

April 20, 2023

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7<sup>th</sup> Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: Comments of the Minnesota Department of Commerce, Division of Energy Resources
Docket No. E002/M-20-86

Dear Mr. Seuffert:

Attached are the Reply Comments of the Minnesota Commerce Department, Division of Energy Resources (Department), in the following matter:

In the Matter of the Petition of Northern States Power Company for Approval of a General Time-Of-Use Service Tariff Compliance Filing.

The Compliance Filing was filed on March 31, 2023 by:

Holly Hinman
Regulatory Manager
Xcel Energy
414 Nicollet Mall
Minneapolis, Minnesota 55401-1993

The Department requests additional clarifying information from Xcel Energy and Opinion Dynamics and will provide final recommendations to the Commission in Party Reply comments. The Department is available to answer any questions that the Commission may have in this matter.

Sincerely,

/s/ CHRIS WATKINS
Public Utilities Rates Analyst

CW/ar Attachment



### **Before the Minnesota Public Utilities Commission**

# Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. E002/M-20-86

#### I. INTRODUCTION

On January 17, 2020, Northern States Power Company, doing business as Xcel Energy (Xcel or the Company), filed a petition and initiated Docket No. E002/M-20-86 requesting that the Minnesota Public Utilities Commission (Commission) approve a new General Time-of-Use (TOU) Service tariff that incorporates a three-period rate as well as make the tariff available early, on an experimental basis, for a limited number of services for the predominant purpose of electric vehicle (EV) charging.

On July 16, 2021, the Commission directed Xcel to implement pilot programs beginning in 2022 to test two rate designs to inform the development of a new default general service time-of-use rate for implementation no later than November 1, 2025 (2021 Order). The Order directed the Company to solicit stakeholder feedback on the design of the programs and submit a compliance filing with a detailed implementation plan for the pilot rates within six months (Compliance Filing).

On January 18, 2022, Xcel submitted the required Compliance Filing discussing implementation details for a General Time-Of-Use Service Pilot. Within this filing the Company requested the Commission approve the following items:

- Pilot implementation plans,
- A new General TOU Service Pilot Program tariff,
- Minor modifications to the General TOU Service rate base system demand rate, and Critical Peak Pricing (CPP) rate proposed rate levels,
- A revenue true-up mechanism, and
- Recommended reporting requirements.

On April 7, 2022, Xcel filed a Supplement filing proposing an exception to the eligibility requirements for a limited number of EV charging providers and EV fleet operators.

On May 13, 2022, Xcel filed a second Supplement filing proposing modifications to several Electric Rate Book pages to align the Company's Fuel Clause Rider with the pilot rate design.

<sup>&</sup>lt;sup>1</sup> In the Matter of a Petition of Northern States Power, doing business as Xcel Energy, for Approval of General Time-Of-Use Service Tariff, Docket No. E002/M-20-86, Order to Conduct Pilot Programs for General Service Time-Of-Use Rates, and Setting Procedural Schedule (July 16, 2021).

Analyst(s) assigned: Chris Watkins

Page 2

On May 25, 2022, the Department of Commerce and the following stakeholders submitted Initial Comments into the record:

- Xcel Large Industrials (XLI),
- Tesla,
- Metropolitan Council, and
- Fresh Energy and the Minnesota Center for Environmental Advocacy (collectively "Clean Energy Organizations" or CEOs).

On June 16, 2023, the Department of Commerce, Xcel, and CEOs filed Reply Comments into the record.

On February 2, 2023, the Commission issued its Order Approving Time of Use Pilot and Setting Additional Requirements (2023 Order). In its Order the Commission approved Xcel's proposed tariff modifications, Fuel Clause Adjustment Rider modifications, Bill Credit proposal, and recruitment plan for pilot participants. Additionally, the Commission directed Xcel to provide another compliance filing by March 31, 2023 that would address reporting requirements identified by the Commission as necessary to bring the Company's pilot in compliance with ordering paragraphs 1(B)1 and 1(B)5 of its 2021 Order. Order Point 2 of the Commission's 2023 Order states:

- 2. By March 31, 2023, the Company must file the following to comply with ordering paragraphs 1(B)(1) and 1(B)(5):
  - a. Additional details regarding the Commission's March 15, 2022 order in Docket No. E002/M-21-101;
  - b. Incremental costs from managing the Minnesota-specific general service TOU rate pilot;
  - c. Detailed information regarding the sample size for each rate design in the pilot, including control groups, a discussion of the number of participants needed to obtain statistically significant results to inform a default general service TOU rate, and the percentage of meters dedicated to EV charging providers and EV fleet operators;
  - d. Assessment of and control for impacts of self-selection biases from the opt-in enrollment structure and incremental benefits of the new meters and price signals;
  - e. Pilot timing considerations regarding deployment of AMI meters with Distributed Intelligence capabilities;
  - f. Baselining procedures for customers without an interval meter currently installed on their premises;
  - g. Design of intake survey and interview content used to contextualize unique usage patterns of participants;
  - h. Identification and control procedures for the impacts from unique pre-pilot usage patterns of individual customers;

Analyst(s) assigned: Chris Watkins

Page 3

 Strategies for implementing commercial and industrial TOU rates based on experience and expertise from the Company's Colorado service territory;

j. The anticipated criteria to be used to call CPP events; and k. Results of Xcel's analysis of dual-enrollment opportunities for select customers already enrolled in demand response programs.

Pursuant to the Commission's 2023 Order, Xcel filed its compliance filing on March 31, 2023 to address the balance of outstanding information requirements missing from its pilot implementation plan as established by the Commission's 2021 Order. Xcel's compliance filing was submitted with a memorandum from Opinion Dynamics, the research and consulting firm contracted by the Company to serve as the third-party measurement and verification (M&V) consultant for the pilot.

On April 7, 2023, the Commission issued a Notice of Comment Period seeking input from stakeholders regarding whether the Commission should approve Xcel's proposed tariff changes, whether Xcel's information provided in its March 31, 2023 compliance filing meets the requirements of the 2023 Order, and soliciting input on what tariff language, if any, requires comment before going into effect.

The Department provides the following analysis and recommendations.

#### II. DEPARTMENT ANALYSIS OF XCEL'S COMPLIANCE FILING

A. ADDITIONAL DETAILS REGARDING THE COMMISSION'S MARCH 15, 2022 ORDER IN DOCKET NO. E002/M-21-101

In March 2022 the Commission issued an Order in Docket No. E002/M-21-101 approving Xcel's proposed suite of Load Flexibility Pilots and Demonstration Pilots. The Order included approval for proposed modifications and clarifications to tariff language for the Peak Flex Credit Pilot to allow customers participating in the General Service TOU Rate Pilot to participate in both programs. Xcel stated in its compliance filing that it also expects limited overlap in program participants between the TOU/CPP pilot programs and the Company's EV Optimization Pilot (now referred to as the Optimize Your Charge program). Xcel reiterated that those customers enrolled in the Peak Flex Credit pilot will not be eligible for participation in the CPP, as these two programs offer similar value for customers for providing the same service of reducing load responsive to a price signal and thus would result in double benefits for the same behavior. The Department agrees that this would be an unreasonable outcome that would obfuscate the data in each pilot program as customers with the opportunity to realize windfall profit from taking advantage of both offerings would frustrate efforts to analyze the relative effectiveness of each piloted approach.

Page 4

### B. INCREMENTAL COSTS FROM MANAGING THE MINNESOTA-SPECFIC GENERAL SERVICE TOU PILOT

Xcel provided cost estimates specifically for conducting recruiting efforts "from a pool of about 1,600 non CPP pilot-eligible customers" for the TOU portion of the pilot. The Company estimated that this cost would be \$5,700 plus contracted labor and included a table with the breakdown of these costs (excluding internal labor) that showed a total incremental cost of \$3,700. It remains unclear whether the internal labor costs make up the balance of the \$2,000 differential, or what the expected costs for contracted labor will be. The Department thus assumes that these costs are not incremental, and requests clarification from the Company in reply comments.

## C. TIMING CONSIDERATIONS REGARDING DEPLOYMENT OF AMI METERS WITH DISTRIBUTED INTELLIGENCE CAPABILITIES

The Company responded that AMI meters are not expected to be deployed across its service territory in time to make a material impact on the pilot, and that participating customers will have either new or existing interval meters. The pilot design thus did not factor in the benefits of AMI meter functionalities, and Xcel stated that those customers enrolled in the pilot who receive an AMI meter will not have the full capabilities of those meters made available to them until the full territory-wide rollout of AMI is complete. Xcel further clarified that its roadmap for Distributed Intelligence (DI) does not include expanding the incremental capabilities of DI-enabled AMI meters to polyphase meters at this time, and for this reason the TOU pilot was not designed to incorporate these capabilities for C&I customers that largely rely upon polyphase meters on their premises.

Xcel acknowledged that AMI meters will provide greater and more granular data that will provide additional insights into customer usage patterns and behaviors and expects this information to be "crucial to developing future TOU rate designs for a larger customer group," and plans to pair this information with learnings from the pilot when preparing future proposals for permanent C&I TOU rate offering.

The Department agrees that including considerations for individual pilot participants with AMI meters installed as they are deployed would introduce unreasonable complexity in the pilot as designed, but cautions that it may be difficult for the Company to meet its Commission-ordered deadline of proposing a new default rate by November 1, 2025 if further analysis of the impacts of AMI meters are to be rigorously evaluated against the findings of the pilot as proposed.

<sup>&</sup>lt;sup>2</sup> Xcel Compliance Filing, at 5.

# D. LESSONS LEARNED FROM IMPLEMENTING C&I TOU RATES IN XCEL'S COLORADO SERVICE TERRITORY

Xcel identified the following issues with its first TOU pilot design in Colorado that informed its design of the Minnesota pilot:<sup>3</sup>

- The pilot did not have a plan to measure load shifting
- Pilot design incentivized low-load factor customers to join to avoid demand charges and realize windfall profits with little to no behavior change required

The Company noted that it launched another TOU pilot for secondary general service C&I customers in Colorado in July 2022 with the following modifications to the original design to control for the abovementioned issues:

- Customer demand limited to 2,000 kW to encourage participation from more customers
- Participants were divided into three different demand size tranches to provide representative distribution of participants
- Implemented a minimum load factor of 30 percent
- Data from newly installed AMI meters will be used to establish a quasi-control group rather than relying on a small random sampling of C&I customers

Xcel cautioned against attempting to apply lessons learned from its Colorado TOU pilot in designing a pilot in Minnesota as key material differences each state such as industries, number of customers, share of load, rate case outcomes, state policies, geography, and climate preclude a true apples-to-apples comparison. The Department appreciates the impacts of these important differences, but also notes that Opinion Dynamics is proposing to use ex ante savings achieved by Xcel's CO CPP rate as one of two primary reference points to determine the range of effect sizes attributed to CPP rates among C&I customers as the consultant has determined that this study "reference[s] the same or similar Xcel Energy customer base examined here."<sup>4</sup>

#### E. ANTICIPATED CRITERIA FOR CALLING CRITICAL PEAK PRICING EVENTS

Xcel stated that it intends to use MISO's curtailment rules as a baseline for the calling of CPP events, in keeping with its historical treatment of its other demand response programs that follow MISO guidance and instructions. MISO guidance will be considered to be the highest priority for events and considered a Tier 1 CPP pilot dispatch, but Xcel acknowledged that historically the Company has received but a handful of MISO-directed dispatches and thus Tier 2 events will be far more likely to trigger the calling of CPP pricing events. Tier 2 events will be called by the Company based upon dayahead load and price forecasts, generator availability, and forecasted renewable resource generation,

<sup>&</sup>lt;sup>3</sup> *Id.*, at 6.

<sup>&</sup>lt;sup>4</sup> Opinion Dynamics Memo, at 3.

Page 6

as well as "information specific to our system conditions" 5 to allow flexibility to call events outside of MISO direction.

With regards to these other factors used to define a Tier 2 event, little information was provided by the Company to allow for a reasonable analysis of the expected time, frequency, and duration of CPP events. The Company stated that it does not have a specific price threshold designed into the pilot to respond to day-ahead energy market prices, but instead intends to rely on the Company's commercial operations group to conduct continuous system monitoring and forecasting to determine if Xcel will benefit from implementing a CPP event. Xcel identified a threshold of day-ahead forecasting indicating likely system peaking conditions or the forecasted total available generation to load ratio falling below 120 percent as situations wherein the Company would consider calling an event.

The Department requests that Xcel provide more concrete examples of situations where a customer could reasonably expect to face a CPP event in reply comments, as this information – and more critically, how it will be communicated to potential participants during the pilot recruitment process – is necessary to ensure enrollment at sufficient levels to provide actionable data for future rate design efforts.

F. ANALYSIS OF DUAL-ENROLLMENT OPPORTUNITIES FOR CUSTOMERS IN DEMAND RESPONSE **PROGRAMS** 

Xcel clarified that its dual enrollment restrictions for customers already enrolled in another demand response (DR) product is applicable to meters, <sup>6</sup> for the following reasons:

- M&V procedures rely on meter readings which do not have the capability to identify individual loads
- Additional sub-metering hardware, software, and labor would be required which would have a deleterious impact on program cost-effectiveness
- Individual loads enrolled in multiple DR programs may lead to the Company failing to meet load reduction obligations to MISO, failing to realize the full benefit of each individual program, and double counting benefits

The Department concludes that the restrictions to individual meters for dual enrollment in DR products are reasonable.

<sup>&</sup>lt;sup>5</sup> Xcel Compliance Filing, at 7.

<sup>&</sup>lt;sup>6</sup> An Xcel customer and their service may be referred to as one of the following hierarchical categories: Customer (can have multiple accounts and premises), Account (only associated with one customer, can have multiple premises), Premise (can have multiple meters), and Meter (single point of electrical service)

Analyst(s) assigned: Chris Watkins

Page 7

## G. APPLYING A BILL CREDIT FOR YEAR TWO OF THE PILOT FOR THE METROPOLITAN COUNCIL'S TRANSIT AUTHORITY DIVISION

Pursuant to the Commission's Order that Xcel evaluate the programmatic and policy implications of extending bill protections to the Metropolitan Council's Transit Authority Division through the second year of the pilot, the Company responded that it finds this to be a reasonable accommodation to further the state and local government's ambitious decarbonization goals. Xcel further argued that this protection should be extended to all operators of public transit systems to charge electric vehicles used to transport transit riders.

The Department concurs with Xcel's assertion that expanding this bill protection to all public providers of transit operators would provide the company with assurances that it would retain the necessary flexibility to enroll and retain these critical transportation providers for the full duration of the program during a dynamic transition period for these organizations. Extending this protection to other public transit providers will provide potential participants who are otherwise disincentivized to join the pilot due to the uncertainties inherent in both the rapidly evolving electric vehicle industry and associated time-responsive rate structures with the confidence to participate and experiment with optimizing operations to respond to these new price signals. The Department finds these benefits to be compelling, and further finds that the public-private partnership evidenced by this preferential rate design for public transit providers to achieve state and local policy goals does not expose the Commission to accusations of deviating from the provision of just and reasonable rates, nor would this agreement be unreasonably preferential or prejudicial.

#### H. REQUIRED TARIFF MODIFCATIONS

The Department reviewed the three proposed modifications to tariff language included in the compliance filing and has determined them to be reasonable.

#### III. DEPARTMENT ANALYSIS OF OPINION DYNAMIC'S MEMO

Generally, the Department finds that the information provided by Opinion Dynamics is responsive toand satisfies the requirements of - the Commission's requirements found in its 2023 Order. Issues
highlighted below in this section are not raised in an attempt to delay pilot implementation or require
further filings from the Company, rather they are raised to highlight specific areas of concern to the
Department in advance of ex post analysis and application of findings to a default C&I TOU rate in
Xcel's Minnesota service territory. It is the position of the Department that the implementation of a
pilot TOU rate for the C&I class is facing ever-tightening time constraints that preempt the design of a
perfect pilot, and the instant docket has already suffered from delays when requisite information was
not made readily available for stakeholder review and comment. The Department's intent in
highlighting these concerns is to provide parties with advance notice of those areas of pilot design
which it believes will require extra scrutiny during ex post analysis and should not be read to infer that
the proposed path is unreasonable with the information available today.

Page 8

#### A. PILOT DESIGN AND IMPLEMENTATION CONSIDERATIONS

Opinion Dynamics prefaced its response to this requirement with a cautionary listing of its known concerns regarding the implementation challenges and potential of the pilot to return actionable results for the design of a default C&I TOU rate. These concerns echo those of the Department as expressed in its initial and reply comments in the instant docket that requested these issues be discussed further on the record.

The consultant recognized the following challenges to obtaining statistically significant estimates of rate impacts realized in the TOU pilot and applying results to a new default rate design:

- Lack of enough eligible participants to create a significant sample pool
- Uncertainty as to the expected effect of the rate on customer usage may result in an increase to the number of premises required
- Key characteristics of pilot-eligible customers (meeting load factor, peak load, and interval meter requirements) differ substantially from the overall C&I customer group

#### 1. Sample size for a statistically significant pilot

Opinion Dynamics stated that Xcel Energy MN serves 2,590 C&I premises that meet pilot eligibility criteria, representing approximately 5 percent of the 49,620 C&I premises served by the Company in 2022. The consultant estimates that Xcel must recruit at least 1,200 premises into the CPP rate and at least 3,100 into the TOU rate to obtain statistically significant results (with an assumed significance level of 0.05 and power of 0.80). The consultant then conducted a power analysis to evaluate the impacts of the anticipated standardized effect size of each rate on the required sample size, noting that when the expected impacts to behavior decrease the necessary sample size to detect statistically significant results increase. The consultant used two studies as primary reference points<sup>7</sup> to derive the standardized effect sizes for each effect size scenario for the TOU and CPP tests, and applied the results to a final power analysis to determine the number of premises needed to detect the effect size on each piloted rate.

The Consultant found that the pilot would need to recruit 1,200 - 5,100 premises onto the CPP rate, and 3,100 - 113,200 premises onto the TOU rate to measure statistically significant results. The large variation in participants required for the TOU rate pilot compared to the CPP rate pilot is attributed to the lower ranges in anticipated reduction in demand (1.2 - 4.2 percent vs. 8.7 - 11.7 percent) and resulting standardized effect size (0.008 - 0.050 vs. 0.039 - 0.080) for the TOU pilot relative to the CPP pilot.

<sup>&</sup>lt;sup>7</sup> Xcel Energy Colorado 2022 CPP Performance Summary (Internal Analysis by Xcel), Brattle Group's 2014 *Demand Response Market Potential in Xcel Energy's Northern States Power Service Territory* 

Analyst(s) assigned: Chris Watkins

Page 9

The required sample size for both pilots to achieve statistically significant impacts is substantially greater than the number of eligible participants, meaning Xcel would need to achieve a >100% opt-in rate for the treatment group and there would be no premises available for assignment into a control group. Thus, the consultant did not consider the ideal size of a hypothetical control group as part of the analysis and recommended a census attempt marketing the pilot to all eligible customer premises to maximize participation. The consultant noted that achieving these enrollment levels would be unprecedented in the industry and suggests that parameters be set for how these findings can be utilized to assess pilot performance using directional, qualitative results in the absence of statistically significant quantitative results.

The Department continues to have concerns regarding the internal validity of a pilot conducted without a robust control group against which treatment impacts on participants can be compared, and welcomes further input from the Company into the record regarding exactly how the consultant's suggested parameters will be implemented for using directional, qualitative results where statistically significant results are not achievable.

#### 2. Anticipated generalization of pilot results to C&I class

After conducting a descriptive analysis of Xcel's C&I customer population the consultant concluded that eligible customer premises differ from the typical MN C&I premise with respect to:

- current rate class participation (eligible premises more likely to already be enrolled in DR programs),
- industry,
- peak demand (much higher at eligible premises), and
- load factor (slightly higher for eligible premises).

The consultant also noted that premises with enabling technologies for responsive load control may be more likely to opt-in to the pilot than those without, necessitating caution in extrapolating the likely outcome of higher impacts among participants with these technologies to those future premises defaulted onto the rate without this technology. The Department anticipates that this effect may be mitigated somewhat after the territory-wide deployment of AMI meters and associated customerfacing functionalities but wishes here to re-emphasize the concerns of Opinion Dynamics that extra care must be taken when designing a default rate based upon pilot findings.

#### B. ASSESSEMENT OF - AND CONTROL FOR - SELF-SELECTION BIASES

The consultant provided a list of industry best practices used to control self-selection biases in the pilot from those customers who are "structural benefiters," defined as those that stand to spend less on electricity bills under the new rate without having to modify their energy usage or demand profiles and are thus disproportionately likely to opt-in (as experienced in Xcel's first C&I TOU rate pilot in Colorado). Best practices currently included in Xcel's implementation plan include bill protections and Account Manager involvement in recruiting stages. The consultant noted that it intends to explore

Analyst(s) assigned: Chris Watkins

Page 10

options to mitigate self-selection biases not addressed in the recruitment processes, and listed the following approaches to make these biases transparent and minimize the effect on savings estimates:

- <u>Descriptive analysis of pilot customers</u>. This will not provide quantitative data for analysis but will prove useful for identifying limitations of the pilot in designing default rates.
- <u>Inverse propensity weighting</u>. May not be applied where there is not a statistically significant sample size and thus not likely to be available for this pilot.
- Quasi-experimental design. Used where randomized control trial is not feasible. Comparison
  premises are identified in the non-participant group to evaluate against pilot participants to
  ascertain behavior changes associated with the new rate. The consultant anticipates challenges
  in identifying these non-participants due to the unique demand patterns, limited pool of
  eligible but untreated customers, and inability to obtain a statistically significant sample pool.
- <u>Pooled models by segment</u>. Results are modeled by customer segment as defined by characteristics such as industry or baseline peak demand to stratify treated premises into smaller, more representative groupings for analysis.
- <u>Individual pre- and post-modeling</u>. Each premise is compared against itself before and after the
  pilot, this allows for the controlling of weather on the rate effect but does not account for selfselection bias.
- Qualitative research. Used where there are an insufficient number of premises to obtain statistically significant results, yielding directional rather than conclusive results. The consultant indicated that primary research instruments (such as surveys and/or interviews) will be constructed to contextualize and triangulate the effects on the results from unique premises characteristics.

Opinion Dynamics indicated that it intends to use a combination of quasi-experimental and matched comparisons when available and comparing the results of each where both methods are viable. The Department remains unconvinced that enough participants will opt-in to the pilot to effectuate matched comparisons (as the consultant indicated in its memo), and requests more detailed information from the Company in reply comments as to the assumptions regarding the number of premises from each representative class segment that would be required to conduct a pooled model by segment analysis. It is the Department's understanding that a similar stratification method was instituted in Xcel's second C&I TOU pilot in Colorado responsive to lessons learned in its first pilot, and the Department is interested in hearing more about what may be the best-case approach in Minnesota to obtain granular, actionable data given the significant identified constraints on the number of eligible participants that may frustrate efforts to identify matched comparison groups.

#### C. BASELINING PROCEDURES FOR CUSTOMERS WITHOUT INTERVAL METERS

The consultant indicated its plan to review and assess the extent to which existing hourly load profile data from premises classified between TOU and non-TOU generalized rate groupings can be used to baseline hourly load profiles for those participants who do not have interval meters currently installed. Given the multiple references throughout the memo to the substantial differences in key characteristics and technology capabilities between eligible and non-eligible premises and overall lack

Page 11

of sufficient participants to realize statistically significant results, the Department is concerned that no discussion was provided on how such an assessment could be performed with confidence. The consultant's plan to supplement this assessment with the National Renewable Energy Laboratory's end-use load profiles data for U.S. Building Stock and annual energy usage averages for buildings from the North American Industry Classification System may provide a more standardized and transparent comparator for building baseline assumptions for the pilot.

#### D. DESIGN OF INTAKE SURVEY AND INTERVIEW CONTENT FOR PARTICIPANTS

Opinion Dynamics has reviewed Xcel's intake survey and concluded that it captures appropriate data for pre-participation contextualization of unique usage patterns of participants. The consultant proposed to survey and/or interview participants throughout the lifecycle of the pilot, beginning with a welcome survey conducted immediately after the pilot rate is implemented. The Department appreciates and encourages this continued involvement with participants, and anticipates useful qualitative learnings from the process that will aid the Company in the future as the default rate is implemented.

The consultant indicated that a 'non-taker' survey may be conducted for customers declining to opt-in to the rate for which they were recruited if recruitment performs poorer than planned. The Department finds that these 'non-taker' surveys should be conducted regardless of the total pilot participation count, as these are the very same customers that understand they are not prepared to subject themselves to time-varying pricing and will provide the Company with important perspective and context for the challenges that will face them in 2025 as a new default TOU rate is implemented. These surveys would also provide valuable lessons learned for future pilot customer outreach and engagement efforts and provide customers with the opportunity to express their specific desires and trepidations regarding future rates and their effect on customer business operations.

#### E. IDENTIFICATION AND CONTROL PROCEDURES FOR UNIQUE PRE-PILOT USAGE PATTERNS

The Consultant plans to process existing customer interval data for accuracy, completeness, and appropriateness to perform data quality assessments and produce summary metrics and visualizations to aid in identifying anomalies and interpreting the resulting data sets. These actions will enable Opinion Dynamics to verify the results of surveys and design more effective models to identify self-selection biases or account for unique characteristics of C&I customers, but no discussion was provided on how this information would be used to control for these instances other than a commitment to "endeavor to model and/or present results by customer segment in order to highlight differing impacts depending on customer size, industry, and other factors," seemingly reiterating a desire to utilize a pooled model by segment approach that the Department supports as a viable alternative in the absence of baseline data and sufficient customer counts to obtain statistically significant results.

<sup>&</sup>lt;sup>8</sup> Opinion Dynamics Memo, at 13.

Analyst(s) assigned: Chris Watkins

Page 12

#### IV. CONCLUSION AND RECOMMENDATIONS

The Department will provide recommendations to the Commission in Party Reply comments, and requests that Xcel Energy provide the following in Reply Comments:

- Clarification of the incremental costs to Xcel, including internal and contracted labor costs, for managing the Minnesota-specific General Service TOU Rate Pilot
- Further discussion or information regarding the Company's current assumptions regarding anticipated thresholds for calling Tier 2 CPP events responsive to forecasted grid or market conditions
- A detailed description of limitations precluding the use of a pooled model by segment analysis for the pilot in Minnesota, if this approach has been determined to be not applicable.