

September 9, 2020

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
Saint Paul, Minnesota 55101-2147

RE: **Comments of the Minnesota Commerce Department, Division of Energy Resources**
Docket No. E002/M-20-592

Dear Mr. Seuffert:

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

Northern States Power Company d/b/a Xcel Energy's Request for Approval of AGIS Initiative Related Tariff Changes and a Variance to Commission Rules.

The Petition was filed on July 10, 2020 by:

Bria Shea
Director, Regulatory & Strategic Analysis
Xcel Energy
414 Nicollet Mall
Minneapolis, MN 55401

The Department recommends that Xcel Energy withdraw its Petition and refile it after additional information is known regarding several aspects of Xcel Energy's Advanced Metering Infrastructure rollout. Alternatively, the Department requests that Xcel Energy provide additional information in reply comments. The Department is available to answer any questions that the Minnesota Public Utilities Commission may have in this matter.

Sincerely,

/s/ ANGELA BYRNE
FINANCIAL ANALYST

/s/ TRICIA DEBLEECKERE
PLANNING DIRECTOR

AB/TD/ar
Attachment



Before the Minnesota Public Utilities Commission
Comments of the Minnesota Department of Commerce
Division of Energy Resources

Docket No. E002/M-20-592

I. INTRODUCTION

On July 10, 2020, Northern States Power Company d/b/a Xcel Energy (Xcel or the Company) filed a Petition requesting that the Minnesota Public Utilities Commission (Commission) approve:

- an indefinite variance to Minnesota Rule 7820.3500 to allow the Company to no longer print the present and last meter reading values on bills provided to customers with advanced metering infrastructure (AMI) and non-communicating Advanced Metering Infrastructure (AMI) meters;
- Xcel's proposed additions to the Standard Bill Forms contained in its Electric Rate Book;
- the new Manual Meter Reading (MMR) tariff proposed for residential and small business customers who prefer to have a non-communicating AMI meter installed at their homes or businesses; and
- a review of the MMR tariff pricing approximately one year after the Company's broad AMI deployment is complete.

II. DEPARTMENT ANALYSIS

A. STATUTE AND RULE

Xcel filed its Petition pursuant to Minn. Rules 7829.0100, subpart 11, which states:

Miscellaneous filing. "Miscellaneous filing" means a request or notice that does not require determination of a utility's revenue requirement. A miscellaneous filing includes a filing involving a new service offering; a change in a utility's rates, services, terms, or conditions of service; a change in a utility's corporate structure, assigned service area, or capital structure, when conducted separately from a general rate proceeding; filings made under the rules governing automatic adjustment of charges in chapter 7825; or any related matter.

The inclusion of a particular type of filing in this list does not require a filing that would not otherwise be required or confer jurisdiction that would not otherwise be present.

The “Miscellaneous Filing” Rule’s statutory authority comes from Minn. Stat. § 216A.05: Commission Functions and Powers. The Minnesota Commerce Department, Division of Energy Resources (Department) agrees that Xcel’s proposal can be considered a request for “a change in a utility’s rates, services, terms, or conditions of service.”

As with all filings that include rate changes, Minn. Stat. § 216B.03 applies, which requires that rates must be just and reasonable, and that any doubt as to reasonableness should be resolved in favor of the consumer.

B. AMI AND AMI-DISTRIBUTED INTELLIGENCE (AMI-DI) BACKGROUND

As part of its overall implementation process to modernize the distribution system, Xcel has established its Advanced Grid Intelligence and Security (AGIS) initiative.¹ Xcel noted that its AGIS Initiative is intended to provide a better customer experience, giving customers more information and control over their energy usage; implementation of AGIS Initiative would enable advanced rate design, as well as other future programs and services. The AGIS Initiative includes several advanced technologies, one of which is of issue here, meter replacement and AMI.

The Commission certified a portion of the AGIS initiative, Xcel’s AMI and Field Area Network (FAN) technologies, in late May 2020 under Minnesota Statute 216B.2425 (July 23 Order).² This statute allows projects that the utility deems necessary for grid modernization, once certified by the Commission, to be included in petitions for cost recovery under the Transmission Cost Recovery (TCR) rider.³ At the time of these comments, no costs have been sought for recovery for the AMI or FAN through the TCR. As part of the July 23 Order requirements, the Department is compiling a report and recommendations for the Commission that explores and recommends options for AMI and FAN performance evaluation, metrics and customer protections.⁴

Xcel’s existing meters, and its current meter reading technology - Automated Meter Reading (AMR) service – are nearing end of life; the vendor will no longer manufacture replacement parts for the system after 2022.⁵ Xcel’s AMI will replace current radio-based meters and will use a new communications network (FAN) to replace the existing cellular-based meter reading capabilities.⁶

¹ Generally, Docket Nos. E999/CI-15-556, E002/M-17-776, E002/CI-18-251, and E002/M-19-666.

² See Docket E002/M-19-666, July 23, 2020 *Order Accepting Integrated Distribution Plan, Modifying Reporting Requirements, and Certifying Certain Grid Modernization Projects* (July 23 Order).

³ See Minn. Stat. 216B.2425.

⁴ See Docket No. E999/DI-20-627.

⁵ Docket No. E002/M-19-666, Xcel Electric’s 2019 Integrated Distribution Plan (2019 IDP) filed November 1, 2019, page 150.

⁶ *Petition*, page 1.

Xcel originally anticipated beginning installation of the AMI meters as soon as 2021 (earlier for persons enrolled in the Time-of-Use (TOU) Pilot) and continuously through 2024.⁷ However, the TOU Pilot has been delayed due to the COVID-19 pandemic⁸ and the scheduled installation of the meters has shifted from the original schedule proposed in the 2019 Integrated Distribution Plan (IDP).⁹ Xcel noted its new schedule in response to the Department's Information Request No. 2.¹⁰

Q2: When is AMI implementation expected to commence? Explain the planned AMI roll out, both in timing and geographical area. Has the scheduled changed from the implementation outlined in the Gersack Direct Testimony Schedule 3, pg. 26, filed in E002/GR-19-564?

Table 1. Minnesota AMI Implementation Plan

Year	Installation Estimate
2019/2020	17,500 (TOU Pilot)
2021	100,000 – 130,000
2022	550,000 – 650,000
2023	530,000 – 600,000
2024	30,000 – 60,000

Response: The AMI preparatory work restarted with planning activities following the Commission decision on May 31 to certify the AMI and FAN deployments. While the specific details for AMI implementation are still in process, we expect the AMI implementation to begin in 2022, at the latest. This does change the AMI implementation schedule that was outlined in Gersack Direct Testimony provided in our November 2019 certification request as part of our 2019 Integrated Distribution Plan in Docket No. E002/M-19-666; we continue to expect the implementation will be complete in 2024. The project team continues to review the plan with a goal of accelerating meter deployment forward to the fourth quarter of 2021. The current draft plan is as follows and is subject to change:

⁷ 2019 IDP, Attachment M1 Gersack Direct, Schedule 3, pg. 26.

⁸ Currently, the TOU Pilot that was scheduled to start on April 1, 2020—and was planned to inform development of additional advanced rate designs—has been delayed due to the COVID-19 pandemic. Therefore, questions exist of the current bill impacts for all customer classes, as well as additional uncertainty surrounding the future customer benefits of advanced rate design. See Department Attachment 2, Xcel Letter [Pilot Postponement](#) filed in Docket No. E002/M-17-775, dated March 18, 2020.

⁹ Table 56 in Xcel Energy's 2019 IDP, pg. 248.

¹⁰ Department Attachment 1 – Information Requests.

Table 1: Current Minnesota AMI Implementation Plan*(Note: subject to change)*

Quarter Block	Year	Quarter	Details	Branches	Meter Count adjusted for growth	5 Min Demand Meters
Block 1	2022	Q1	Mass Deploy	Edina (ED), Chestnut (CH) and Minnetonka (MI) - This includes all current TOU pilot meters	112,500	9,867
Block 2	2022	Q2	Mass Deploy	Edina (ED) and Chestnut (CH)	112,500	9,758
Block 3	2022	Q3	Mass Deploy	Chestnut (CH)	112,500	11,582
Block 4	2022	Q4	Mass Deploy	Minnetonka (MI) and remainder of Edina (ED), Chestnut (CH)	112,500	12,655
Block 5	2023	Q1	Mass Deploy	Newport (NP) and remainder of Minnetonka (MI)	147,500	13,928
Block 6	2023	Q2	Mass Deploy	Rice Street (RS) and remainder of Newport (NP)	147,500	11,711
Block 7	2023	Q3	Mass Deploy	White Bear Lake (WB) and remainder of Rice Street (RS)	147,500	15,103
Block 8	2023	Q4	Mass Deploy	Winona (WN), Red Wing (RW), Faribault (FR), Jordan (JR), Mankato (MO) and remainder of White Bear Lake (WB)	147,500	17,704
Block 9	2024	Q1	Mass Deploy	Bird Island (BI), Maple Grove (MA), Morgan (MG), Montevideo (MV), Wood Lake (WL) and remainder of Faribault (FR) and Mankato (MO)	90,000	12,063
Block 10	2024	Q2	Mass Deploy	Maple Grove (MA)	90,000	6,328
Block 11	2024	Q3	Mass Deploy	Howard Lake (HL), St Cloud (SC), Monticello (MT) and remainder of Maple Grove (MA)	90,000	10,247
Block 12	2024	Q4	Mass Deploy	Albany (AL), Glenwood (GW), Fargo (FA), Grand Forks (GF), Sioux Falls (SF) and remainder of St Cloud (SC) and Paynesville (PA)	90,000	10,469
TOTAL					1,400,000	141,415

*FA, GF and SF meters are physically located in Minnesota but report to respective ND/SD service centers

The Department requests Xcel provide an updated schedule on the TOU Pilot in reply comments, indicating what and how it intends to incorporate TOU Pilot learnings into the 2022 AMI installation plan. If Xcel is aware of any additional changes to the full AMI implementation schedule noted above, the Department requests that Xcel provide an update.

Xcel's has selected Itron's Riva Generation 4.2 AMI meters; these meters have Distributed Intelligence (DI) capabilities. Distributed Intelligence is technology that enables computational processing at a distributed location, *i.e.* at the customer meter. The AMI-DI meters selected by Xcel have several notable advanced technologies: the DI components allow Xcel to utilize selected applications on the meters themselves, the meters can run as a processor, again, at the meter, and the meters have a Home Area Network (HAN) Network Interface Card (NIC) components enabling a meter-provided Wi-Fi connection to enabled home devices. As noted in Department comments in the E002/M-19-666 proceeding, Xcel has entered into contracts with Itron for AMI-DI meters, as well as application development.¹¹

¹¹ See: <https://www.smart-energy.com/industry-sectors/smart-meters/itron-and-xcel-to-build-an-advanced-electrical-grid-of-the-future/>, accessed February 29, 2020 and Department Initial Comments, filed March 17, 2020, in E002/M-19-666, Page 24.

“This collaboration is exciting because we’re not just developing the next generation of smart meters,” said Brett Carter, Xcel Energy’s chief customer and innovation officer, and executive vice president. “Combining forces with Itron allows us to work together on new applications to benefit our customers and build the electrical grid of the future.”

The distributed computing and application capabilities are unlike any AMI proposal put forth in Minnesota and is industry-leading. As noted by Xcel, these meters are like “putting an iPhone on the side of the meter,” are “no different than an iPhone” and are “bleeding edge” in terms of what “any utility is trying to deploy out in the field.”¹² The Riva AMI-DI meters have applications available today in three categories through the Itron application store: 1) Grid Optimization, 2) Consumer Transformation, and 3) DER Integration, and as noted by the Department in the E002/M-19-666 docket, and noted above, Xcel contracted with Itron to collaborate on additional applications.¹³

Additionally, Itron has developed an application development platform (software development kits) in which third parties (ultimately approved by Itron) can submit proposed applications to Itron for utilization in their AMI-DI app-store.¹⁴ It has not been determined which applications will be used on the Xcel AMI-DI meters, who will select the application(s), or what level of control customers will have over which applications are installed on their meters.

As is the case for any utility in its transition to AMI, billing and service agreements will need to be modified to enable and use AMI meters; however, what considerations should be given to AMI-DI meters, their associated policies, or what can be enabled through an application on the meter itself, is different from previous AMI-iterations that have been reviewed and approved by the Commission. This is discussed further below.

C. AMI METER OPT-OUT POLICIES GENERALLY

Nationally, opt-out regulations, state policy, and utility requirements for filing tariffs vary by state, state Commission, and utility. Some states require default opt-in to AMI, some default to opt-out (requiring customer consent), some require AMI opt-in tariff filings to be filed, and some (like Minnesota) have no requirements for opt-in or opt-out policies. The National Conference of State Legislatures (NCSL) conducted an analysis of opt-out policies in the nation in 2019, and the representation of state policies is provided below as Image 1.¹⁵ The proposed opt-out option put forth by Xcel in its Petition is voluntary, and provides structure and framework around the installation of meters in the early stages of the AMI-roll-out, which is useful for customers and regulators (versus not having terms and conditions set upon initial installation).

¹² Roopesh Aggarwal: Senior Director, Business Innovation - Xcel Energy, 2019

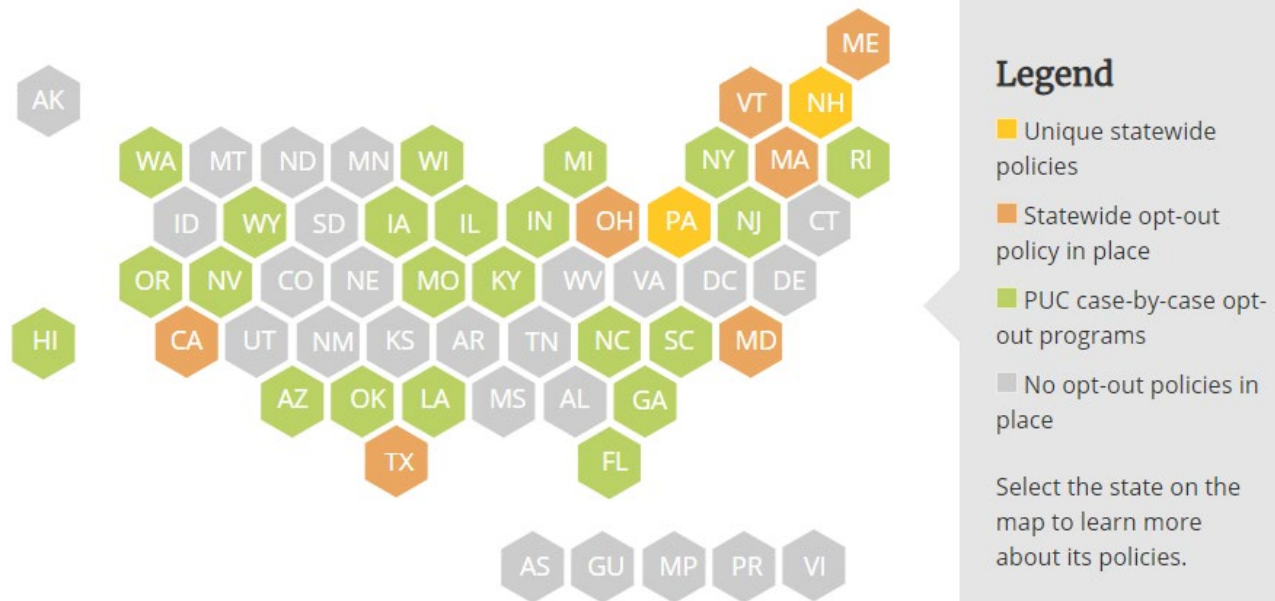
<https://www.youtube.com/watch?v=ASv4w0lwotA>

¹³ www.itron.com/-/media/feature/products/documents/brochure/distributed-intelligence-applications.pdf; Id. 10

¹⁴ <https://developer.itron.com/content/distributed-intelligence-introduction>

¹⁵ <https://www.ncsl.org/research/energy/smart-meter-opt-out-policies.aspx>

Interactive Map: Smart Meter Opt-Out Policies



D. XCEL'S PETITION

1. Billing content exception

Currently, Xcel bills its customers on an incremental approach – usage for each billing period is calculated by subtracting the previous meter reading from the current meter reading. Readings occur approximately once each month. As the Company anticipates transitioning customers to AMI meters, Xcel is programming its system to base customer bills on usage “intervals,” generally 15 minutes.¹⁶ This method will result in a sum of usage over the billing period, rather than using the subtractive method at present. Xcel seeks a variance to Minnesota Rule 7820.3500 that requires the beginning and ending billing period meter reads be presented on customer bills, since this information will not be relevant to billing calculations from AMI meters.

a. Change to Interval Billing and Implementation

Traditional meters measure consumption cumulatively. That is, the meter’s memory mechanically displays one value: cumulative consumption from the installation date of the meter. Consumption is then measured by subtracting the previous meter read from the current one.

¹⁶ Petition, pg.6.

Advanced meters can record consumption continuously for consecutive time periods, commonly known as intervals, which are typically 5, 15, 30, or 60 minutes. This capability allows for the use of time-of-use, interruptible and curtailable rates, plus facilitates participation in demand response programs and demand billing. Xcel has been using these capabilities to bill demand-based business customers and all business customers participating in the Company's Electric Rate Savings demand management program for years.

To accommodate AMI metering, Xcel is modifying its billing system to rely on interval information for all customer billing in order to provide significantly more granular data about electricity usage to customers, and ultimately to facilitate advanced rate offerings. The Company stated that this change will occur on a phased basis. As AMI meters are installed, customers will receive information on the new bill layout, how to understand the Meter Reading Information Section of the bill, and how to access the customer portal to access granular usage data.

Through response to Department Information Request No. 4,¹⁷ Xcel provided information on what would be accessible to the Customer on Day 1 through their customer portal. Xcel noted that customers would have access to 15-minute usage data, updated once a day; those on a TOU rate would be able to see usage on daily and hourly bases (per the TOU pilot). Additionally, Xcel noted, "the Company plans to provide customers with the ability to access near real-time energy usage information via smart devices within the customer home via a Home Area Network [HAN] solution."¹⁸ At this time, there does not appear to be firm information about the HAN solution available in this docket - nor a clear understanding of when that would be provided to customers.¹⁹ As with the *Grid Education and Customer Communication Plan* discussed below, the Department would expect additional information to be provided as part of the Transmission Cost Recovery Rider petition expected on November 6, 2020, however, Xcel has noted that the information that will be provided in that filing will be somewhat limited:

Our filings leading up to the Commission's certification decision on our AMI and FAN investments provided robust information that met all of the information requirements for an advanced grid cost recovery proposal. We therefore expect the information we will submit in conjunction with our cost recovery request for AMI and FAN will be largely the same, regardless of the procedural path. ... This would allow parties ample time to consider the relatively narrow set of additional information the Commission specified we include with our cost recovery request in its July 23, 2020 Order certifying AMI and FAN.²⁰

¹⁷ Department Attachment 1 – Information Requests.

¹⁸ *Id.*, page 3.

¹⁹ Department Attachment 1 – Information Requests, 3 and 12.

²⁰ See Docket No. E002/M-20-680, page 7.

The Department requests that Xcel provide additional information in reply comments about the HAN functionality, customer access, opt-out/out-in provisions, timing, and where and when information on that capability will be provided through Commission dockets, including whether Xcel believes Commission approval is necessary prior to offering the service.

Xcel's discussion regarding the use of interval billing, and use of fifteen-minute intervals, appears consistent with earlier proposals and filings from other Minnesota-regulated utilities to use fifteen-minute intervals for billing purposes;²¹ however, Xcel's petition indicates that "generally" Xcel will be reading meters on a 15-minute basis, but reading and access could vary - to less often - or more often - as the meters have the ability to monitor usage on a real-time basis. Frequency of meter reading historically has been restricted to a utility's available communication bandwidth and the associated data transfer costs. Here, with Xcel's use of a private field-area-network, real-time data transfer could be used by Xcel, and will likely be used in the future with even more granular rate designs. The Department notes that there are privacy, cybersecurity, and customer data access issues that arise with Xcel's access to home energy usage on a real-time basis.

The Department requests that Xcel provide additional discussion in reply comments regarding whether a customer would be informed of how often their meter is being read by Xcel, and if so, how, when, and how often would the customer be informed of any reading interval change.

a. Proposed Tariff Sheets

As part of its Petition, Xcel proposed to update its Tariff Book with customer bill forms that reflect the new reading information for interval billing. Both the current and new interval customer bill forms would remain in effect during the roll out of AMI metering. Once all customers are on AMI meters and interval billing, the Company proposed to submit a compliance filing that cancels the now current Tariff Sheets.

Since the Department is seeking further information in reply comments regarding Xcel's transition to interval billing, the Department will provide recommendations regarding the Company's proposed tariff sheets after reviewing the additional information.

b. Variance to Minn. Rule 7820.3500

In order to implement the new interval billing, Xcel requested a variance from Minnesota Rule 7820.3500 that requires the Company to print the meters' previous and current register readings on customer bills. Due to the Department seeking additional information and discussion in reply comments, it will conduct the review of the Minnesota Rule 7829.3200 criteria for a variance from the Commission's Rules at that time. Based on the Department's preliminary analysis, it appears that Xcel's variance request is reasonable; however, the Department may recommend that the Commission place certain conditions on the approval, based on the additional information Xcel provides.

²¹ See Docket No. E111/M-17-821 and M-18-640.

2. *Customer opt-out option*

It is unclear to the Department what level of information a customer would receive pre-AMI-DI installation (and more importantly pre-opt-out/opt-in decision) about the potential uses and capabilities of the AMI-DI meter, the implication to the utility of having access to a customer's real-time energy use and disaggregated energy usage (customer access to and election of tiered service options (or tiered data collection) in the future (or not), or whether there is the potential for a reduced cost opt-out option or options.

Xcel's *Advanced Grid Customer Education and Communication Plan*²² provides some detail on what Xcel proposed to provide to customers prior to their decision to opt-in or opt-out of a AMI-DI meter however, that plan indicates that pre-AMI-DI installation customers will only receive information on the: 1) benefits of smart meters, 2) meter installation logistics, and 3) opt-out information (and seems to be lacking information about visibility into home usage, rights to the customer meter, customer data usage, data privacy and security changes, etc.). The Department sought information on whether Xcel would file additional information or seek input on its *Grid Education and Communication Plan* filed in E002/M-19-666, Attachment M1, Schedule 8; Xcel provided the following:²³

As customer communications will be part of the costs we seek to recover in that proceeding, we intend to outline our customer communication and other implementation plans as part of that filing. As an outcome of the Commission's AMI and FAN certification decision, we note that we are also required to submit a filing outlining preferred procedural paths forward 60 days in advance of a petition seeking rider recovery for these investments. We expect one of these paths to include technical conferences or workshops where we would engage with stakeholders on key aspects of our AMI and FAN implementation, including how we expect to engage with our customers.

Since AMI-DI metering and billing will be a significant change to traditional utility billing, and the scope of capability of the AMI-DI meters is much greater than AMI meters used to date, the Department issued Information Request No. 12 requesting additional information on Xcel's ability to provide other opt-out or tiered service options for use of an AMI-DI application itself. Additionally, the Department asked whether any potential (or planned) tiered service option information would be available to customers prior to AMI-DI installation (and prior to their decision to opt-out or opt-in to the AMI-DI meters) since having full information on the functionality and use of the AMI-DI meter may affect a customer's decision to opt-in or opt-out.

Last, while AMI-DI meters are new and industry leading, the Department has solicited information from Xcel on whether there are any methods by which the meters could remotely "turn-off" a service or function beyond the normal interval usage readings.

²² 2019 IDP, Attachment M1, Schedule 8, pg. 2-6 and Schedule 3, pg. 55-57.

²³ Department Attachment 1 – Information Request No. 3.

Please explain any alternative opt-out options considered for use of the Itron Riva Generation 4.2 AMI meters. Will customers have alternative options for AMI participation, beyond opt-in or opt-out of the meters? If so, what is participation levels and functionality levels are contemplated?

Where and when would those options be proposed or presented to the Commission? Where and when would those participation options be proposed or presented the customer?

Specifically, if a customer elects to have an AMI meter installed, will there be options proposed to opt out of:

1. Data collection on their home-load?
2. Home-load disaggregation data?
3. Home-load disaggregation data analytics?
4. HAN compatible Network Interface Card usage?
5. [D]ata collection over and above standard load and load profiles gained by real-time or interval-based readings?
6. Data analytics over and above standard load and load profiles gained by real-time or interval-based readings?
7. Any other functionalities not listed above?

Is there a method by which the meters could remotely 'turn-off' any functionality beyond interval usage reading? What functionalities could be turned off remotely? Is there a method by which the meters could manually 'turnoff' any functionality beyond interval usage reading? What functionalities could be turned off manually?

Response:

The only opt-out option we currently intend to offer in conjunction with our AMI implementation is the Manual Meter Reading Service we have proposed in this docket. The collection of load profile data from our standard AMI and non-standard, in the case of customers opting for the Manual Meter Read Service, meters will be used for billing and operational needs and will not have an opt-out provision for customers. Beyond the load profile data to support customer billing, we expect to configure the meters to send operational alerts if certain grid conditions are met. Examples of these include:

- Voltage out of range,
- High current (current above designed service limit),
- Power outage and restoration,
- Theft or tampering detected.

On a case-by-case basis, we may also perform on-demand power quality readings to assess service quality and for troubleshooting purposes. We do not plan to offer an opt-out of the data collection associated with these billing and operational-related functionalities.

Beyond these core service functionalities, we are continuing to evaluate and develop potential customer programs and services consistent with the Customer Strategy we provided in conjunction with our 2019 Integrated Distribution Plan in Docket No. E002/M-19-666. To the extent a customer program or service requires Commission approval, we will submit a proposal in the form of a miscellaneous filing. Finally, we note that from a technical perspective, “turning off” individual functions in the meter would require the creation of custom meter programs and configurations, which we do not contemplate doing at this time.

The Department requests that Xcel provide in reply comments specific detail on what information will be provided to customers pre-AMI-DI installation. The Department also requests that Xcel provide information on estimated costs to develop and operate an AMI-DI application that allows the AMI-DI to function as a traditional, monthly-read meter and a discussion of other opt-out customer options considered and rejected.

a. Optional Manual Meter Reading Service

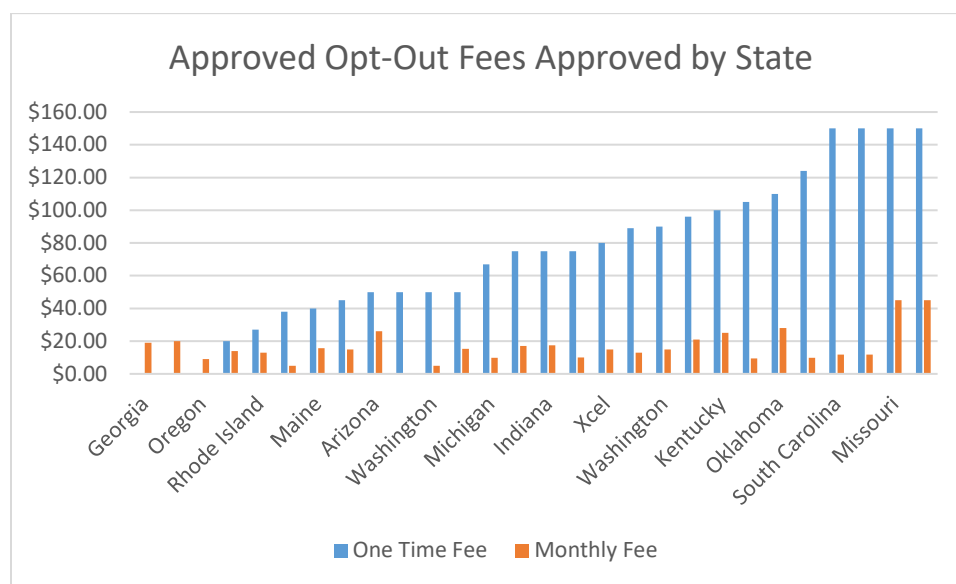
The Department reviewed the costs of the MMR service proposed by Xcel. Through Department Information Request No. 11, Xcel noted that there was an error in its Petition, and that the average Meter Install/Removal Charge of the surveyed utilities was actually \$124 (install) and \$25 (monthly charge).

Table 1: Xcel Energy AMI Opt-Out Utility Survey Results (2019)

	Meter Install/ Removal	Monthly Manual Read
Texas	\$201.58*	\$23.95
Texas	\$105.00	\$36.00
Chicago	\$77.47	\$21.53
Kansas/Missouri	\$150.00	\$40.00
Florida	\$89.00	\$13.00
North Carolina	\$150.00	\$11.75
Maryland	\$80.00	\$20.00
Missouri	\$150.00	\$45.00
Oklahoma	\$115.00	\$15.66
Average	\$124.23	\$25.21

** Note: this result averages three different Meter Install/Removal rates from a single utility with different charges based on meter type.*

Xcel's surveyed data for installation and monthly charges is consistent with the information compiled by the National Conference of State Legislatures. Below is a table of the charges collected by the NCSL in its survey combined with Xcel's proposed charges. The chart shows that Xcel falls in the middle tier of the proposed charges (NCSL's data included both utility specific charges and state-based required charges).²⁴ The Department concludes that Xcel's estimated charges are reasonable, however, that analysis is incomplete without additional information on whether there is the potential for digital opt-out solutions on the AMI-DI meter and if those solutions are lower cost. Those digital-based options are unlikely to be available for AMI-only (without DI) and therefore would not have been contemplated in previous state or utility AMI-decisions on opt-out charges, and thus the presented cost data may not be fully representative of Xcel's potential opt-out costs.²⁵



As noted in the Petition, these costs are estimates and will be reevaluated by Xcel once the final MMR meters are selected, which is anticipated to be in September 2020 as Xcel noted in response to Department Information Request No. 6. Xcel indicated it would provide an update on the selected MMR meter in the future cost recovery request or the compliance filing it proposed to file in this docket (that would provide actual meter reading costs associated with AMI-opt-out). If the petition is approved, the Department supports a compliance filing in this docket, as well as information filed in the future cost recovery request.

²⁴ <https://www.ncsl.org/research/energy/smart-meter-opt-out-policies.aspx>

²⁵ The Department notes that in the NCSL data, cited above, another state required the utility to turn off the wireless signal from the meter to avoid installing an entirely different meter, as Xcel proposes. "Most states with opt-out programs either require that a customer allow a smart meter to be installed or pay to opt-out. Maine, however, offers a suite of options: Customers can retain an analog meter for a one-time fee of \$40 and a monthly fee of \$15.66; they can choose to have a smart meter's transmitter turned off for a one-time fee of \$20 and a monthly fee of \$13.98; or they can choose to pay for the cost of relocating the meter farther from their home." <https://www.ncsl.org/research/energy/smart-meter-opt-out-policies.aspxhttps://www.ncsl.org/research/energy/smart-meter-opt-out-policies.aspx>

b. Implementation and Proposed Tariff Sheets

Xcel proposed to implement its proposed customer opt-out and MMR tariff, with customer education, as it rolls out its AMI meters. Specifically, Xcel stated,

When deploying meters, we will provide customers with increasingly detailed communications in a 90-60-30 days before AMI meter installation cadence. Among other things, these pre-AMI deployment communications will contain instructions for customers about where to find more information about the AMI meters, as well as how to opt-out of receiving one.

Once AMI meters are broadly installed, customers will still have the option to opt out of having an AMI meter and will follow a similar process to elect the proposed manual meter reading service. ...customers that already have an AMI meter installed and want it replaced with a non-standard meter will be charged an Installation Charge for the Company to perform the meter exchange, in addition to the monthly meter reading Fixed Charge....

As discussed in the previous two sections of these Comments, the Department has several outstanding questions regarding Xcel's proposed customer opt-out option and has requested that Xcel address those concerns in reply comments. The Department will provide recommendations regarding implementation and the proposed opt-out tariff after evaluating the Company's response.

3. Effect of Change on Xcel Energy Revenue

In its Petition, Xcel stated,

There is no change to Xcel Energy revenue as a result of the proposals we are make [sic] in this Petition. This filing proposes changes to our tariffs and a variance from the Commission's Rules in order to implement interval billing for customers and facilitate customer choice with regard to having an AMI meter installed. The customer charges associated with the optional AMI opt-out Manual Meter Reading service are cost-causative and designed to be revenue-neutral to the Company.

The Department issued Information Request No. 7 regarding installation and removal charges; including specifically requesting the amount of revenue that Xcel estimates it will collect from opt-out fees and Information Request No. 13 regarding monthly and one-time meter reading fees.²⁶ As the estimates to revenue are estimated based on anticipated levels of opt-out customers, and may be adjusted based on the actual percentages, as well as Xcel offering to provide a compliance filing on its processes and costs once actual program data has been collected, the associated costs seem reasonable as estimates. Xcel stated:

²⁶ Department Attachment 1 – Information Requests.

As we do with all of our costs, yes, we intend to continue to track our metering and meter reading costs as we transition to AMI. For purposes of our opt-out proposal, our Petition explained that we will track the costs we incur in relation to the revenue we collect from AMI opt-out customers, and we will submit a compliance filing to the Commission. To the extent costs and revenues from our opt-out service require adjustment, we will propose a change to the AMI Opt-Out Tariff as part of that compliance filing. We expect the subject of overall AMI costs and savings will be addressed as part of the Company's AMI and FAN investment cost recovery proposal.

The Department recommends that the Commission require Xcel to file estimated and actual revenue information (information included in Information Request Nos. 6, 7, 9, 10, 13, and 14) in any upcoming cost-recovery requests for AMI and FAN.

If this instant petition is considered for approval, the Department recommends that Xcel also include information on costs and savings resulting from opt-out customers in the compliance filing Xcel proposed in this petition, including information on the actual costs for the MMR meters, operational costs, and all other incremental changes to revenue associated with AMI opt-out customers.

III. CONCLUSION AND RECOMMENDATIONS

The Department agrees that Xcel Energy will need Commission approval of a variance to Minnesota Rule 7820.3500 in order to implement AMI-DI meters. However, at this time, the Department concludes that it is premature for the Commission to consider Xcel's Petition for several reasons:

1. The AMI-DI meter installation has been delayed to 2022.
2. There is insufficient information proposed to be provided to customers in order for customers to make an informed decision, given the lack of information regarding what capabilities, uses, functionalities the meters will have as well as unclear messaging around customer rights to meter and meter use, privacy, security, and access to data. Xcel noted that it would be providing additional information as part of its cost recovery filing, anticipated for November 6, 2020; however, that information is not in this record to date and Xcel has noted it is expected to be limited.
3. There is insufficient record information on whether there are other potential solutions using the AMI-DI application to reduce functionality of the meter and provide more opt-out service options to the customer.
4. Final MMR meters will be selected in September 2020 and the Commission's decision would be informed by the actual cost (not estimated) of the MMR meters as well as additional information expected to be filed on November 6, 2020 in Xcel's TCR Rider petition.

With delays to the installation timeline, and many details yet to be fully developed, the Department recommends that this Petition be withdrawn and re-filed in early 2021. This delay would allow for additional information to be provided in the cost recovery proceeding on certain functionalities of the AMI-DI meters, the customer information plans, service offerings, or other information that may be relevant to ensure the information is available to customers before determining whether to opt-in or opt-out of the AMI-DI meter installation. A filing in early 2021 should be able to be reviewed and a Commission decision made prior to AMI installation in early 2022.

Should the Xcel decline to withdraw its Petition, the Department will offer recommendations after reviewing Xcel's reply comments. The Department requests that Xcel provide the following additional information:

- **An updated schedule on the TOU Pilot, indicating what and how Xcel intends to incorporate TOU Pilot learnings into the 2022 AMI installation *plan*. If Xcel is aware of any additional changes to the full AMI implementation schedule noted above, the Department requests that Xcel provide an update.**
- **Additional information about the HAN functionality, customer access, opt-out/out-in provisions, timing, and where and when information on that capability will be provided through Commission dockets, including whether Xcel believes Commission approval is necessary prior to offering the service.**
- **Additional discussion regarding whether a customer would be informed of how often their meter is being read by Xcel, and if so, how, when, and how often would the customer be informed of any reading interval change.**
- **Detail on what information will be provided to customers pre-AMI-DI installation.**
- **Information on estimated costs to develop and operate an AMI-DI application that allows the AMI-DI to function as a traditional, monthly-read meter and a discussion of other opt-out customer options considered and rejected.**

Further, the Department recommends that the Commission require Xcel to file estimated and actual revenue information (information included in Information Request Nos. 6, 7, 9, 10, 13, and 14) in any upcoming cost-recovery requests for AMI and FAN.

Finally, the Department recommends that Xcel also include information on costs and savings resulting from opt-out customers in the compliance filing Xcel proposed in this petition, including information on the actual costs for the MMR meters, operational costs, and all other incremental changes to revenue associated with AMI opt-out customers.

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Xcel Energy	Information Request No.	1
Docket No.:	E002/M-20-592	
Response To:	Department of Commerce	
Requestor:	Angela Byrne / Tricia DeBleeckere	
Date Received:	August 21, 2020	

Question:

Topic: AMI Implementation

Reference(s): Petition, page 4

Request:

Please define “broad AMI implementation” for purposes of Xcel’s implementation of the tariff. What are the factors that will trigger Xcel to implement the tariff?

Response:

Our reference to “broad AMI implementation” means the installation of AMI meters to replace our existing meter population on a broad/overall scale. We intend the tariff to be effective at least 90 days prior to our installation of the first AMI meter as part of the overall changeover from current meters to AMI. This timing will allow the Company the ability to offer the AMI opt-out option as part of its pre-implementation customer communications.

Preparer:	William Paul Davis
Title:	Director
Department:	Meter Reading
Telephone:	715-456-1060
Date:	August 31, 2020

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Xcel Energy

Information Request No. 2

Docket No.: E002/M-20-592

Response To: Department of Commerce

Requestor: Angela Byrne / Tricia DeBleeckere

Date Received: August 21, 2020

Question:

AMI Preparation and Implementation

Reference(s): Related Dockets

1. Please discuss when Xcel restarted work on AMI preparatory work, as noted in Xcel's Supplemental Comments, in Docket E002/M-19-666.
2. When is AMI implementation expected to commence? Explain the planned AMI roll out, both in timing and geographical area. Has the scheduled changed from the implementation outlined in the Gersack Direct Testimony Schedule 3, pg. 26, filed in E002/GR-19-564?

Table 1. Minnesota AMI Implementation Plan

Year	Installation Estimate
2019/2020	17,500 (TOU Pilot)
2021	100,000 – 130,000
2022	550,000 – 650,000
2023	530,000 – 600,000
2024	30,000 – 60,000

Response:

The AMI preparatory work restarted with planning activities following the Commission decision on May 31 to certify the AMI and FAN deployments. While the specific details for AMI implementation are still in process, we expect the AMI implementation to begin in 2022, at the latest. This does change the AMI implementation schedule that was outlined in Gersack Direct Testimony provided in our November 2019 certification request as part of our 2019 Integrated Distribution Plan in Docket No. E002/M-19-666; we continue to expect the implementation will be complete in 2024. The project team continues to review the plan with a goal of accelerating meter deployment forward to the fourth quarter of 2021. The current draft plan is as follows and is subject to change:

Table 1: Current Minnesota AMI Implementation Plan

(Note: subject to change)

Quarter Block	Year	Quarter	Details	Branches	Meter Count adjusted for growth	5 Min Demand Meters
Block 1	2022	Q1	Mass Deploy	Edina (ED), Chestnut (CH) and Minnetonka (MI) - This includes all current TOU pilot meters	112,500	9,867
Block 2	2022	Q2	Mass Deploy	Edina (ED) and Chestnut (CH)	112,500	9,758
Block 3	2022	Q3	Mass Deploy	Chestnut (CH)	112,500	11,582
Block 4	2022	Q4	Mass Deploy	Minnetonka (MI) and remainder of Edina (ED), Chestnut (CH)	112,500	12,655
Block 5	2023	Q1	Mass Deploy	Newport (NP) and remainder of Minnetonka (MI)	147,500	13,928
Block 6	2023	Q2	Mass Deploy	Rice Street (RS) and remainder of Newport (NP)	147,500	11,711
Block 7	2023	Q3	Mass Deploy	White Bear Lake (WB) and remainder of Rice Street (RS)	147,500	15,103
Block 8	2023	Q4	Mass Deploy	Winona (WN), Red Wing (RW), Faribault (FR), Jordan (JR), Mankato (MO) and remainder of White Bear Lake (WB)	147,500	17,704
Block 9	2024	Q1	Mass Deploy	Bird Island (BI), Maple Grove (MA), Morgan (MG), Montevideo (MV), Wood Lake (WL) and remainder of Faribault (FR) and Mankato (MO)	90,000	12,063
Block 10	2024	Q2	Mass Deploy	Maple Grove (MA)	90,000	6,328
Block 11	2024	Q3	Mass Deploy	Howard Lake (HL), St Cloud (SC), Monticello (MT) and remainder of Maple Grove (MA)	90,000	10,247
Block 12	2024	Q4	Mass Deploy	Albany (AL), Glenwood (GW), Fargo (FA), Grand Forks (GF), Sioux Falls (SF) and remainder of St Cloud (SC) and Paynesville (PA)	90,000	10,469
TOTAL					1,400,000	141,415

*FA, GF and SF meters are physically located in Minnesota but report to respective ND/SD service centers

Preparer: Timothy Brossart / William Paul Davis
 Title: AVP, ETO / Director
 Department: Strategy and Planning / Meter Reading
 Telephone: 303-294-2143 / 715-456-1060
 Date: August 31, 2020

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Xcel Energy Information Request No. 3
Docket No.: E002/M-20-592
Response To: Department of Commerce
Requestor: Angela Byrne / Tricia DeBleeckere
Date Received: August 21, 2020

Question:

Topic: Customer Education Plan

Reference(s): Petition, page 8

Please discuss whether Xcel plans to file the AMI customer education and implementation plan with the Commission for Commission and/or stakeholder input.

Response:

We submitted our Advanced Grid Customer Education & Communications Plan with our Integrated Distribution Plan in Docket No. E002/M-19-666 as Attachment M1, Schedule 8 and received no discovery or comments on it. With the Commission's certification of our Advanced Metering Infrastructure (AMI) and Field Area Network (FAN) investments, our next step is to seek cost recovery for those investments. As customer communications will be part of the costs we seek to recover in that proceeding, we intend to outline our customer communication and other implementation plans as part of that filing. As an outcome of the Commission's AMI and FAN certification decision, we note that we are also required to submit a filing outlining preferred procedural paths forward 60 days in advance of a petition seeking rider recovery for these investments. We expect one of these paths to include technical conferences or workshops where we would engage with stakeholders on key aspects of our AMI and FAN implementation, including how we expect to engage with our customers.

Preparer: Karin Haas
Title: Consultant, Communications
Department: Strategic Communications North
Telephone: 612-321-3116
Date: August 31, 2020

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Xcel Energy	Information Request No.	4
Docket No.:	E002/M-20-592	
Response To:	Department of Commerce	
Requestor:	Angela Byrne / Tricia DeBleeckere	
Date Received:	August 21, 2020	

Question:

Topic: Customer Communication

Reference(s): Petition, page 8

In its Petition, Xcel stated, “Customers will also receive information about where to access even greater information about their usage through the customer energy portal we have planned – and that will be available for customers upon receiving an AMI meter.”

Please explain what will be available to customers upon receiving an AMI meter: 1) access to greater information about a customer’s usage through the energy portal, or 2) the plans for access to greater information about a customer’s energy usage.

Please provide a sample of the energy usage portal information that will be available upon AMI installation.

Response:

Today, most customers in Minnesota have access to daily energy usage information in our current customer portal – My Account. Upon receipt of an AMI meter, customers will be able to see their energy consumption data in increments as granular as 15 minutes, updated at least daily, via the customer portal. We include below examples of the various views of customer energy usage information that we have developed for the time-of-use (TOU) rate pilot. We clarify that TOU periods (in this case, on-peak, mid-peak, off-peak) would only be presented to the extent the customer is on a TOU rate.

Figure 1: TOU Customer – Daily View

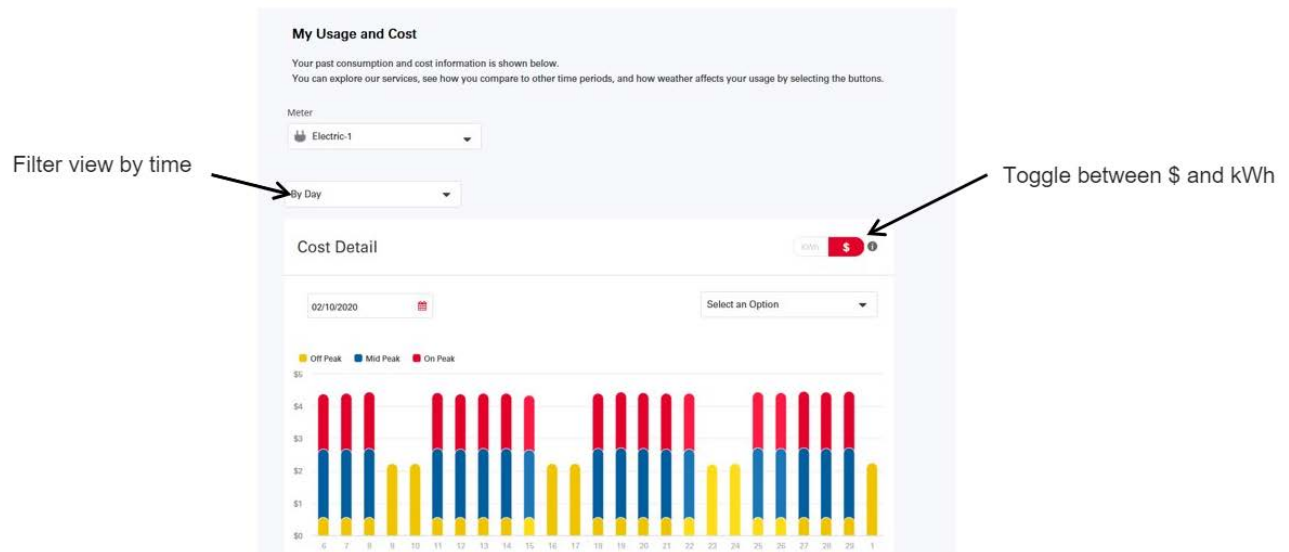


Figure 2: Usage – TOU Customer Hourly View

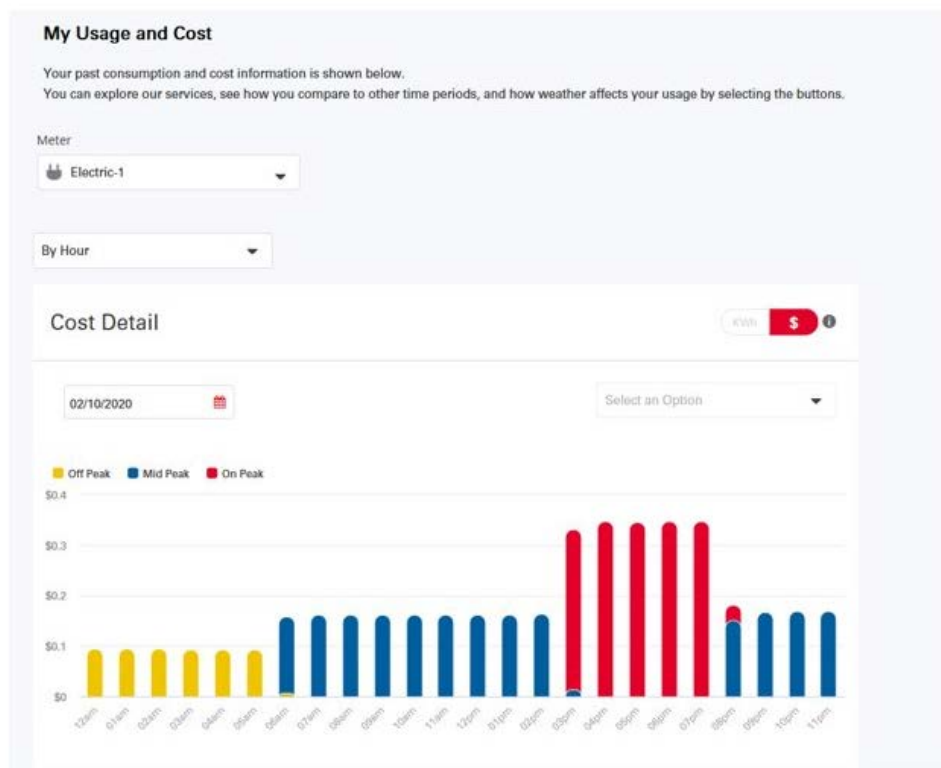
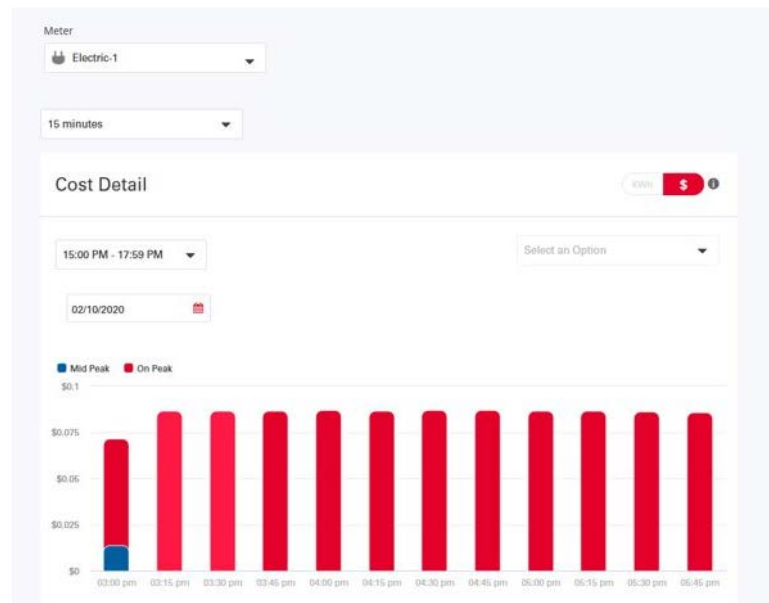


Figure 3: TOU Customer 15-Minute View



In addition, the Company plans to provide customers with the ability to access near real-time energy usage information via smart devices within the customer home via a Home Area Network solution.

Preparer: Drew Quirk
Title: Manager, Advanced Grid Customer Solutions
Department: Customer Solutions and Innovation
Telephone: 612-770-4984
Date: August 31, 2020

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Xcel Energy Information Request No. 6
Docket No.: E002/M-20-592
Response To: Department of Commerce
Requestor: Angela Byrne / Tricia DeBleeckere
Date Received: August 21, 2020

Question:

Topic: Manual-Read Meters

Reference(s): Petition, page 13

Request:

1. Please provide a timeline for Xcel's decision on which manual-read meter will be used. Will Xcel provide information on the proposed manual-read meter brand, model, and other specifications, at the time of its compliance filing updating the Commission on the manual meter read cost?
2. Please explain why purchase of non-standard AMI meters is necessary at this time and why Xcel cannot use its 500,000 spare meters to maintain non-AMI meters until AMI is fully implemented.

Response:

1. We are currently engaged in evaluating responses to the RFP we issued for the non-standard meters to be used for opt-out customers. The responses include meter samples, which our meter engineering personnel are also evaluating. We expect to make our decisions on the meter brand and model by the end of September 2020. We would be able to provide the specifications of the selected meters as part of a future cost recovery request or in the compliance filing we have proposed in this docket that would update the Commission on actual manual meter reading costs associated with customer AMI opt-out.
2. As we explained in our 2019 Integrated Distribution Plan, the meters that we currently employ are being phased out by our service provider. Further, few of our existing meters are equipped with the capability to record customer usage in 15-minute intervals, nor are they equipped with an optical port that would allow the Company to gather interval usage information for opt-out customers

to access on a monthly basis through the customer portal. Finally, customers opting for a non-AMI meter will also benefit from the Company performing the installation as part of the broad AMI implementation, in that the Company is able to avoid a special trip and thus can waive the installation charge.

Preparer: William Paul Davis
Title: Director
Department: Meter Reading
Telephone: 715-456-1060
Date: August 31, 2020

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Xcel Energy

Information Request No. 7

Docket No.: E002/M-20-592

Response To: Department of Commerce

Requestor: Angela Byrne / Tricia DeBleeckere

Date Received: August 21, 2020

Question:

Topic: Non-Standard Meter Installation and Removal Charges

Reference(s): Petition, page 14

Please discuss the following questions:

1. What were the considerations given to including a split charge for installation and removal of the MMR meter, versus a combined charge at the time of AMI removal?
2. What are the benefits or costs to imposing a full up-front fee of \$80?
3. What is the expected number of customers that will opt-out? A range estimate is sufficient.
4. Does Xcel anticipate increased costs associated with potential bill collection costs to obtain manual read meter removal charges from persons who have vacated premises?
5. What amount of revenue does Xcel estimate it will collect from opt-out fees?

Response:

1. The customer charge structure we propose is intended to align customer costs with the time in which those costs are incurred.
2. As noted in part 1 above, we structured the installation and removal charges consistent with a cost-causation approach – to align with the points in time when the costs are incurred.
3. The Company estimates an opt-out rate of 0.5 percent. See our response to DOC IR No. 9 regarding how we derived this estimate.

4. When an opt-out customer vacates a premise, we will apply the meter removal charge to the final bill. We do not anticipate additional costs to collect on customer final bills.
5. If 0.5 percent of our 1.26 million residential and small commercial (non-demand billed) customers opt-out of an AMI meter, that would result in 6,300 customers opting for the Manual Meter Reading Service tariff. Over a 12 month period, this would result in approx. \$1.1 million of Fixed Charge revenue to offset our costs of manually reading those meters. The one-time Non-Standard Meter Installation revenue associated the estimated 6,300 customers would be approximately \$250,000. Similarly, if any customers choose to return to AMI service or otherwise terminate their participation in the optional Manual Metering Reading Service, the associated revenue would be the number of customers leaving the service times the Non-Standard Meter Removal Charge of \$40.00.

Preparer: William Paul Davis / Nick Paluck
Title: Director / Rate Consultant
Department: Meter Reading / NSPM Regulatory
Phone: 715-456-1060 / 612-330-2905
Date: August 31, 2020

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Xcel Energy

Information Request No. 9

Docket No.: E002/M-20-592

Response To: Department of Commerce

Requestor: Angela Byrne / Tricia DeBleeckere

Date Received: August 21, 2020

Question:

Topic: Take Rate of Manual Meter Reads

Reference(s): Petition, page 13

Xcel stated, “At that time, we will be able to ascertain whether the manual meter reading rate aligns with our 0.5 percent take-rate expectations and thus whether the charges are appropriately representative of the incremental costs associated with this optional service.”

Please explain how the ‘0.5 percent take-rate expectations’ were calculated and how the ultimate real value would determine or factor into an analysis on whether the opt-out charges are appropriately representative of the incremental costs associated with the optional service. The response should include, but not necessarily be limited to, discussion regarding the following questions:

1. What is the methodology to get from the take rate to the assessed charges?
2. What are the factors that could change?
3. What are the factors that would change the value up or down the most?

Response:

1. We established the estimated 0.5 percent opt-out rate through discussions with other utilities. We learned through these informal discussions that they experienced opt-out rates between 0.2 percent and 1 percent of customers. To estimate the cost of the associated manual meter reads, we leveraged our current experience with manual meter reading. We took our annual labor and non-labor costs and divided by the number of manual meter reads we performed. To add an element of conservatism, we rounded down our calculation of \$17.81 per read using this methodology, to \$15.00. We believe our current experience and associated manual meter reading cost is a good proxy for our expectations in this case because we currently manually read nearly 0.5 percent of our customers.

2. The primary factors are the opt-out rate, the labor rate and fuel costs.
 3. We expect that the biggest impact to the Fixed Charge would be an increase in the customer opt-out rate. An increase in the opt-out rate would reduce the cost per manual meter reading; similarly, a lower opt-out rate would result in a higher cost per customer. An increase in the opt-out rate would theoretically decrease the amount of drive time between manual meter reads, which would make the process slightly more efficient and therefore decrease the amount of cost on a per read basis.
-

Preparer: William Paul Davis / Nick Paluck
Title: Director / Rate Consultant
Department: Meter Reading / NSPM Regulatory
Telephone: 715-456-1060 / 612-330-2905
Date: August 31, 2020

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Xcel Energy Information Request No. 10
Docket No.: E002/M-20-592
Response To: Department of Commerce
Requestor: Angela Byrne / Tricia DeBleeckere
Date Received: August 21, 2020

Question:

Topic: Savings of Meter Reading Costs in Base Rates

Reference(s): Petition, page 13

1. Please explain whether Xcel is tracking or will track AMI-related cost savings upon AMI installation, in light of existing meter-related capital costs and operation and maintenance expenses already included in base rates. If yes, please discuss whether the Company plans to propose offsetting those savings against future requested AMI rate recovery.
2. Please explain whether Xcel will track any increase of revenues upon AMI installation. If yes, please discuss whether the Company plans to propose offsetting those revenues against future requested AMI rate recovery.

Response:

As we do with all of our costs, yes, we intend to continue to track our metering and meter reading costs as we transition to AMI. For purposes of our opt-out proposal, our Petition explained that we will track the costs we incur in relation to the revenue we collect from AMI opt-out customers, and we will submit a compliance filing to the Commission. To the extent costs and revenues from our opt-out service require adjustment, we will propose a change to the AMI Opt-Out Tariff as part of that compliance filing. We expect the subject of overall AMI costs and savings will be addressed as part of the Company's AMI and FAN investment cost recovery proposal.

Preparer: Bria Shea
Title: Director
Department: Regulatory Strategy and Analysis
Telephone: 612-330-6064
Date: August 31, 2020

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Xcel Energy Information Request No. 11
Docket No.: E002/M-20-592
Response To: Department of Commerce
Requestor: Angela Byrne / Tricia DeBleeckere
Date Received: August 21, 2020

Question:

Topic: Opt-Out Costs

Reference(s): Petition, page 16

In its Petition, Xcel stated, “We reviewed opt-out costs across the country and determined that manual meter reading costs average \$30.61 per month per premise, and meter exchange (installation/removal) costs average \$131.00 per customer.”

1. Please provide the following information regarding Xcel’s calculation of average meter reading costs reference above:
 - a. sample size;
 - b. which utilities or states were evaluated; and
 - c. which year was used to evaluate the costs.
2. Is there any additional context that could be useful in understanding the estimates?
3. Are the estimates reflective of costs to customer or costs to utilities?
4. Do these averages include utilities that are subject to Commission or legislative required cost caps or set rates for one-time installation, removal, or monthly charges?

Response:

We requested information from utilities of various sizes, types, and locations across the United States. See Table 1 below for the results of our survey. We note that as we were preparing our response to this Information Request, we discovered that we had calculated the average amounts presented in our Petition incorrectly. As shown below, the average Meter Install/Removal Charge should have been \$124.00 and the average Monthly Manual Read Charge should have been \$25.00. We will make note of this error in our Reply Comments.

Table 1: Xcel Energy AMI Opt-Out Utility Survey Results (2019)

	Meter Install/ Removal	Monthly Manual Read
Texas	\$201.58*	\$23.95
Texas	\$105.00	\$36.00
Chicago	\$77.47	\$21.53
Kansas/Missouri	\$150.00	\$40.00
Florida	\$89.00	\$13.00
North Carolina	\$150.00	\$11.75
Maryland	\$80.00	\$20.00
Missouri	\$150.00	\$45.00
Oklahoma	\$115.00	\$15.66
Average	\$124.23	\$25.21

** Note: this result averages three different Meter Install/ Removal rates from a single utility with different charges based on meter type.*

Our survey asked the utilities to respond with their customer charges for their AMI opt-out service; we did not request the utilities to explain the basis of their charges.

Preparer: William Paul Davis
Title: Director
Department: Meter Reading
Telephone: 715-737-5603
Date: September 2, 2020

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Xcel Energy Information Request No. 12
Docket No.: E002/M-20-592
Response To: Minnesota Department of Commerce
Requestor: Angela Byrne/ Tricia DeBleeckere
Date Received: August 25, 2020

Question:

Topic: Itron Meter Functionalities
Reference(s): Petition, generally

Please explain any alternative opt-out options considered for use of the Itron Riva Generation 4.2 AMI meters. Will customers have alternative options for AMI participation, beyond opt-in or opt-out of the meters? If so, what is participation levels and functionality levels are contemplated?

Where and when would those options be proposed or presented to the Commission? Where and when would those participation options be proposed or presented the customer?

Specifically, if a customer elects to have an AMI meter installed, will there be options proposed to opt out of:

1. Data collection on their home-load?
2. Home-load disaggregation data?
3. Home-load disaggregation data analytics?
4. HAN compatible Network Interface Card usage?
5. data collection over and above standard load and load profiles gained by real-time or interval based readings?
6. Data analytics over and above standard load and load profiles gained by real-time or interval based readings?
7. Any other functionalities not listed above?

Is there a method by which the meters could remotely ‘turn-off’ any functionality beyond interval usage reading? What functionalities could be turned off remotely? Is there a method by which the meters could manually ‘turnoff’ any functionality beyond interval usage reading? What functionalities could be turned off manually?

Response:

The only opt-out option we currently intend to offer in conjunction with our AMI implementation is the Manual Meter Reading Service we have proposed in this docket. The collection of load profile data from our standard AMI and non-standard, in the case of customers opting for the Manual Meter Read Service, meters will be used for billing and operational needs and will not have an opt-out provision for customers. Beyond the load profile data to support customer billing, we expect to configure the meters to send operational alerts if certain grid conditions are met. Examples of these include:

- Voltage out of range,
- High current (current above designed service limit),
- Power outage and restoration,
- Theft or tampering detected.

On a case-by-case basis, we may also perform on-demand power quality readings to assess service quality and for troubleshooting purposes. We do not plan to offer an opt-out of the data collection associated with these billing and operational-related functionalities.

Beyond these core service functionalities, we are continuing to evaluate and develop potential customer programs and services consistent with the Customer Strategy we provided in conjunction with our 2019 Integrated Distribution Plan in Docket No. E002/M-19-666. To the extent a customer program or service requires Commission approval, we will submit a proposal in the form of a miscellaneous filing. Finally, we note that from a technical perspective, “turning off” individual functions in the meter would require the creation of custom meter programs and configurations, which we do not contemplate doing at this time.

Preparer: William Paul Davis
Title: Director
Department: Meter Reading
Telephone: 715-737-5603
Date: September 4, 2020

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Xcel Energy

Information Request No. 13

Docket No.: E002/M-20-592

Response To: Minnesota Department of Commerce

Requestor: Angela Byrne/ Tricia DeBleeckere

Date Received: August 25, 2020

Question:

Topic: Monthly and One-Time Fees

Reference(s): Petition, Attachment C and D

Meter reading costs of \$1.00 included in base rates. How was this calculated and what does this include? Does this include operational costs?

How would the charges or methodology listed in Attachments C and D be affected by different percentages of AMI take rates? What costs would be affected by different AMI take rates? What benefits would be affected by different AMI take rates? How would those costs or benefit changes affect the costs listed by line item in the Attachment C and D to the Petition?

Response:

Please see Attachment A to this response for the calculation of the meter reading costs of \$1.00 per customer per month. At a high level, the analysis takes the FERC Account 902 costs that we allocated to non-demand billed customers as reflected in our most recent rate case Class Cost of Service Study (Docket No. E002/GR-15-826 (2016 TY)) and divides them by the total number of non-demand billed customer bills. Please note that current meter reading costs in FERC Account 902 include the cost of reading our current meters remotely. As the Company transitions to AMI, these costs will decrease and ultimately cease once AMI is fully deployed.

Labor and transportation costs would be impacted by higher or lower opt-out rates. While higher opt-out rates would result in higher labor and transportation costs overall, we theoretically believe the higher opt-out rates would drive efficiency in the manual meter reading process, since we believe there would be less drive time between meter reads. Therefore, we expect higher opt-out rates to drive down the cost-per-meter read.

Preparer: William Paul Davis / Nick Paluck
Title: Director / Rate Consultant
Department: Meter Reading / NSPM Regulatory
Telephone: 715-737-5603 / 612-330-2905
Date: September 4, 2020

Meter Reading Costs per Bill*Dollars, No. of customers and No. of bills are shown in thousands unless noted otherwise*

			Total	Residential	Small C&I <i>Non-demand</i>	Large C&I <i>Demand</i>	Street lighting
Meter Reading Costs ¹	FERC 902	(A)	\$15,914	\$13,173	\$1,517	\$1,173	\$51
Mo Cus Wtd By Cus Acct <i>Class Allocation</i> ¹	C11WA	(B)	1,367	1,131 <i>82.8%</i>	130 <i>9.5%</i>	101 <i>7.4%</i>	4 <i>0.3%</i>
Meter Reading Costs for Non-Demand billed customers		(C)	\$14,690	\$13,173	\$1,517		
Non-Demand billed customers		(D)	1,218	1,131	87		
Bills per year per customer		(E)	12				
Non-Demand billed customer bills per year		(F) = (D) x (E)	14,618				
Meter Reading cost per month per bill		(G) = (C) / (F)	\$1.00				

¹ Based 2017TY ordered CCOSS in 15-826

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

Xcel Energy Information Request No. 14

Docket No.: E002/M-20-592

Response To: Minnesota Department of Commerce

Requestor: Angela Byrne/ Tricia DeBleeckere

Date Received: August 25, 2020

Question:

Topic: Monthly and One-Time Fees

Reference(s): Petition, Attachment C and D

For each of the following FERC Accounts, please describe the nature of the account and please list the dollar amount approved for recovery in Xcel's last rate case: FERC Accounts 370, 586, 597, 901, 902, 903, and 926.

Response:

The following table contains descriptions of the requested FERC accounts from the Electric Code of Federal Regulations, Part 101. Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act. Also included are the expense levels approved for recovery in the Company's last electric rate case (Docket No. E002/GR-15-826), specifically the final year (2019) of the MYRP filing.

FERC Account	Description	Amount approved in Docket 15-826 (Final year of MYRP)
370 – Meters Income Statement – Book Depreciation	This account shall include the cost installed of meters or devices for use in measuring the electricity delivered to its users, whether actually in-service or held in reserve. When a meter is permanently retired from service, the installed cost included herein shall be credited to this account. The records covering meters shall be so kept that the utility can furnish information as to the number of meters of various capacities in service and in reserve as well as the location of each meter owned.	\$4,301,227

FERC Account	Description	Amount approved in Docket 15-826 (Final year of MYRP)
586 – Meter Expense Income Statement	This account shall include the cost of labor, materials used and expenses incurred in the operation of customer meters and associated equipment. The cost of the first setting and testing of a meter is chargeable to utility plant account 370 - Meters.	\$3,268,171
597 – Maintenance of Meters Income Statement	This account shall include the cost of labor, materials used and expenses incurred in the maintenance of meters and meter testing equipment, the book cost of which is includible in account 370 - Meters, and account 395 - Laboratory Equipment, respectively.	\$133,408
901 – Supervision Income Statement	This account shall include the cost of labor and expenses incurred in the general direction and supervision of customer accounting and collecting activities. Direct supervision of a specific activity shall be charged to account 902 - Meter Reading Expenses, or account 903 - Customer Records and Collection Expenses, as appropriate.	(\$114,238)
902 – Meter Reading Expenses Income Statement	This account shall include the cost of labor, materials used and expenses incurred in reading customer meters, and determining consumption when performed by employees engaged in reading meters.	\$16,461,279
903 – Customer Records and Collection Expense Income Statement	This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.	\$23,229,563
926 – Employee Pension and Benefits Income Statement	<p>This account shall include pensions paid to or on behalf of retired employees, or accruals to provide for pensions, or payments for the purchase of annuities for this purpose, when the utility has definitely, by contract, committed itself to a pension plan under which the pension funds are irrevocably devoted to pension purposes, and payments for employee accident, sickness, hospital, and death benefits, or insurance therefor. Include, also, expenses incurred in medical, educational or recreational activities for the benefit of employees, and administrative expenses in connection with employee pensions and benefits.</p> <p>The utility shall maintain a complete record of accruals or payments for pensions and be prepared to furnish full information to the Commission of the plan under which it</p>	\$78,384,013

FERC Account	Description	Amount approved in Docket 15-826 (Final year of MYRP)
	<p>has created or proposes to create a pension fund and a copy of the declaration of trust or resolution under which the pension plan is established.</p> <p>There shall be credited to this account the portion of pensions and benefits expenses which is applicable to nonutility operations or which is charged to construction unless such amounts are distributed directly to the accounts involved and are not included herein in the first instance.</p> <p>For Major utilities, records in support of this account shall be so kept that the total pensions expense, the total benefits expense, the administrative expenses included herein, and the amounts of pensions and benefits expenses transferred to construction or other accounts will be readily available.</p>	

The expense amounts provided reflect the initial 2019 forecast from the Company's last approved electric rate case, and do not reflect any generalized adjustments necessary to reach a settlement in that case.

Preparer: Mary Pope
 Title: Senior Rate Analyst
 Department: Revenue Requirements North
 Telephone: 612-330-6574
 Date: September 4, 2020



414 Nicollet Mall
Minneapolis, MN 55401

March 18, 2020

—Via Electronic Filing—

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

RE: LETTER – PILOT POSTPONEMENT
RESIDENTIAL TIME OF USE RATE DESIGN PILOT
DOCKET NO. E002/M-17-775

Dear Mr. Seuffert:

Northern States Power Company, doing business as Xcel Energy, submits this Letter to the Minnesota Public Utilities Commission regarding the Company's Residential Time of Use Rate Design Pilot (the Pilot). The Company has been preparing to launch the Pilot, referred to as Flex Pricing, on April 1, 2020. Due to the current COVID-19 Pandemic and its impact on residential electric use in the pilot areas, the Company is postponing the start date of the Pilot.

We continue to observe the situation and will provide an update as a new launch date is determined. The Company is communicating with pilot customers about this change through bill message, email, and direct mail, as well as through our community relations representatives.

Pursuant to Minn. Stat. § 216.17, subd. 3, we have electronically filed this document, and served copies on all parties on the attached service list. If you have any questions about this filing, please contact Amber Hedlund at (612) 337-2268 or amber.r.hedlund@xcelenergy.com or me at holly.r.hinman@xcelenergy.com. or (612) 330-5941.

Sincerely,

/s/

HOLLY HINMAN
REGULATORY MANAGER

c: Service List

CERTIFICATE OF SERVICE

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

Minnesota Department of Commerce
Comments

Docket No. E002/M-20-592

Dated this 9th day of **September 2020**

/s/Sharon Ferguson

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Curt	Dieren	curt.dieren@dgr.com	L&O Power Cooperative	1302 S Union St Rock Rapids, IA 51246	Electronic Service	No	OFF_SL_20-592_M-20-592
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_20-592_M-20-592
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