effective motivator was provided as one of several reasons why utilities typically do not offer rebates for behavioral demand response programs. While rebates may motivate some customers, they may not be the most effective tool to motivate behavior. Per a Cadmus evaluation of Portland General Electric's Peak-Time Rebates program, larger rebates did not yield more Flex Event savings (See, <https://edocs.puc.state.or.us/efdocs/HAH/um1708hah16432.pdf>).

The are a limited number of PTR programs in the United States. The Company gathered benchmarking information on 14 utility programs, as noted in Attachment B of the Company's Petition filed on the above referenced docket on March 17, 2025. There are considerably more utility Behavioral Demand Response (BDR) programs which have traditionally focused on information, education and social interactions as opposed to providing customer rebates.

- b. The Company's proposed program, including rebate level, leveraged design elements common with the other utilities that have chosen to move forward with a PTR rebate program, and did not otherwise specifically address any potential incentive issues.

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Preparer: Kris Kohls  
Title: Regulatory Policy Specialist  
Department: Customer Energy & Transportation Solutions  
Telephone: 612-216-8124  
Date: August 8, 2025

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Xcel Energy Information Request No. 8  
Docket No.: E002/M-24-432  
Response To: Minnesota Office of the Attorney General  
Requestor: Peter Scholtz  
Date Received: August 19, 2025

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Question:

Reference: PTR Program Petition at 13-14

“Leveraging data available from the customer’s AMI meter, the customer’s usage during each event will be compared to a baseline, which is the three highest usage days over the 10-day period prior to the event.”

Describe in detail how the baseline will be calculated and provide an example.

Any responsive documents must be provided in their unlocked native format with all formulas and links intact.

Response:

Key to evaluating the performance of a demand management program is calculating the amount of energy not used during a control event. In this case, we establish a baseline of energy consumption against which consumption during the event can be compared. We are planning to use a “3 in 10” baseline, which is a methodology commonly used by utilities for BDR programs including the Company’s current BDR program - Energy Action Days (EAD). This methodology identifies consumption during the past ten days (non-weekend and non-control days), averages consumption during the highest three, and uses that average as the baseline consumption.

A more in-depth analysis of the EAD energy savings methodology is available in the Energy Action Days Behavioral Demand Response Impacts report which was included in the Company’s 2024 ECO Status Report, filed on April 1, 2025<sup>1</sup> and is included here as OAG-008 Attachment A.

The table below can be used to illustrate. It has hypothetical energy consumption during the control hours for the past ten days. We isolated the highest three and

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<sup>1</sup> [Status Report, 2024 Energy Conservation & Optimization Consolidated Filing, Docket No. G,E002/CIP-23-92, Department of Commerce, April 1, 2025.](#)

calculated an average. This becomes the baseline against which we measure consumption during the control event.

**Illustrative Example: Calculating “3 in 10” Baseline**

| <b>Past Ten Days</b>    | <b>Measured Peak Use (Watts)</b> | <b>3 in 10 Baseline Use (Watts)</b> |
|-------------------------|----------------------------------|-------------------------------------|
| Monday                  | 400                              |                                     |
| Tuesday                 | 450                              |                                     |
| Wednesday               | 400                              |                                     |
| Thursday                | 450                              |                                     |
| Friday                  | 510                              | 510                                 |
| Monday                  | 400                              |                                     |
| Tuesday                 | 400                              |                                     |
| Wednesday               | 620                              | 620                                 |
| Thursday                | 350                              |                                     |
| Friday                  | 520                              | 520                                 |
|                         |                                  |                                     |
| Average Baseline Usage: |                                  | 550                                 |

If the baseline is 550 Watts and the maximum consumption during the control event is 230 Watts, the savings is 320 Watts or 0.32 kW. Over a 4-hour event, the savings is 1.28 kWh, and the customer receives a rebate of \$1.28 for the event.

Preparer: Patrik Ronnings  
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 Department: Demand Management  
 Telephone: 612-330-5787  
 Date: August 29, 2025

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Xcel Energy Information Request No. 2  
 Docket No.: E002/M-24-432  
 Response To: Minnesota Office of the Attorney General  
 Requestor: Peter Scholtz  
 Date Received: August 19, 2025

Question:

References: PTR Program Petition at 8:

“There is an ongoing Request for Proposal (RFP) to select an implementation vendor for a variety of services under our ECO programs, including the current Energy Action Days program. Because the programs are so similar, the vendors responding to this RFP will likely be able to deliver the revised PTR program and during the onboarding process the Company will work with the vendor to adjust the Scope of Work (SOW) as needed to accommodate any process changes from Energy Action Days to PTR.”

PTR Program Petition at 14, Table 1

**Table 1: Electric Budget**

| <b>Budget Category</b> | <b>2026 Expenses</b> |
|------------------------|----------------------|
| Vendor                 | \$800,000            |
| Rebates                | \$187,500            |
| Technology Services    | \$50,000             |
| Administration         | \$80,000             |
| Marketing              | \$20,000             |
| <b>Total</b>           | <b>\$1,137,500</b>   |

- A. Describe in detail the scope of work to be completed by the vendor for the PTR Program, estimated at a cost of \$800,000.
- B. Provide the RFP describing the scope of work and services to be rendered by a vendor related to the Energy Action Days program.
- C. For the Technology Services, Administration, and Marketing budget categories, describe the nature of the expenses in detail and explain how the expense estimates were arrived at.

- D. For all budget categories except Rebates, estimate the incremental costs of an additional PTR program participant beyond the estimated 15,500 initial participants. If the incremental costs would not be expected to increase with one additional participant, estimate i) how many participants could be accommodated at the budget levels described in Table 1 and ii) at what level of participants these costs would be expected to increase.
- E. Estimate PTR program expenses assuming a doubling of participants to 31,000, with all other assumptions remaining the same.

Any responsive documents must be provided in their unlocked native format with all formulas and links intact.

Response:

- A. As described in the Petition, the vendor cost estimates were based on the scope of work (SOW) for the current BDR program, Energy Action Days (EAD). However, the RFP process is now complete, and a vendor has been selected to implement a variety of programs including EAD. Because the RFP included multiple programs, the Company negotiated a more advantageous agreement resulting in considerable cost savings. Therefore, the vendor expenses are expected to decrease from \$800,000 to \$440,000 annually. The SOW is for a comprehensive package of Behavioral Demand Response cloud services from Opower. The SOW directs the vendor to do the following:

**Program Set Up:** Establish system integration with the Company. This set up and integration is essential for the exchange of customer information, meter data and analytical results between the organizations. This set up will also include creating the model used in the data analytics phase discussed in more detail in OAG-008 to determine the baseline and calculate energy savings.

**Creation of Communication Content:** Design effective, tailored, meaningful communications to send to customers to make them aware of events taking place, assist them with ideas for how to participate in the event, and inform them about their performance during an event after the fact. This includes creating content for three specific types of communication:

1. Pre-season program awareness. Get customers excited about participating in the program, prepare them for upcoming event days, and educate them on how to prepare their homes for participation.
2. Event day notification. Clearly communicate with customers about the current event. Remind customers of specific actions they can take to best participate in the event.

3. Post-event day information. Provide customers with their event day energy reduction data and their year-to-date event energy reduction total. Remind customers to continue to be ready for future events and how they can be as or more successful in reducing energy use during future events. Encourage customers to stay engaged with the program and challenge them to meet or exceed their energy savings during the next event to increase their annual rebate.

**Customer preference management interface:** Provide the Company access to an online portal to make changes to enrollment status for customers electing to opt out via direct engagement with Xcel Energy, supplementing the embedded email opt-out functionality.

**Data Analytics and Performance Tracking:** Monitor and analyze customer participation metrics and behavioral response efficacy in real time during an event. Provide statistics on emails sent, number of customers reached and not reached (i.e. bounce back emails), and number of customers who unenrolled in the program because of the event day notification.

**Post-Event Program Performance and Impact Evaluation:** Using the customer's meter data and data collected during the performance tracking period of the event, calculate the following for each customer participating in the program:

1. Energy Baseline. Pull historical data from each customer's meter to identify their energy use over the past ten days and determine an accurate baseline energy use value for that customer.
2. Energy Savings. Using the energy baseline determined in 1 above, compare the customer's actual energy use during the event to their baseline use and determine the energy savings by subtracting the actual use from the baseline use.
3. Total Rebate. Using the energy savings determined in 2 above and the length of the event, determine the total rebate to be paid to the customer.

See the example provided in OAG-008 for more detailed information on the methodology used to calculate the items listed above.

Provide control event results to each individual customer via the post-event communication device. Provide the Company with a comprehensive report of all event performance by customer and a holistic report of overall customer performance and program effectiveness.

- B. A copy of the RFP is included as OAG-002 Attachment A. The scope of work related to Energy Action Days is on pages 13-17. As described in the petition, given the programs are very similar, the Company believes the chosen vendor will be able to deliver a revised PTR program. We will work with the vendor to adjust the SOW as needed to accommodate any change to delivery.
- C. The nature of the budget categories along with information regarding the cost estimate development for Technology Services, Administration and Marketing is provided below.
- a. **Technology Services** – these expenses are primarily associated with establishing system integration with the selected vendor responsible for implementing a suite of programs. This integration is essential for the exchange of customer information, meter data and analytical results between the organizations. The budget estimate represents the portion of the total cost we anticipated will be allocated to the Energy Actions Day (EAD) program, which we anticipate will be like PPR, based on the overall project budget and the scope of work expected to align with the EAD program.
  - b. **Administration** – this budget is primarily allocated for labor costs associated with internal program implementation. Key activities include managing vendor activities, monitoring and forecasting expenditures and energy savings, developing and coordinating marketing campaigns, processing rebates and ensuring regulatory compliance. Due to time constraints, the Company relied on experience with similar programs, including EAD to inform the cost estimates.
  - c. **Marketing** – this budget category covers expenses related to participant recruitment and enrollment, which are not within the vendor contract. The vendor provides all participant communication once the customer is enrolled. While the Company plans to leverage low-cost channels such as email, a modest budget was included to support a limited direct mail campaign.
- D. The proposed budget reflects a range of factors, making it difficult to estimate an incremental cost of additional participants. However, the Company anticipates the Vendor and Technology Services components of the budget will remain relatively flat regardless of participation. Therefore, aside from rebates, the incremental costs tied to expanding enrollment fall primarily within the Marketing category, and to a lesser extent, Administration.

Since the program has not been approved yet, specific marketing tactics have not yet been developed. However, as described above, the proposed budget assumed using low-cost outreach channels such as email to recruit a first-year enrollment of 15,500 participants, which represents a six percent adoption rate

of the estimated 250,000 eligible customers<sup>1</sup>. While the target market includes current EAD participants, who may be more inclined to enroll, achieving a six percent adoption rate is ambitious given typical email open and click-through rates observed in previous marketing campaigns.

To increase enrollment beyond this estimate, significantly more robust and costly marketing efforts, such as direct mail and advertising will be required. Additional labor resources will also be necessary to design and execute an expanded marketing strategy.

E. As discussed above, the proposed goal of 15,500 is ambitious. The incremental cost to double that to 12 percent (31,000 participants) would impact the Rebate and Marketing components of the budget. A robust marketing plan, which has not yet been developed, would be required to assemble a more accurate cost estimate.

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Department: Customer Energy and Transportation Solutions  
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Date: August 29, 2025

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<sup>1</sup> Customer eligibility was outlined in the initial Petition.

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Xcel Energy Information Request No. 6  
Docket No.: E002/M-24-432  
Response To: Minnesota Office of the Attorney General  
Requestor: Peter Scholtz  
Date Received: August 19, 2025

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Question:

Reference: PTR Program Petition, Attachment D

Do the estimated load reductions from the PTR program have transmission and distribution capacity benefits, beyond the generation capacity benefits provided? Explain why they do or do not.

Any responsive documents must be provided in their unlocked native format with all formulas and links intact.

Response:

At a very high level, a PTR program could have benefits for the transmission and distribution system if it were dispatched in a coincident and locational manner to align with the peaking conditions of these systems. However, the Company did not include transmission and distribution capacity benefit in its analysis because this program will be dispatched for system generation peak which is not the same as the transmission peak or the same as the locationally specific distribution peak. As a result, transmission and distribution impact was not included in the provided cost benefit analysis as provided in OAG-007-Attachment A.

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Xcel Energy Information Request No. 6  
Docket No.: E002/M-24-432  
Response To: Minnesota Department of Commerce  
Requestor: Peter Teigland, Andy Bahn, Rachel Wiedewitsch  
Date Received: July 28, 2025

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Question:

Topic: Xcel's proposed PTR program

Reference(s): PTR Program Petition

Refer to Xcel's PTR Application, p. 12, which states "Assuming a six percent response rate, we expect to enroll approximately 15,500 customers in PTR in the first year."

- a. Please provide all documentation supporting the assumed six percent response rate in live Excel format with all formulas intact.
- b. Does the Company believe that it is possible to achieve a greater response rate? If so, what modifications might be considered to achieve a higher response rate, and what are the costs/benefits of each of these modifications?

Response:

- a. Response rate assumptions were informed by overall market potential and the historical performance of similar programs in the Company's ECO portfolio.
  - b. The Company was unable to fully explore alternative program designs due to time constraints. The proposed design was intended to offer context and clarity for the filing and was informed by design elements commonly used by peer utilities.
- 

Preparer: Kris Kohls  
Title: Regulatory Policy Specialist  
Department: Customer Energy & Transportation Solutions  
Telephone: 612-216-8124  
Date: August 8, 2025

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Xcel Energy Information Request No. 10  
Docket No.: E002/M-24-432  
Response To: Minnesota Department of Commerce  
Requestor: Peter Teigland, Andy Bahn, Rachel Wiedewitsch  
Date Received: July 28, 2025

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Question:

Topic: Xcel's proposed PTR program  
Reference(s): PTR Program Petition

Refer to Xcel's PTR Application, p. 14, which states "Based on other utility experience, the average peak savings per customer is expected to be 0.63 kW, resulting in 2.5 kWh for each 4-hour event, which translates to \$2.50 per event, per customer." Please provide the calculations behind the estimated peak savings per customer of 0.63 kW in live Excel format with all formulas intact.

Response:

The savings estimates were based on common design elements of the utilities benchmarked, as noted in Attachment B of the Company's Petition filed on the above referenced docket on March 17, 2025, along with anecdotal information regarding the average customer rebate per event provided by other utilities, including Connexus. If an average customer rebate/event is \$2.50 and the rebate is \$1/kWh, the kWh/event is 2.5. And, if events typically last 4 hours, and the savings/event is 2.5 kWh, the peak savings is 2.5 kWh/4 hours or 0.63 kW.

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- Not-Public Document – Not For Public Disclosure
- Public Document – Not-Public Data Has Been Excised
- Public Document

Xcel Energy Information Request No. 5  
Docket No.: E002/M-24-432  
Response To: Minnesota Office of the Attorney General  
Requestor: Peter Scholtz  
Date Received: August 19, 2025

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Question:

Reference: PTR Program Petition

- A. Is load reduction more valuable in some parts of the distribution system than in others?
- B. If the answer to (A) is yes, what information would be needed to target the PTR program to customers served by parts of the distribution system in which load reduction would be most valuable?

Any responsive documents must be provided in their unlocked native format with all formulas and links intact.

Response:

Although a PTR program could theoretically serve separate parts of a distribution system, there are fundamental characteristics of the program that make such an application practically infeasible. PTR is a behavioral demand response (BDR) program that has the following characteristics:

1. **Voluntary participation:** The programs are dependent upon individuals choosing to respond.
2. **Inconsistent Behavior:** Customers will respond widely based on time of day, weather, personal schedules and awareness of an event.
3. **Limited Impact:** Behavioral change often results in small incremental reduction in energy use.
4. **Measurement challenges:** It can be difficult to measure and verify the impact of behavioral programs, and these measurements need to be tested overtime within a program.

As a result, reductions from a PTR program are significantly variable and will need to be tested before it can be relied upon as a resource.

- A. Yes.
- B. The Company evaluates the distribution system as part of the Integrated Distribution Plan, and this evaluation shows distribution nodes where the expected load may exceed the capacity of the node. The Company then evaluates these exceedances to see if there is a non-wires alternative (NWA) that could mitigate the exceedance. The Company has not analyzed the PTR program in the context of distribution load reduction. Analysis and usage profiles should be reviewed over a period before conducting that type of analysis.

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