

## Staff Briefing Papers

<b>Meeting Date</b>	<b>September 11, 2025</b>		<b>Agenda Item 2**</b>
<b>Company</b>	Northern States Power Company d/b/a Xcel Energy		
<b>Docket No.</b>	E-002/CI-24-115		
	<b>In the Matter of a Commission Inquiry into Xcel Energy's Advanced Rate Design for Load Management</b>		
<b>Issues</b>	Should the Commission direct Xcel Energy to perform a study evaluating the contribution to Minnesota system costs caused by residential customers with different usage profiles, consulting the Citizen's Utility Board Illinois study as an example?		
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✓ <b>Relevant Documents</b>	<b>Date</b>
CUB and Chan Lab Letter	02/13/2025
CUB and Chan Lab Complaint	03/05/2025
Xcel Initial Comments	04/16/2025
Fresh Energy Initial Comments	06/20/2025
OAG-RUD Initial Comments	06/20/2025
CUB and Chan Lab Initial Comments	06/20/2025
Department of Commerce Initial Comments	06/20/2025
OAG-RUD Reply Comments	07/01/2025
Xcel Reply Comments	07/01/2025
Department of Commerce Reply Comments	07/01/2025

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The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

## BACKGROUND

### I. The Open Data Access Standards

On August 6, 2019, the Citizens Utility Board of Minnesota (CUB) filed a petition to initiate a proceeding to adopt statewide Open Data Access Standards (ODAS or “the Standards”) for the sharing of aggregated or anonymized customer energy use data (CEUD) to qualified third parties, replacing the previous system in which each utility sets its own standards for the release of CEUD. CUB’s proposal addressed the collection and sharing of CEUD in two formats:

1. a 4/50<sup>1</sup> aggregation standard, and
2. a 15/15<sup>2</sup> anonymization standard.

Under the ODAS:

- **Aggregated CEUD** refers to the data of individual customers located in a defined geographical area, which is combined into one collective datapoint per time interval.<sup>3</sup>
- **Anonymized CEUD** refers to data of individual customers, which has been modified sufficiently to prevent the release of personally identifiable information, collected over a number of time intervals from a defined geographical area.<sup>4</sup>

In a November 20, 2020, Order<sup>5</sup> the Commission adopted ODAS for electric and natural gas utilities with more than 50,000 customers, setting statewide rules for third-party access to aggregated or anonymized CEUD, concluding that the adoption of the Standards would serve the public interest.<sup>6</sup> In its Order adopting the ODAS, the Commission noted this information’s ability to “help advance the state’s energy goals, including potential energy savings and reductions in greenhouse gas emissions.”

Notably, the approved ODAS specify that only certain third parties may request CEUD, and in some instances, the Standards specify the use case[s] for which CEUD may be requested. All requests made by third parties not identified by the ODAS are not governed by the ODAS and response to such requests is purely up to the discretion of individual utilities.

Requests made by qualifying third parties may be rejected by a utility when that utility reasonably believes:

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<sup>1</sup> A 4/50 standard means that no dataset may have fewer than 4 customers, and no one customer may account for more than 50 percent of the energy in the dataset.

<sup>2</sup> A 15/15 standard means that no dataset may have fewer than 15 customers, and no one customer may account for more than 15 percent of the energy in the dataset.

<sup>3</sup> ODAS Section II.A.

<sup>4</sup> ODAS Section II.B.

<sup>5</sup> November 20, 2020 ORDER ADOPTING OPEN DATA ACCESS STANDARDS AND ESTABLISHING FURTHER PROCEEDINGS, Docket Nos. E,G-999/M-19-505 and E,G-999/CI-12-1344

<sup>6</sup> Id., p. 6.

1. the data release would create a security risk for the utility, its customer(s), or the public; or
2. that the release would allow for the third party to re-identify customers, violate the terms of the [required nondisclosure agreement], or otherwise use the data in violation of the standards.<sup>7</sup>

Any time a utility rejects a data request, it must provide a timely, written explanation to the requester explaining the utility's reasons(s) for refusing to provide the requested CEUD.<sup>8</sup>

The ODAS have been incrementally expanded over time. While originally having been applied to aggregated whole building data for building owners and benchmarking purposes, the ODAS have since been broadly applied to qualifying requests for aggregated CEUD, and more specifically applied to requests for anonymized CEUD for the purpose of study and program design.

Notable to this proceeding, the Commission's most recent Order in Docket No. E,G-999/M-19-505 also specified that researchers affiliated with a college or university accredited by a national or regional accrediting agency recognized by the U.S. Secretary of Education conducting research in compliance with the federal government's "Common Rule" for the protection of human subjects by an Institutional Review Board were eligible to make requests for anonymized CEUD.

## **II. The Commission's December 5, 2024 Order**

On December 5, 2024 the Commission approved Northern States Power Company d/b/a Xcel Energy's (Xcel) automatic bill credit pilot, which was proposed by the Company and 27 members of its Equity Stakeholder Advisory Group. The pilot was designed to improve affordability for cost-burdened residential customers by testing a geospatial approach to identifying customers in need of assistance. Through the pilot, the Company will leverage geospatial information on household income and customer bills to identify census block groups in Xcel's service territory where average electric energy burden exceeds 4% of median income, and provide these customers with an automatic monthly bill credit.

Order Paragraph 15, of the Commission's December 5, 2024 Order in Docket No. E-002/M-24-173 authorized the Executive Secretary to issue a notice of comment period on whether Xcel should perform a study evaluating the contribution to Minnesota system costs caused by residential customers with different electricity usage profiles. The comment period was also authorized to consider whether Xcel's study should segment its residential customers into groups based on their energy usage profiles, using the Citizen's Utility Board Illinois study as a reference. This Order paragraph was approved in response to stakeholder views that Xcel should utilize the capabilities of its new advanced metering infrastructure (AMI) and conduct an analysis on how residential customers with different usage profiles contribute to system costs.

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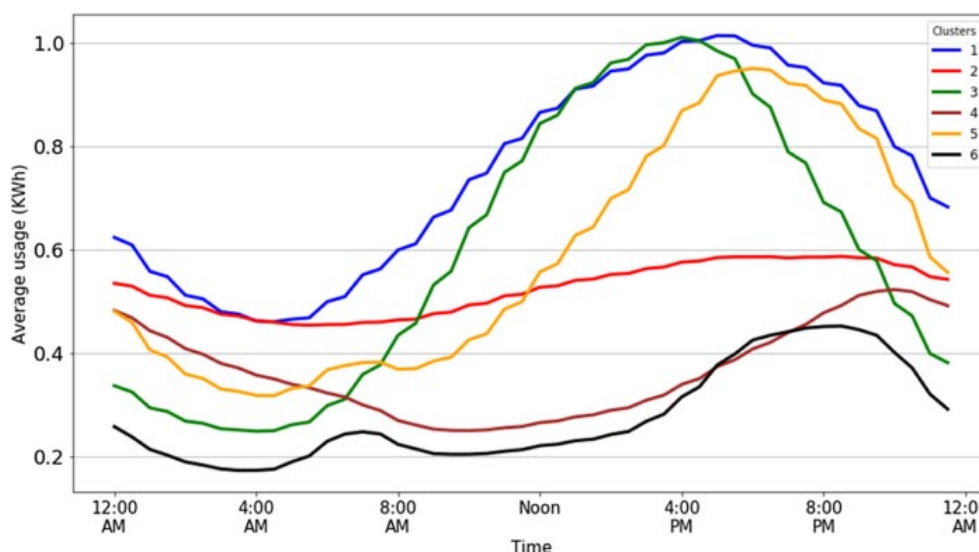
<sup>7</sup> ODAS Section III.C.

<sup>8</sup> ODAS Section III.D.

The Illinois study – *Six unique load shapes: A segmentation analysis of Illinois residential electricity customers*<sup>9</sup> – referenced in the Commission’s December 5, 2024 Order was conducted by CUB Illinois in 2019. The study used the anonymized CEUD of 2.5 million customers to establish average energy use profiles to represent the average energy use of clusters of residential customers. With these energy use profiles established, the team was then able to determine the demographic characteristics commonly associated with each energy use profile. Ultimately, they found that low-income customers used less energy during expensive peak hours. Under a flat rate structure, these low-income customers pay more than the cost needed to provide their electricity, effectively subsidizing higher income residents who use far more energy on average during the peak hours of the day.

Figure 1 below was taken from the Illinois study, and displays various energy use clusters identified, with the red cluster, (cluster 2), representing the load curve of typical low-income customer in the greater Chicago area.

**Figure 1: Average Volume Usage, in kWh, of Six Energy Use Clusters**



### III. CUB and the Chan Lab’s Complaint

On March 5, 2025 CUB and the Chan Lab at the University of Minnesota’s Center for Science, Technology, and Environmental Policy filed a complaint in response to Xcel’s refusal to provide anonymized CEUD. The parties stated that their request was made in a manner consistent with the terms adopted in the Commission’s ODAS.

CUB and the Chan Lab explained that, prior to and separate from the Commission’s interest in Xcel conducting a customer segmentation study, they had begun scoping their own customer segmentation study. This study would mirror CUB Illinois’ study and would use anonymized CEUD from Xcel’s Minnesota residential customers. CUB and the Chan Lab filed a letter in this

<sup>9</sup> <https://www.citizensutilityboard.org/wp-content/uploads/2019/06/ClusterAnalysisFinal.pdf>

docket on February 13, 2025 detailing their efforts to conduct this study, and invited stakeholder feedback. At the same time, these parties requested Xcel provide them with anonymized CEUD following the parameters identified in the Commission's ODAS. They requested:

- Residential CEUD for a minimum of twelve consecutive months and up to thirty-six consecutive months;
- At intervals of 30 minutes;
- At the individual meter level;
- Identified by U.S. Census block group;
- For all households in Xcel's service area for which a minimum of 12 months' AMI data is available; and
- Which satisfies the 15/15 standard of anonymization adopted by the Commission.

This request was rejected by Xcel, who cited:

1. The existence of an anticipated comment period in this docket regarding the development of a similar Xcel-led study; and
2. Generalized concerns about customer re-identification, stating that they will not provide any anonymized CEUD until an "objective basis has been established to address the risk of customer re-identification from anonymized CEUD."<sup>10</sup>

CUB and the Chan Lab argued that the protections outlined in the ODAS are sufficient to safeguard customer privacy and that their data request falls squarely within the scope authorized by the Commission. While utilities may reject a request if they reasonably believe it poses a security risk or enables customer re-identification, they asserted that Xcel's rationale for denial was inconsistent with the ODAS.

First, they noted that the ODAS does not permit denial based on the existence of a related Commission proceeding or a potentially overlapping study, stating that the ODAS does not make CEUD access dependent on the existence of an overlapping docket or advanced Commission approval.<sup>11</sup> Second, regarding re-identification risks, CUB and the Chan Lab contended that Xcel provided no evidence to support its claims and had imposed a blanket rejection on all anonymized CEUD requests until an "objective basis" for assessing risk is established. They argued that Xcel's approach contradicts the Commission's previous determination that the ODAS appropriately balance access and privacy, and pointed out that the Commission had previously considered and explicitly rejected this argument when it expanded the ODAS to include anonymized CEUD requests. Xcel did not explain why this particular request would pose an elevated security risk or offer evidence that it could lead to customer re-identification.

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<sup>10</sup> CUB and Chan Lab Complaint, Attachment B.

<sup>11</sup> Id., p.4.

#### IV. The Current Proceeding

The Commission must make two decisions in the present proceeding.

First, the Commission must decide what action it should take in response to CUB and the Chan Lab's February 13, 2025, and March 5, 2025 filings.

Second, the Commission must consider whether it should proceed with ordering Xcel to perform a study evaluating the contribution to Minnesota's system costs caused by residential customers with different usage profiles. If such a study is ordered by the Commission, it may wish to also:

1. Provide guidance on methodology, contents, and goals.
2. Set deadlines for the study and establish a process for evaluating its results.

Staff's Notice of Comment on this issue was filed on March 17, 2025. The following parties provided initial comments:

- Xcel
- Fresh Energy
- The Office of the Attorney General, Residential Utilities Division (the OAG)
- CUB and the Chan Lab
- The Department of Commerce (the Department)

The following parties filed reply comments:

- Xcel
- The OAG
- The Department

Commission Staff has included a copy of the ODAS as Attachment 1 to these Briefing Papers.

### DISCUSSION

#### I. Responses to CUB and the Chan Lab's Data Request

##### A. Xcel Reiterated Arguments to Deny

Xcel argued that no Commission action is needed in response to the complaint made by CUB and the Chan Lab [**Decision Option 1**]. Xcel continued to assert that it acted in compliance with the Standards when rejecting the data request. The Company reiterated that it will continue to reject requests for anonymized CEUD until an objective standard is developed for sharing anonymized data without the risk for reidentification.

Xcel expanded upon the two reasons it provided for denying CUB and the Chan Lab's data request. The first reason for rejection was the timing of the study and redundancy with the

present comment period. Xcel had been notified that this comment period was imminent when CUB and the Chan Lab made their data request. Xcel explained that its preference was to await the outcome of this comment period before entering an agreement with CUB and the Chan Lab for data, and this preference was communicated to CUB and the Chan Lab. Xcel explained that it preferred to wait because it would be potentially confusing to have two separate but similar studies, and because the comment period may result in guidance from the Commission on study approach.<sup>12</sup> If required to conduct such a study by the Commission, the Company was open to collaborating with CUB and the Chan Lab on it and wanted the ability to consider whether to conduct the study in-house or collaborate with parties.<sup>13</sup>

The second reason for rejection was continued concerns about customer privacy. Xcel argued that CUB and the Chan Lab's complaint down-played the risk to customer privacy and disagreed with CUB and the Chan Lab's characterization of a blanket objection to all anonymized CEUD requests as supplanting the Commission's determination that the ODAS strike an appropriate balance between data access and customer privacy. Xcel used the fact that the Commission's July 5, 2024 Order made only a minor grammatical edit to section III.C of the ODAS – the section that gives utilities the authority to reject requests for CEUD under specific circumstances – as evidence that the Commission supports utilities leveraging their right to reject requests.<sup>14</sup> Further the Company highlighted that the Commission's order clearly states that "if a utility determines that all these protections are inadequate, the utility may refuse individual data requests pursuant to Section III.C. in the Standards."<sup>15</sup>

Xcel explained that despite attempting to secure expert-level analysis of the ODAS, the Department of Commerce was unable to secure such analysis via its 2021 RFP Docket No. 19-505. Given this, Xcel stated that it has reasonable concerns about whether the Standards are sufficient to protect from re-identification.

## **B. Parties Voice Support for the Release of Anonymized CEUD**

The Department, CUB, the Chan Lab, the OAG and Fresh Energy supported ordering Xcel to release the requested anonymized CEUD to CUB and the Chan Lab on the grounds that the request met all the requirements outlined in the ODAS and Xcel's objections to the request to not establish a basis for denying the request under the exemptions provided in the ODAS. **[Decision Option 2].**

### **1. The ODAS Provide Sufficient Protections**

After reviewing the record, the Department recognized the importance of protecting customer privacy, but found the ODAS to provide a "strong and workable structure to protect customer

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<sup>12</sup> Xcel Reply Comments, pp. 4-5.

<sup>13</sup> Id.

<sup>14</sup> Xcel Initial Comments, pp. 11-12.

<sup>15</sup> July 5, 2024 ORDER REFINING OPEN DATA ACCESS STANDARDS, Docket Nos. E,G999/M-19-505 and E,G999/CI-12-1344, p. 5.

data while enabling appropriate third-party access to anonymized CEUD.”<sup>16</sup> The Department listed the following protections currently provided by the ODAS to support its conclusion:

1. The ODAS includes a 15/15 anonymization standard, meaning that any anonymized dataset may include no fewer than fifteen customers, with no individual customer accounting for more than fifteen percent of the energy use.
2. The ODAS permit the use of geographic aggregation, provided that all other anonymization requirements are met.
3. Third parties seeking anonymized CEUD must sign a nondisclosure agreement, with the ODAS listing the minimum requirements of such an agreement.

## **2. The Data Request was Made in Accordance With the ODAS**

The Department and the OAG highlighted that the data request was made in accordance with the ODAS. The OAG highlighted that all researchers who joined the Chan Lab’s data request are affiliated with colleges or universities that meet the accreditation requirements described in the ODAS, and that the data request itself was for CEUD covered under the ODAS. Further, there have been no claims on the record to the contrary, indicating that the requesters were qualified, and the data requested was appropriate.

CUB and the Chan Lab noted that, if a request for CEUD is otherwise eligible under the ODAS, a utility may deny the request only for the reasons outlined in section III.C. Further, CUB and the Chan Lab argued that the utility must also have a reasonable basis for its decision to reject a request that is grounded in its evaluation of the specific data request in question.

## **3. Xcel did Not Adequately Support its Reasons to Reject the Request**

Parties argued that the existence of, or potential for, similar research to be conducted by Xcel as a result of this proceeding is not an approved basis for rejecting data requests under the ODAS. CUB and the Chan Lab explained that the potential for a third party to conduct research similar to what has been or may be required of Xcel is irrelevant to the utility’s obligation to respond to data requests under the ODAS.<sup>17</sup> The OAG noted that, not only is this not a valid basis for denying a data request, but it goes against the public policy reasons for requiring utilities to disclose CEUD in the first place: to allow utilities and the Commission to make more informed, evidence based decisions. The Department concluded that the ODAS do not authorize utilities to deny data requests based on the merit of the intended research or the necessity of a resulting study, and requested that the Commission clarify that speculative or policy-based objections unrelated to data security or customer privacy do not constitute a sufficient basis for denial. **[Decision Option 3]**

Parties also argued that Xcel failed to support its claims of reidentification risk, undermining its refusal to release the requested data. The Department found the protections under the ODAS

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<sup>16</sup> Department Initial Comments, p.6

<sup>17</sup> CUB and the Chan Lab Initial Comments, p.3.



to be sufficient, citing a lack of evidence that the requested data, or the protections granted under the ODAS, pose an exceptional risk to customer privacy.<sup>18</sup> The OAG similarly noted that Xcel's denial lacked an explanation of how the request would create a security risk or lead to reidentification, and did not clarify what an "objective basis" to address the risk of reidentification would be. The OAG concluded that Xcel's reasons for denial were insufficient, and either "unrelated to any valid exceptions or provide only a generalized claim that an exception applies with no supporting evidence."<sup>19</sup> CUB and the Chan Lab added that, under the ODAS, rejections must be based on a "reasonable belief" or risk, and Xcel's unsupported claims fail to meet that threshold.

Finally, parties emphasized that Xcel's arguments had already been considered, and rejected, by the Commission in prior proceedings, but are now being used to justify Xcel's broad denial of anonymized CEUD requests. Fresh Energy noted that Xcel's broad application of Section III.C is supposedly in response to the lack of expert-level analysis in Docket 19-505. This same argument had been used by Xcel in past comment periods in that proceeding, yet, the Commission chose to expand the ODAS in its July 5, 2024 Order, supporting specific use cases for anonymized CEUD. CUB and the Chan Lab pointed to the same Order, where the Commission found that the ODAS "sufficiently reduce the risk of customer reidentification" while striking an "appropriate balance" between facilitating data access and protecting customer privacy.<sup>20</sup> The OAG likewise highlighted that Xcel recycled arguments to justify its denial of the data request, and in doing so, effectively imposed a blanket rejection of anonymized CEUD requests despite the Commission's prior determination that overbroad protections are "detrimental to the public purposes enabled by increased data access."<sup>21</sup>

### **C. Xcel's Response to Those Advocating for the Release of Anonymized CEUD**

Xcel stated that parties were attributing positions to them that their comments did not suggest. Xcel disputed:

- Having ever indicated that it would issue a blanket rejection of all requests for anonymized CEUD
- Using the existence of a related docket as grounds for denying a request for anonymized CEUD

Xcel insisted that its April 16 Comments took no position on CEUD requests in general and did not suggest the Company would deny any request for which there exists a related docket. Xcel claimed that its rejection of CUB and the Chan Lab's request was specific to that request.

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<sup>18</sup> Department Initial Comments, p.7.

<sup>19</sup> OAG Initial Comments, p.6.

<sup>20</sup> July 5, 2024 ORDER REFINING OPEN DATA ACCESS STANDARDS. In the Matter of a Petition by the Citizens Utility Board of Minnesota to Adopt Open Data Access Standards, Docket No. E,G999/M-19-505 and In the Matter of a Commission Inquiry into Privacy Policies of Rate-Regulated Energy Utilities, Docket No. E,G999/CI-12-1344. Page 4.

<sup>21</sup> March 13, 2023 Order, Docket No. E,G-999/CI-19-505, Order Refining Open Data Access Standards, p.14. 2023)

Xcel highlighted prior statements explaining that the Company would decline to provide anonymized CEUD until an objective basis is established to assess the risk of customer re-identification from anonymized CEUD, and explained that privacy risks cannot be eliminated when CEUD leaves the Company. Xcel also reiterated that, if the Commission wanted to remove or limit utilities' ability to deny CEUD requests, it would have made those modifications during its revisions of the ODAS. Finally, Xcel explained that, even when there is no intent to disclose confidential information, accidental disclosures do occur, such as the recent case of Scott Hempling, CUB's expert witness in Docket No. E-015/PA-24-198, who inadvertently shared highly confidential trade secret information from that docket on his public website and LinkedIn before taking steps to recall and limit distribution of the information.

#### **D. Dispute Over Data Access Fees**

Should Xcel be ordered to provide anonymized CEUD, the Company intends to charge a "data access fee" based on the actual costs incurred to create and deliver the requested data, consistent with ODAS section IV.A. Staff notes that Xcel estimated this access fee to be \$34,000 in response to a May 15, 2025 CUB information request.

Fresh Energy raised concerns that Xcel's proposed data access fee is inconsistent with fees charged by comparable utilities. They pointed to Commonwealth Edison (ComEd), which charges up to \$1,300 for similar anonymized data. Fresh Energy also highlighted Xcel's inclusion of \$20,000 in legal fees—costs not contemplated by the ODAS, which permits recovery only for data compilation and anonymization, and requires utilities to reduce fees based on the data's value to the utility.

CUB and the Chan Lab echoed these concerns and requested that the Commission prohibit Xcel from imposing a data access fee for this request [**Decision Option 4**]. Xcel's proposed fee includes:

- \$10,000 for CEUD anonymization (approx. 60 person-hours over 8–10 weeks)
- \$4,000 for census block group identification (approx. 40 person-hours over 5–6 weeks)
- \$20,000 for legal review and contract execution

Based on conversations with ComEd, CUB and the Chan Lab found the proposed fee unreasonable, especially when 24 months of the same data through ComEd (after a public interest discount) would cost \$650. Even though the request in this case spans 36 months rather than 24 months, this difference does not justify a cost more than 50 times higher. They also objected to including legal fees, arguing the ODAS limits charges to "actual costs incurred...to create and deliver the requested data."<sup>22</sup>

Due to these shortcomings, CUB and the Chan Lab urged the Commission to require Xcel to provide the data at no cost, consistent with ODAS Section VI.A(2), which allows utilities to reduce or waive fees when the data has reasonable utility value. They further argued that if the

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<sup>22</sup> ODAS Section VI.A(1)

Chan Lab performs the research instead of Xcel, ratepayers would avoid the cost of the study itself. If the Commission does permit a fee, they recommended a cap of \$1,300, twice what ComEd charges for anonymized CEUD at the nine-digit ZIP code level. **[Decision Option 5]**

### **1. Xcel's Response to Data Access Fee Concerns**

Xcel responded to parties' objection of their data access fee by stating that the fee is allowed under ODAS Section VI.A and that disallowing the fee would contradict the ODAS. However, Xcel conceded that as written, it may be difficult to implement such a fee due to the fact that the ODAS require a fee based on the actual costs incurred by the utility to create and deliver the requested data, but also requires the utility to collect the fee before preparing and supplying the requested data.

If the Commission orders Xcel to proceed with providing the data, the Company would ask that it be allowed to collect an initial deposit of half of the estimated costs before beginning work, then tracking actual costs and collecting the remainder of the data access fee at the end of the process, refunding any over-collected costs. **[Decision Option 6]**

Xcel explained that its preliminary cost estimate reflects the staff time required to compile and anonymize over 19.3 billion data points, apply the 15/15 standard, link the data to census block groups, and legal time to draft and execute a non-disclosure agreement. Xcel emphasized that exact costs are difficult to predict since it has never fulfilled a request of this nature.

Xcel argued that CUB and the Chan Lab's comparison to ComEd's fees, and their proposed \$1,300 cap, is arbitrary and unrelated to the actual costs Xcel would incur. Xcel also defended the inclusion of legal fees, noting that non-disclosure agreements are a mandatory part of anonymized CEUD access. Further, after the Commission modified the ODAS to require all subcontractors or research partners who may have access to the data to execute a NDA with the utility prior to receiving access, the Commission stated "to the extent that this results in increased costs for the utilities, the Commission notes that the utilities can charge a reasonable fee for providing CEUD pursuant to Section VI in the Standards"<sup>23</sup> further linking data access fees to the staff time required to execute them.

While acknowledging ODAS guidance to reduce fees based on the data's value to the utility, Xcel argued that the requested data has minimal value given the Company already offers a Time-of-Use (TOU) rate. Xcel explained that a TOU rate would be the most likely outcome of such a study. Xcel also noted an inconsistency in parties' arguments opposing utility-led studies due to ratepayer costs, while advocating for cost-free delivery of similarly complex data for use in a third-party study.<sup>24</sup>

### **E. Request for Data Delivery in a Timely Manner**

Rather than waiting for a dispute to arise pursuant to section V.A. of the ODAS, CUB and the

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<sup>23</sup> July 5, 2024 ORDER REFINING OPEN DATA ACCESS STANDARDS, Docket No. E,G-999/M-19-505, p.6.

<sup>24</sup> Id., pp.14-15.

Chan Lab requested that the Commission require Xcel to provide the data within 16 weeks of its Order **[Decision Option 7]**. CUB and the Chan Lab explained that this is consistent with the high-end of Xcel's estimated timeline. The parties recognize that, although this appears to be a lengthy amount of time needed to prepare the data, this would be Xcel's first time providing this type of data to a third party.

In response, Xcel explained that this timeline would be feasible due to the fact that NDA negotiations could take place at the same time as the data compilation. Xcel had not previously predicted the amount of time NDA negotiations would take due to uncertainty around the length of time counterparties may need. Given this, Xcel recommended a modification to CUB and the Chan Lab's decision option that would clarify that the data be provided by the later of 16 weeks from the date of this order, or the date when all three universities mentioned in the data request have signed non-disclosure agreements compliant with ODAS Section III.B(2)(v) and (vi). **[Alternative Decision Option 7]**

## II. Should Xcel Proceed with its Own Customer Segmentation Analysis?

### A. A Utility-led Study is Feasible but Unnecessary

Xcel stated it does not believe a study similar to CUB Illinois' is necessary, as similar findings have already been demonstrated for its low-income residential customers. During its 2020–2022 TOU rate pilot, low-income participants showed lower on-peak demand and used less energy overall. While Xcel does not consider the proposed study redundant, it argued that if the results mirrored the CUB Illinois study, the likely outcome would be the implementation of a TOU rate, which already exists. This, Xcel said, makes the study unnecessary.<sup>25</sup> Xcel pointed to several existing rate options that address the needs such a study might identify:

- **Low-Income Low-Usage (LILU):** Offers a 35% per kWh discount to low-usage customers (<300 kWh/month) enrolled in public assistance or earning <50% of state median income. As of the end of 2024, 14,459 customers were enrolled, with projected enrollment of 87,000.
- **Residential TOU Rates:** Allows off-peak energy use at a lower cost. Over 70% of low-income TOU pilot participants saw an average 3% bill reduction. A voluntary TOU rate will soon be available to all Xcel customers.
- **Automatic Bill Credit Pilot:** Recently approved to provide additional support to customers in qualifying Census block groups.

Xcel argued no party demonstrated that the costs and privacy risks of the study were justified, given the likely outcome is a TOU rate already in place. Should the Commission disagree, Xcel expressed openness to conducting an in-house study or collaborating on a study with others.

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<sup>25</sup> Xcel Reply Comments, p.7.

**[Decision Options 8 and 9].**

The Department disagreed with Xcel's analysis, and found that the type of segmentation analysis proposed "offers unique analytical value that compliments, rather than duplicates Xcel's internal efforts."<sup>26</sup> The Department highlighted that Xcel's TOU pilot focused on bill impacts and customer response to price signals while the proposed study would analyze how customer usage patterns align with cost drivers, and explained that the distinction is significant as the proposed study could inform equitable cost-reflective rate design.

However, the Department opposed Xcel being the sole party responsible for performing the proposed analysis. The Department supported CUB and the Chan Lab's study as a necessary effort, and stated that it would not be opposed to Xcel conducting a separate internal study to give the Commission valuable points of comparison.

**B. Party Opposition to a Utility-Run Study**

CUB, the Chan Lab, the OAG, and Fresh Energy supported conducting a customer segmentation study but opposed requiring Xcel to lead the effort, particularly given the availability of a qualified, independent third party **[Decision Option 10]**. The OAG objected to a utility-led study as an unjustified use of ratepayer funds, noting that study costs remain unknown and have not been shown to be reasonable. Even under the Department's proposed methodology (discussed in detail in the following section), the OAG maintained that such a study should not be ratepayer-funded, though Xcel could choose to fund a study using shareholder dollars. Fresh Energy similarly opposed requiring Xcel to conduct or outsource the study, arguing it would introduce unnecessary duplication and delay.

Despite opposition to a utility-led effort, parties reiterated support for the value of a customer segmentation analysis. Fresh Energy emphasized that such a study would help develop more equitable rate designs and contribute to the ongoing evolution of rate policy, even in light of existing programs like LILU, time-of-use, and the automatic bill credit. CUB and the Chan Lab also pointed to the Commission's prior acknowledgment of the value of segmentation analysis in its Order approving Xcel's Automatic Bill Credit Pilot. They highlighted that the proposed study would be conducted by an independent research team at no cost to ratepayers aside from potential expenses related to data provision. The research team expressed a willingness to file the results and release them publicly. Noting that Xcel itself was not supportive of the study or confident in its outcomes, CUB and the Chan Lab argued that meaningful insights may be best generated by researchers subject to academic peer review.

Fresh Energy, CUB, and the Chan Lab explained that the proposed study is substantially broader than Xcel's prior TOU rate pilot. Fresh Energy acknowledged the TOU pilot's findings—namely that low-income customers have lower on-peak demand and lower overall usage—but argued these results are not a substitute for a comprehensive segmentation analysis. They noted the pilot included only about 17,000 customers in two small geographic areas, while the proposed

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<sup>26</sup> Department Initial Comments, p.5.

study would use data from 1.1 million AMI meters across Xcel's entire service territory. CUB and the Chan Lab added that the TOU pilot was narrowly focused on customer response to time-varying rates and bill impacts, while their study aims to offer a holistic understanding of how different residential segments contribute to system costs.

### III. Guidance for a Utility-Led Study

If ordered to proceed with a Study, Xcel stated that the CUB Illinois study methodology is sufficient to guide its efforts. If the scope of a required study were to deviate from the CUB Illinois study, Xcel would require guidance on the desired scope, methods, and objective. However, Xcel recommended starting data compilation for the study no sooner than January 2027 to allow any recommendations from that study to be grounded in at least one full year of AMI data for all of Xcel's residential Customers [**Decision Options 11**]. Xcel explained that as it stands today, residential AMI deployment is about 90% complete, but 12 months of data would only be available for less than 65% of residential customers.<sup>27</sup> Xcel stated that this same recommendation could be applied regardless of who ultimately conducts the study.

Xcel estimated that the study would take between 6 to 9 months to complete, and the results would be filed in the present docket. The Commission could then issue a notice of comment to invite stakeholder input on the study's findings, methodology, and policy implications.

#### [**Decision Option 12**]

CUB and the Chan Lab disagreed with Xcel's argument that the study should not be conducted until AMI rollout is completed and a full year of data is available for all customers. They explained that this delay is unnecessary and irrelevant to Xcel's obligation to release anonymized CEUD in response to their request. CUB and the Chan Lab explained that when Minnesota Power partnered with CUB to conduct a similar analysis, it only had 12 months of data for roughly 40% of its total residential customers, but both the Company and CUB were confident that learnings could be gained from analyzing this significant share of Minnesota Power's residential customers. In contrast, as of April 2025, 12 months of data was available for roughly 65% of Xcel's residential customers.<sup>28</sup>

#### A. Department of Commerce's Recommended Guidance

Should the Commission require a utility-led study, the Department supported Xcel's proposed start date, and filing requirements.<sup>29</sup> However, through its reply comments, the Department provided detailed guidance for the Commission to consider if it were to ultimately require Xcel to conduct a utility-led study.

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<sup>27</sup> Xcel Initial Comments, p.7.

<sup>28</sup> CUB and the Chan Lab Initial Comments, pp.8-9.

<sup>29</sup> Department Initial Comments, p.8

## 1. Study Goals

The Department recommended requiring a clear suite of study outcomes to ensure the results of the study provide optimal outcomes for ratepayers. Ultimately, the Department stated that the goals of a potential utility-led study should be to “understand the heterogeneity of residential load shapes and how these different usage profiles relate to customer demographics, including income, geography, and other demographic characteristics.”<sup>30</sup> Specifically, the Department recommended clarifying that the goals of the study are to explore:

### [Decision Option 13]

- A. How to optimize customer enrollment in affordability programs for low-income customers, promoting participation of customers with the highest bills relative to income;
- B. How to optimize customer enrollment in load flexibility programs and rates (e.g., peak time rebates, demand response, time-of-use rates) based on more granular customer load profiles and locations;
- C. Development of cluster-based load profiles beyond the average residential class load profile to enable more granular bill impacts analysis for existing and future rates and programs;
- D. The impacts of residential class cross-subsidization on low-income customers to inform potential rate design and cost allocation approaches that reduce bills for low-income customers, make electrification more affordable for low-income customers, or advance other equity goals; and
- E. The impacts of electrification for customers with different load profiles and how these impacts may be mitigated through program offerings like managed charging, low-income programs, or rate design.

## 2. Study Methodology and Contents

The Department stated that, should Xcel proceed with the same K-means algorithm used by CUB Illinois in their study, it should consider the number of clusters used and support any decision it makes on this matter [Decision Option 14]. Xcel should also evaluate alternative clusters and consider modeling statistics to determine whether more or fewer clusters are warranted. The Department explained that these considerations are necessary because the K-means algorithm, while widely accepted, requires the number of clusters to be set in advance of analysis instead of being determined through modeling.

## 3. Evaluating Cluster Demographics and Dealing with Heterogeneity

Should Xcel proceed with a utility-led study, it recommended taking a customer-centric perspective to its analysis, in addition to the cluster-centric analysis used by CUB Illinois in its study [Decision Option 15]. The Department explained that by only utilizing a cluster-centric analysis, the utility of CUB Illinois’ results was diminished. For example, several of CUB Illinois’

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<sup>30</sup> Department Reply Comments, p.4



clusters included customers on opposite ends of the socio-economic spectrum. Cluster 2 included customers with high levels of poverty and customers living in affluent neighborhoods, while customers in Cluster 4 were both likely to have no high school degree and likely to hold a postgraduate degree. By focusing too heavily on the clusters alone, the Department argued that CUB Illinois limited its ability to evaluate how residential customers with specific demographic characteristics use electricity.

#### **4. Analysis of Automatic Bill Credit Pilot Approach**

The Department identified an opportunity to investigate the effectiveness of Xcel's Automatic Bill Credit Pilot design through this study and recommended requiring the study to examine the relationship between over-inclusion<sup>31</sup> and under-inclusion<sup>32</sup> under the Automatic Bill Credit Pilot and a range of potential eligibility thresholds to inform future decisions about the pilot or successor programs. **[Decision Option 16]**

#### **5. Rate and Program Design Recommendations**

Based on the results of the study, the Department recommended requiring Xcel to provide recommendations for rates, programs, and policies that align with the goals identified in Decision Option 12, with a focus on low-income customers **[Decision Option 17]**. The Department stated that in developing these rates, programs, and policies, Xcel should consult with the Equity Stakeholder Advisory Group.

### **STAFF ANALYSIS**

The Commission must, at a minimum, respond to CUB and the Chan Lab's complaint by either requiring the release of the requested data or taking no action, and decide whether to require Xcel to conduct a utility-led customer segmentation analysis similar to the analysis conducted by CUB Illinois. Should the Commission order Xcel to conduct its own study, it may then determine whether additional guidance is necessary.

#### **I. Responding to CUB and the Chan Lab's Complaint**

Staff emphasizes that any decision regarding CUB and the Chan Lab's complaint, including taking no action, could be interpreted as a clarification of the extent of utilities' authority under the ODAS to reject requests for CEUD. For example, taking no action may indicate that the Commission supports utilities asserting broad authority through the ODAS to reject CEUD requests, including blanket rejections of all anonymized CEUD requests. On the other hand, taking action to require the release of CEUD would indicate that Xcel's rejection ran counter to the intent of the ODAS, signaling that utilities cannot impose blanket rejections of anonymized

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<sup>31</sup> "Over-Inclusion" in this instance refers to a situation in which households within a qualifying census block group with an energy burden lower than 4% receive a bill credit.

<sup>32</sup> "Under-Inclusion" in this instance refers to a situation in which households within a non-qualifying census block group have an energy burden of more than 4% but do not receive a bill credit.



CEUD requests and are expected to support the rejections they make with evidence that identifies the risks associated with the release of the requested data.

If the Commission agrees with the interpretation provided by the OAG, CUB, the Chan Lab, and Fresh Energy – that Xcel’s rejection was inconsistent with the ODAS, did not include adequate supporting information to justify the rejection, and/or could lead to a blanket rejection of all future anonymized CEUD requests – it should choose to require the release of the requested CEUD.

If the Commission instead agrees with Xcel’s interpretation – that the ODAS grant broad authority to utilities to reject anonymized CEUD requests – it should choose to take no action on this issue, indicating that Xcel operated consistently with the ODAS.

Staff recognizes that Xcel stated it was not attempting to institute a blanket rejection, and that its rejection was based on the perception that the value of data did not outweigh the potential risk to customers due to the existence of a TOU rate. However, Staff notes that despite having made these statements, Xcel continued to lean on broad, generalized claims of risk as the primary evidence for rejection. These same generalized concerns could easily be re-applied to any request the Company receives in the future. This result would function as a “blanket rejection” despite Xcel’s claims that this is not its intended result. Further, Xcel has repeatedly reiterated statements made on the record about its intent to reject any and all requests for anonymized CEUD:

“We take our responsibility to secure and protect our customers’ data very seriously and, to date, we have been very clear that we would decline to provide anonymized CEUD until an objective basis has been established to address the risk of customer re-identification from anonymized CEUD”<sup>33</sup> (Emphasis added by Staff)

In this way, the Company contradicts itself by, in the same filing, stating that it has no intention of establishing a blanket rejection for all anonymized CEUD requests while also reiterating statements which seem to support such an outcome. Staff notes that the above quote does not apply to this specific request, but to all requests for anonymized CEUD.

Further, while Xcel has called for an objective basis to be established to address the risk of customer reidentification across two comment periods, it has not made any recommendations as to how the Commission might take steps to develop such an objective basis, or provided examples of what an objective basis might look like. Xcel has also ignored the fact that when the Company made this same argument in Docket No. E,G-999/M-19-505 when recommending against applying the ODAS to requests for anonymized CEUD, the Commission did not side with the Company.<sup>34</sup> Instead, the Commission chose to apply the ODAS to specific use cases for anonymized CEUD, citing the fact that “CEUD has the potential for significant public benefit

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<sup>33</sup> Xcel Reply Comments, pp. 8-9.

<sup>34</sup> Xcel Reply Comments, Docket E,G999/M-19-505, p.3.

when handled properly,”<sup>35</sup> and that studies using CEUD “can inform the Commission on topics such as customer energy burden, including how future weather trends may impact the energy burden of low-income households.”<sup>36</sup> The Commission also explicitly:

- disagreed with “utilities’ suggestion that the Commission should refrain from applying the Standards to requests for anonymized CEUD”<sup>37</sup> in light of the risk of customer reidentification;
- determined that the “potential benefit from access to this information is significant and outweighs the potential risks;”<sup>38</sup> and
- concluded that “under the current circumstances, the Standards strike an appropriate balance between facilitating access to anonymized CEUD and establishing reasonable protections for customer privacy.”<sup>39</sup>

Xcel also argued that the Commission’s prior non-action regarding Section III.C of the ODAS – the section that grants utilities the authority to reject requests under specific circumstances – was an indication that the Commission is supportive of Xcel’s interpretation of the ODAS and utilities broad authority to reject requests for CEUD. Staff notes that in making this argument, Xcel ignored the fact that the proper use of Section III.C was not a topic of debate in the referenced comment period. Instead, parties recognized the need to correct a grammatical error, which was an uncontested issue. The absence of Commission modifications to Section III.C in that proceeding was not a calculated response to a robust record in which parties requested additional clarification on how Section III.C should function in practice. Instead, it was the result of a lack of discussion or recommendations related to the topic.

## II. Dispute Over Data Access Fee

Should the Commission choose to require the release of CEUD to CUB and the Chan Lab, it must also settle a dispute over the potential data access fee. The ODAS Section VI state:

### **VI. Fees and Cost Recovery**

**A.** *A utility may charge the requester a fee to prepare and supply CEUD. A utility charging a data access fee authorized by this section must:*

- (1) base the fee amount on the actual costs incurred by the utility to create and deliver the requested data;*
- (2) consider the reasonable value of the data prepared to the utility and, if appropriate, reduce the fee assessed to the requesting person;*
- (3) provide the requesting person with an estimate and explanation of the fee; and*

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<sup>35</sup> July 5, 2024 ORDER REFINING OPEN DATA ACCESS STANDARDS, Docket No. E,G-999/M-19-505, p.4.

<sup>36</sup> Id.

<sup>37</sup> Id.

<sup>38</sup> Id.

<sup>39</sup> Id.

*(4) collect the fee before preparing or supplying the requested data.*

*B. Notwithstanding section VI.A, utilities shall provide data aggregated at the county, municipal, and building levels at no charge.*

**Is a Reduction in the Fee Justified Based on the Value to the Utility?**

Section VI.A. (2) requires the utility to consider the value of the data and reduce the fee if appropriate. Staff considers this issue to be largely a policy decision, due to the fact that the Commission is ultimately attempting to determine the value of the requested data and resulting analysis, and whether that perceived value justifies a reduced fee. Although CUB, the Chan Lab, and Fresh Energy made comments specifically disputing the inclusion of legal fees, they ultimately recommended either removing the data access fee all together, or capping it at \$1,300, which is twice the amount ComEd would charge for similar data. They explained that these reductions are warranted because of the money ratepayers will be saving from not having the utility conduct this research and because of the value of the analysis to the utility. Regarding the potential for reduced fees, Xcel minimized the data's benefits primarily due to the existence of a TOU rate. Staff believes either position is supportable: this Commission is known to have implemented many valuable initiatives for low income ratepayers, which may support Xcel's position to not reduce the fee; however, this particular study could offer value, as advocated by the other commenters.

**Is There Proof of Actual Costs Incurred by Xcel, and Should Legal Costs be Included?**

Xcel estimated that creating and delivering the requested data would cost approximately \$34,000, including \$20,000 for legal review and execution of contracts. Xcel stated that legal costs should be included because the issuance of NDAs is a required part of anonymized CEUD access. Further, after the Commission modified the ODAS to require all subcontractors or research partners who may have access to the data to execute a NDA with the utility prior to receiving access, the Commission stated "to the extent that this results in increased costs for the utilities, the Commission notes that the utilities can charge a reasonable fee for providing CEUD pursuant to Section VI in the Standards."<sup>40</sup> Xcel argued that this statement further links data access fees to the staff time required to execute the required NDAs. Finally, Xcel stated that what other utilities charge for data access is arbitrary and does not consider the costs for Xcel to provide this data.

Staff notes that the standards clearly allow for a fee to be issued, and the identification of the actual costs required to produce the data is the first step in setting the fee. Although the Commission indicated a link between data access fees and the NDA process, this link is now being disputed. While the \$1,300 fee may be reasonable for ComEd, Staff understands why this amount would be perceived as arbitrary to Xcel, who has not previously had to respond to this type of request and thus likely has no automated systems in place to produce such data. Unfortunately, the record does not contain information that would allow Staff to compare of how the \$34,000 data access fee compares to the full costs of a utility-run study.

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<sup>40</sup> July 5, 2024 Order Refining Open Data Access Standards, Docket No. E,G-999/M-19-505, p.6.

It is possible that earlier requests for data could be more expensive if there are not automated processes in place to respond to such requests. It is not clear if Xcel has any intention of creating an automated process to provide this data, or if data access costs are anticipated to decrease over time as the Company receives additional requests. Further, with \$20,000 in legal fees, it is not clear that any amount of automation could reduce the cost of anonymized CEUD access to an amount that is reasonably comparable to other utilities. This is due to the fact that automating the data collection and cleaning process would theoretically reduce the fee associated with data collection (\$14,000) but may not similarly reduce the associated legal costs (\$20,000). The record does not address whether the time and cost required to execute NDAs is expected to decline as Xcel receives and fulfills more data access requests.

When making its decision, the Commission should remember that any clarification would apply to all future data access fees issued by utilities, unless it makes statements regarding the value of this specific data and the specific research it is tied to. Should the Commission make no statements regarding the inclusion of legal fees, it is likely that future data access fees will also include legal fees. Staff does not make this statement to indicate a position, but instead intends to ensure Commissioners are aware of how these decisions may impact future data requests.

### **III. Timely Data Delivery**

With Decision Option 6, CUB and the Chan Lab asked the Commission to require the utility to produce the data to the requesters within 16 weeks from the date of the order (should the Commission choose to require Xcel to provide such data).

Xcel stated that this timeline would be reasonable, but provided an alternative that includes flexibility to account for any delays with the NDA process. Staff notes that parties have not had an opportunity to respond to this alternative on the record, and their position may need to be obtained at the agenda meeting.

### **IV. Should Xcel be Ordered to Run a Utility-Led Study?**

No party, including Xcel, advocated for a utility-led study. The Department saw value in a parallel study run by Xcel, but also commented against a scenario in which Xcel is the sole party responsible for the study. The Department stated that it viewed the CUB and Chan Lab study as a necessary effort.

Given the fact that parties were aligned, the Commission may wish to consider this option only in the event that it determines Xcel appropriately rejected CUB and the Chan Lab's data request or otherwise does not order Xcel to provide the requested data. In that case, a utility-led study, either run independently or in coordination with CUB and the Chan Lab, would be the only option available for the Commission if it is still interested in receiving the customer segmentation analysis.

## **V. Guidance for a Utility-Led Study**

Should the Commission choose to require a utility-led study, it may also consider several opportunities to provide guidance.

Parties disputed the need to delay data collection until after additional AMI meters have been deployed and collecting data for at least 12 months. CUB and the Chan Lab explained that the current availability of data exceeds what was available when a similar study was conducted for Minnesota Power. Regardless of the Commission's decision, Staff disagrees with Xcel's suggestion that this requirement should apply to any analysis regardless of whether Xcel is leading it. Staff notes that CUB and the Chan Lab requested data via the ODAS. They do not require the Commission to review and approve of their methodology, because they are not regulated by the Commission. Their complaint is squarely focused on the topic of data delivery under the ODAS.

The Department provided a guidance package for the Commission to consider. Staff notes that because this guidance was recommended in reply comments, parties have not had the opportunity to respond. The Commission may wish to review parties' positions on this recommended guidance at the agenda meeting.

Staff did not identify any immediate issues with the Department's recommended goals for the study. Regarding the Department's recommendations on methodology, most of these appear directed at resolving weaknesses in the CUB Illinois study and at ensuring this type of research continues to progress. Should Xcel be required to follow CUB Illinois' methodology, it is unlikely that these natural progressions would occur, and Xcel's study may contain the same weaknesses the Department identified in the CUB Illinois' study.

The Department's recommendation that a potential utility-led study examine the relationship between over-inclusion and under-inclusion of customers under the Automatic Bill Credit Pilot (Decision Option 15) could yield valuable information that informs future choices about that Pilot. However, there is limited information in the record about how much such analysis would expand the scope of the study, and how the analysis would be done without individual household income data. If the Commission determines that it is not appropriate to direct Xcel to conduct this analysis at this time, the Commission could consider directing such analysis in the future as part of Xcel's biannual reports on the Automatic Bill Credit Pilot. Staff anticipates Xcel's first report will be filed in Docket E002/M-24-173 before the end of 2025.

## DECISION OPTIONS

### Responding to CUB and Chan Lab

#### Data Access

1. Dismiss CUB and the Chan Lab's ODAS complaint against Xcel regarding the anonymized CEUD request.  
[Staff interpretation of Xcel]

#### OR

2. Order Xcel to release the requested anonymized CEUD to CUB and the Chan Lab on the grounds that the request meets the requirements outlined in the ODAS, and that Xcel failed to articulate a "reasonable belief" for how the request would create a security risk for the Company or its customers or result in the third party being able to re-identify customers, as is required for rejections made under ODAS Section III.C.  
[CUB, Chan Lab, Fresh Energy, the Department]

#### AND

3. Clarify that speculative and/or policy-based objections that are unrelated to data security or customer privacy do not constitute a sufficient basis for denying a request for customer energy use data under the Open Data Access Standards.  
[the Department]

#### Data Access Fees *[consider only if Decision Option 1 is selected]*

4. Prohibit Xcel from assessing a data access fee against the Chan Lab for the instant request.  
[CUB, Chan Lab]

#### OR

5. Cap the data access fee at \$1,300 in this instance.  
[CUB *alternative*, Chan Lab *alternative*]

#### OR

6. Require Xcel to collect an initial deposit of half of its estimated costs before beginning its response to CUB and the Chan Lab's anonymized CEUD request. Xcel shall then track actual costs and collect the remainder of the data access fee at the end of the process, refunding any over-collected costs.  
[Xcel]

Timeliness of Utility Response *[consider only if Decision Option 1 is selected]*

7. Require Xcel to provide the Chan Lab with the requested data in a timely manner, not to exceed 16 weeks from the date of this Order.  
[CUB, Chan Lab]

**OR**

**Xcel Alternative 7.** Require Xcel to provide the Chan Lab with the requested data in a timely manner, not to exceed the later of 16 weeks from the date of this Order, or the date when all three universities mentioned in the Data Request have signed non-disclosure agreements compliant with ODAS Section III.B(2)(v) and (vi).

[Xcel]

**Should Xcel Proceed with its Own Customer Segmentation Analysis?**

8. Require Xcel to conduct an independent and in-house customer segmentation analysis modeled after the analysis conducted by CUB Illinois in 2019.  
[Xcel not opposed; Department is opposed to Xcel being the sole party conducting analysis, but is not opposed to a parallel study]

**OR**

9. Require Xcel to collaborate with CUB and the Chan Lab on a customer segmentation analysis modeled after the analysis conducted by CUB Illinois in 2019.  
[Xcel not opposed]

**OR**

10. Do not proceed with an Xcel-led customer segmentation study.  
[CUB, Chan Lab, OAG, Fresh Energy]

**Guidance for a Utility-led Segmentation Analysis**

*Staff notes that the Decision Options in this section must be considered only if the Commission Proceeds with Decision Options 8 or 9.*

11. Require Xcel to begin data collection for its customer segmentation analysis no earlier than January 2027.  
[Xcel, Department]

**AND**

12. Require Xcel to file the results of its customer segmentation analysis in this docket, and delegate authority to the Executive Secretary to issue a notice of comment period to

receive stakeholder input on the survey results, methodology, and policy implications.  
[Xcel, Department]

Department's Recommended Guidance

- 13.** Clarify that the goals of the utility-led customer segmentation analysis are to explore:
- A. How to optimize customer enrollment in affordability programs for low-income customers, promoting participation of customers with the highest bills relative to income;
  - B. How to optimize customer enrollment in load flexibility programs and rates (e.g., peak time rebates, demand response, time-of-use rates) based on more granular customer load profiles and locations;
  - C. Development of cluster-based load profiles beyond the average residential class load profile to enable more granular bill impacts analysis for existing and future rates and programs;
  - D. The impacts of residential class cross-subsidization on low-income customers to inform potential rate design and cost allocation approaches that reduce bills for low-income customers, make electrification more affordable for low-income customers, or advance other equity goals; and
  - E. The impacts of electrification for customers with different load profiles and how these impacts may be mitigated through program offerings like managed charging, low-income programs, or rate design.

[Department]

**AND**

- 14.** Require Xcel to evaluate alternative numbers of clusters rather than defaulting to six clusters.  
[Department]

**AND**

- 15.** Require Xcel to include additional analysis to better understand how customers with different demographic characteristics, including low-income customers, use electricity.  
[Department]

**AND**

- 16.** Require Xcel to examine the relationship between over-inclusion and under-inclusion of customers under the Automatic Bill Credit Pilot through this study.  
[Department]

**AND**



17. Require Xcel to develop rate and program design recommendations based on the results of the study, in consultation with the Equity Stakeholder Advisory Group.  
[Department]

## ATTACHMENT 1: Open Data Access Standards

### I. Purpose and Scope

- A. These standards apply to investor-owned electric or gas public utilities with greater than 50,000 customers within the state of Minnesota. They are intended to set standards for the collection and sharing of customer energy use data (CEUD) for use by third parties, as defined below. In particular, these standards are designed to ensure that:
- (1) Third parties may access aggregated or anonymized, disaggregated CEUD;
  - (2) The data be identified at the closest level of geographical specificity possible to maintain customer anonymity and at the finest practicable time interval;
  - (3) The utility, to the best of its ability, shall in a timely manner furnish this data in a consistent, standard format aligned with industry best practices regarding ease of access and granularity of data; and
  - (4) Unless authorized by a customer, a third party shall not have access to any personally identifiable information for a customer.

### II. Definitions

- A. “Aggregated customer energy use data” refers to the data of individual customers located in a defined geographical area, which is combined into one collective data point per time interval.
- B. “Anonymized customer energy use data” refers to the data of individual customers, which has been modified sufficiently to prevent the release of personally identifiable information, collected over a number of time intervals from a defined geographical area.
- C. “Customer” means a person contracting for or purchasing electric or natural gas service at retail from an investor owned electric or gas public utility with customers greater than 50,000 within the state of Minnesota.
- D. “Customer energy use data” (CEUD) refers to data collected from the utility customer meters that reflect the quantity, quality, or timing of customers’ natural gas or electric usage or electricity production. For the purposes of these Open Data Access Standards, CEUD includes data regarding:
- (1) the amount and timing of energy use and production;
  - (2) peak load contributions and the amount and timing of demand; and
  - (3) rate class.

- E. "Interval data" means CEUD that is collected and compiled for a particular interval of time—including but not limited to intervals of minutes, hours, or day, but no greater than one month—for an individual customer or for a collective data set.
- F. "Personally identifiable information" (PII) means customer data which can be used to distinguish or trace the identity of an individual (e.g., name, social security number, biometric records, etc.) alone, or when combined with other personal or identifying information which is linked or linkable to a specific individual (e.g., date and place of birth, mother's maiden name, etc.).
- G. "Regional Unit of Government" means a regional planning board, regional development commission, and the Metropolitan Council as defined by Minnesota Statute Chapters 462 and 473.
- H. "Tax exempt organization" means a business entity organized in the United States for a nonprofit purpose and that is exempt from paying federal income tax pursuant to the Internal Revenue Code.
- I. "Third party" means a person or entity who requests CEUD other than their own from the utility that maintains the data.
- J. "Utility" means an investor-owned electric or gas public utility with customers greater than 50,000 within the state of Minnesota.

### **III. Third Party Access to Customer Energy Use Data and Customer Privacy Protection**

- A. A utility must prepare and make available aggregated and/or anonymized CEUD upon the written or electronic request of any qualifying third party. The procedure a utility uses to allow a person to request this data must be (1) convenient for the typical third party, and (2) available on the utility's website. Additionally, a utility will make available the contact information for third-party CEUD requests and inquiries on the utility's website. Such sets must consist of the past 24 months of historical CEUD in the smallest interval practicable unless otherwise requested by the customer or authorized third party.
- B. CEUD provided may include aggregated and anonymized sets of customer energy use data.
  - (1) Aggregated CEUD
    - (i) Aggregation standard: An aggregated customer energy use data set may include CEUD from no fewer than 4 customers. A single customer's energy use must not constitute more than 50 percent of total energy consumption for the requested data set.
    - (ii) CEUD data sets containing 3 or fewer customers or with a single customer's energy use constituting more than 50 percent of total energy

consumption may be provided upon the written consent of (1) all customers included in the requested data set, in cases of 3 or fewer customers, and (2) any customer constituting more than 50 percent of total energy consumption for the requested data set.

(iii) Aggregated CEUD may be requested by customer class and/or building or property, defined municipal boundary, county boundary, U.S. Census boundary, or U.S. postal code, provided that no data set violates paragraphs (i) and (ii).

(iv) Aggregated CEUD may be requested by:

(a) Tax-exempt organizations based within the United States;

(b) U.S. Federal Government agencies and subdivisions thereof; State of Minnesota government agencies, boards, and/or commissions; regional or local government entities with jurisdiction within Minnesota; and government entities of federally recognized tribes that share Minnesota's geography; and

(c) Property owners or managers, so long as the CEUD requested applies only to the property the requestor owns or manages.

(v) Aggregated CEUD at other than whole building level shall be provided in a machine-readable format including (at a minimum):

(a) Customer class including, at a minimum, commercial, industrial, and residential. (These classes shall be inclusive of all customers served. Classes may be combined if a dataset violates the privacy screen).

(b) Number of customers by customer class.

(c) Energy consumption (kWh or therms) by customer class.

(d) Number of customers removed from the dataset by customer class.

(vi) A utility will follow this order of operations when applying the aggregation standard. At any point, when the data meets the privacy screen it will be released. Requesters may identify which solutions work for their needs at the time of request.

(a) First seek to report the aggregated CEUD of residential, commercial, and industrial classes separately. These classes shall be inclusive of all customers served.

(b) Notify any customer whose CEUD triggers a privacy screen failure of the data request, the name and contact information of the entity making the request, and the purpose of the entity's request, and allow the customer to give written permission to include their data in the data set.

(c) Combine commercial and industrial classes into one class (nonresidential).

(d) Remove the CEUD of each customer that triggers a failure of the aggregation screen, and report the number of customers excluded from the data set.

(e) If the nonresidential class still fails the privacy screen, report residential customer CEUD only.

(f) If the residential customer class still fails the privacy screen, exclude the residential class and report only commercial and industrial (or nonresidential).

(g) If all classes fail, combine all classes (total energy).

(vii) Notwithstanding paragraphs (i) and (ii), individual customer CEUD that is publicly reported will be included in aggregated data sets, regardless of whether the customer's usage triggers a failure of the aggregation standard, so long as the time scale of the requested data set and the public data set are equivalent.

## (2) Anonymized CEUD

(viii) Anonymization standard: Anonymized data sets may include CEUD from no fewer than 15 customers. A single customer's energy use must not constitute more than 15 percent of total energy consumption for the data set.

(ix) A unique customer identification code shall be assigned to each anonymous customer in a data set. The customer identification code shall remain consistent within the data set and shall not be used in other data sets.

(x) Anonymized data sets may be requested by customer class and/or defined municipal boundary, county boundary, U.S. Census boundary, or U.S. postal code provided that no data set violates paragraph (i).

(xi) Anonymized CEUD may be requested by:

(a) A nonprofit organization that is exempt from taxation under section 501(c)(3) of the Internal Revenue Code and that is subject to the registration requirements of the Minnesota attorney General's office;

(b) U.S. Federal Government agencies and subdivisions thereof; State of Minnesota government agencies, boards, and/or commissions; regional or local government entities with jurisdiction within Minnesota; and government entities of federally recognized tribes that share Minnesota's geography.

(c) Entities that provide or seek to provide demand response, energy efficiency, or other services to a utility, under the condition that the requested data be used for the sole purpose of providing such services or preparing a proposal to the utility to do so.

(d) A researcher affiliated with a college or university accredited by a national or regional accrediting agency recognized by the U.S. Secretary of Education conducting research in compliance with the federal government's "Common Rule" for the protection of human subjects by an Institutional Review Board, as defined by the National Science Foundation 45 CFR 690.

(xii) A utility may refuse to provide CEUD to a third party requesting anonymized data if the third party does not sign a contract with the utility that must at a minimum:

(a) Prohibit the third party from attempting to reverse engineer data or reidentify customers included in a data set;

(b) Require a third-party to disclose all of the third party's employees, subcontractors, or agents with access to the data set at the time of the contract and require this to be updated if it changes during the life of the contract;

(c) Prohibit the third party from disclosing anonymized data except to the third party's personnel or to entities with whom the third party has a contractual relationship for the purpose of conducting an investigation with the anonymized data;

(d) Prohibit the third party from disclosing the CEUD to any individuals unless an individual has first executed a reasonable nondisclosure agreement with the utility consistent with this section;

(e) Hold the third party responsible for its actions with the data;

(f) Require the third party to promptly delete data and notify the utility if it discovers any PII contained in the data set; and

(g) Require the third party to state its intended use for the data.

(xiii) Through a contract described in paragraph (v) utilities may require the deletion of anonymized CEUD in a manner that:

- (a) Allows a third party to retain data for a minimum of five years;
- (b) Allows a third party to comply with any applicable data retention requirements, such as federal grant requirements, Institutional Review Board requirements, or other similar circumstances;
- (c) Allows for a sufficient amount of time for the academic publication process, including analysis, peer review, and final publication; and
- (d) Allows a third party to extend this timeline in order to use anonymized CEUD in a subsequent analysis, so long as such analysis is in compliance with the Standards; or
- (e) Provides an alternative timeframe for data deletion, by mutual agreement of the utility and the third party.

(3) Each utility covered under these standards must file their contract form developed pursuant to 2(v) above with the Commission.

(4) The Commission may set alternative aggregation or anonymization standards upon the petition of any party, as long as those new standards do not restrict public access to energy data deemed in the public interest nor allow for the identification of individual customers within a data set.

- C. Notwithstanding section III.B, a utility may refuse to provide aggregated or anonymized CEUD when it reasonably believes the data release would create a security risk for the utility, its customer(s), or the public, or that the release would allow the third party to re-identify customers, violate the terms of the contract in 2(v) above, or otherwise use the data in violation of these standards.
- D. A utility that refuses to provide requested CEUD for any reason must provide a timely, written explanation to the requester explaining the utility's reason(s) for refusing to provide the requested CEUD.
- E. Notwithstanding any other provisions in law or in these Standards, a utility shall not aggregate or anonymize customer energy use data of any customer exempted by the commissioner of commerce under section 216B.241 from contributing to investments and expenditures made by a utility under an energy and conservation optimization plan, unless the customer provides written consent to the utility, pursuant to Minn. Stat. § 216C.331, subd. 8(d).

- F. Notwithstanding any other provisions in these Standards, a utility shall not aggregate or anonymize the customer energy use data of large industrial or commercial customers with peak demands of 5 MW or more in response to requests for building level or anonymized CEUD.

#### **IV. Data Type and Format**

- A. Utilities will provide CEUD in as short intervals as practicable, with aggregated CEUD reported in intervals no shorter than monthly.
- B. Utilities will work with third parties to provide CEUD in a manner that reasonably facilitates ease of access, ease of CEUD preparation, and comports with accepted data handling standards.
- C. Utilities will clearly indicate how the utility defines which class a customer belongs to when providing CEUD and how customer location is determined.

#### **V. Delivery of Data**

- A. Utilities shall work with third parties to facilitate timely and secure delivery of CEUD. Disputes may be brought to the Commission for resolution.

#### **VI. Fees and Cost Recovery**

- A. A utility may charge the requester a fee to prepare and supply CEUD. A utility charging a data access fee authorized by this section must:
  - (1) base the fee amount on the actual costs incurred by the utility to create and deliver the requested data;
  - (2) consider the reasonable value of the data prepared to the utility and, if appropriate, reduce the fee assessed to the requesting person;
  - (3) provide the requesting person with an estimate and explanation of the fee; and
  - (4) collect the fee before preparing or supplying the requested data.
- B. Notwithstanding section VI.A, utilities shall provide data aggregated at the county, municipal, and building levels at no charge.