414 Nicollet Mall
Minneapolis, MN 55401

November 17, 2017

—Via Electronic Filing—

Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

RE: PETITION FOR APPROVAL OF A RESIDENTIAL EV SERVICE PILOT PROGRAM
DOCKET NO. E002/M-17-____

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits the attached Petition for approval of a residential EV Service Pilot Program.

Pursuant to Minn. Stat. § 216.17, Subd. 3, we have electronically filed this document with the Minnesota Public Utilities Commission, and a copy of the Summary of Filing has been served on the parties on the attached service lists. Please contact Cyndee Harrington at cynthia.d.harrington@xcelenergy.com or (612) 330-5953 if you have any questions regarding this filing.

Sincerely,

/s/

AMY A. LIBERKOWSKI
DIRECTOR, REGULATORY PRICING & ANALYSIS

Enclosure
cc: Service Lists

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Nancy Lange	Chair
Dan Lipschultz	Commissioner
Matthew Schuerger	Commissioner
Katie J. Sieben	Commissioner
John Tuma	Commissioner

IN THE MATTER OF THE PETITION OF NORTHERN STATES POWER COMPANY FOR APPROVAL OF A RESIDENTIAL EV SERVICE PILOT PROGRAM

DOCKET NO. E002/M-17-____

PETITION

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission this Petition for approval of a Residential Electric Vehicle (EV) Service Pilot project. Our proposal is consistent with the requirements of the EV Charging Tariff Statute, Minn. Stat. § 216B.1614, as well as the administrative rules governing this request, Minn. R. 7829.3200 and 7829.1300.

As described in this Petition, the Company currently serves some customers with EV charging needs through whole-house Time of Use (TOU) rates, which enable savings by all energy sales during off-peak periods at night, as well as the Residential EV Service tariff, which provides favorable rates for off-peak energy use by EV chargers by segregating EV energy use separately from the rest of the home.

The Company's existing EV Service rate was driven in part by a Legislative mandate and the Commission found that the Company's proposal satisfied the statute and approved the tariff. Today's proposal arises differently – in this case from the Company's desire to refine our suite of customer choices and to increase customer satisfaction through a tailored service option. To that end, the Company wishes to pilot a refined EV charging service with customers on a limited basis in order to test key questions that have surfaced in connection with the Company's current offers. The pilot—which is informed by substantial engagement between the Company and our stakeholders over the past year—is designed to test the potential for cost savings and customer experience improvements through a combination of new equipment deployment and off-peak rate design. The Company hopes to leverage these pilot

learnings going forward as it considers broader opportunities to serve our customers who drive EVs.

We respectfully request that the Commission:

- approve our proposal for implementing a Residential EV Service Pilot Program;
- approve our proposed Customer Agreement and Residential EV Service Pilot Tariff;
- approve our proposed accounting treatment; and
- approve our request for a rule variance.

The balance of this filing describes key pilot program features, including:

- *Pilot program description*— the Company will furnish control equipment commonly referred to as Electric Vehicle Supply Equipment (EVSE)[1] to meter EV charging separately from home usage.[2] Participants can charge off-peak at discounted rates;
- *Pilot program background & objectives* — the Company aims to seek and confirm cost savings compared to the existing EV Service option; improve customer service and experience; and maintain safety, reliability and billing accuracy;
- *Terms of participation* —customers will sign up for the EV Service pilot, choose their preferred equipment, and choose whether to pay upfront for the installed device or pay monthly for its use. The tariff and Agreement detail the terms of service; and
- *Cost recovery proposal* —qualifying pilot costs will be recorded under our existing Tracker account and installed devices will be recovered by participants through a surcharge.

The Company includes the following Attachments in support of its Petition:

Attachment A	EVSE Configuration and Power Flow
Attachment B	Sample Billing Statement
Attachment C	EV Service Pilot Customer Agreement
Attachment D	Residential EV Service Pilot Tariff
Attachment E	PV Rooftop Configuration

[1] EVSE is charging equipment that communicates with the vehicle in order to safely supply an appropriate amount of electricity.

[2] For more information on this technology see https://www.afdc.energy.gov/uploads/publication/pev_consumer_handbook.pdf .

I. SUMMARY OF FILING

A one-paragraph summary is attached pursuant to Minn. R. 7829.1300, subp. 1.

II. SERVICE ON OTHER PARTIES

Pursuant to Minn. R. 7829.1300, subp. 2 and Minn. Stat. § 216.17, subd. 3, Xcel Energy has electronically filed this document. A summary of the filing has been served on all parties on the enclosed service lists for Docket No. E002/M-15-111, and our Miscellaneous Electric Service list.

III. GENERAL FILING INFORMATION

Pursuant to Minn. R. 7829.1300, subp. 3, the Company provides the following information.

A. Name, Address, and Telephone Number of Utility

Northern States Power Company doing business as:
Xcel Energy
414 Nicollet Mall
Minneapolis, MN 55401
(612) 330-5500

B. Name, Address, and Telephone Number of Utility Attorney

Ryan Long
Principal Attorney
Xcel Energy
401 Nicollet Mall, 8th Floor
Minneapolis, MN 55401
(612) 215-4659

C. Date of Filing

The date of this filing is November 17, 2017.

D. Statute Controlling Schedule for Processing the Filing

Minn. Stat. § 216B.16 subd. 1 requires 60-days of notice to the Commission of a proposed tariff change. Under the Commission's rules, the proposed tariff change

discussed in this Petition falls within the definition of a miscellaneous tariff filing under Minn. R. 7829.0100, subp. 11, since no determination of Xcel Energy's general revenue requirement is necessary. Minn. R. 7829.1400, subps. 1 and 4 permit comments in response to a miscellaneous filing to be filed within 30 days and reply comments to be filed no later than 10 days thereafter.

E. Utility Employee Responsible for Filing

Amy Liberkowski
Director, Regulatory Pricing & Analysis
Xcel Energy
401 Nicollet Mall, 7th Floor
Minneapolis, MN 55401
(612) 330-6613

IV. MISCELLANEOUS INFORMATION

Pursuant to Minn. R. 7829.0700, the Company requests that the following persons be placed on the Commission's official service list for this proceeding:

Ryan Long
Principal Attorney
Xcel Energy
401 Nicollet Mall, 8th Floor
Minneapolis, MN 55401
ryan.j.long@xcelenergy.com

Carl Cronin
Records Analyst
Xcel Energy
401 Nicollet Mall, 7th Floor
Minneapolis, MN 55401
regulatory.records@xcelenergy.com

Any information requests in this proceeding should be submitted to Mr. Cronin at the Regulatory Records email address above.

V. EFFECT OF CHANGE UPON XCEL ENERGY REVENUE

No significant revenue effect net of incremental costs is expected. The proposed pilot energy charges are the same as the current Residential Electric Vehicle Service Tariff. The higher proposed customer charges for the pilot are designed to recover additional services provided through the pilot such as the provision of EVSE equipment and energy usage measurement expenses.

VI. DESCRIPTION AND PURPOSE OF FILING

In this Petition, we enhance our portfolio of customer choices for EV drivers with a new option: a pilot that pairs an off-peak charging incentive through TOU rates with a Company-offered Level 2 charging solution.[3] The pilot was developed in response to customer feedback about potential barriers to accessing benefits under the Company's existing options. The pilot will seek opportunities for cost savings compared to the Company's current customer offers and will also seek to improve the customer experience while maintaining safe and reliable electric service.

VII. BACKGROUND

In 2014, the Minnesota Legislature passed the Electric Vehicle Charging Tariff Statute, which directed each public utility to file a tariff with the Commission enabling customers to purchase electricity solely for the purpose of recharging an electric vehicle and incorporating either a time-of-day or off-peak rate.[4] In 2015, the Company petitioned the Commission for approval of its proposed Residential Electric Vehicle Service tariff, which provided for a Time of Use rate for metered EV usage.[5] The Commission approved the Company's proposed tariff on June 22, 2015. The Residential Electric Vehicle Service tariff joined the Company's "whole-house" Time of Use rate to provide an additional customer option for off-peak charging.

In Docket No. E002/M-15-111, the Company introduced a plan to file an EV Service pilot to explore and evaluate EV charging technology options for our customers who wished to take advantage of a dedicated EV rate option but perceived the upfront cost of this option to be a barrier. We committed to work with stakeholders to explore solutions that would support the success of the EV Service tariff and determine the feasibility of providing reliable and secure billing quality data using EV charging technologies.

A. Stakeholder Engagement

To that end, we facilitated three initial stakeholder meetings in October 2016, February 2017, and September 2017. The purpose of these stakeholder meetings was

[3] AC Level 2 EVSE is based on SAE J1772 which allows charging at 208/240 V AC up to 80 A. A typical Level 2 EVSE recharges a vehicle at 3.3 kW to 6.6 kW. EVs take between 1.3 to 2.7 hours to recharge with a Level 2 after the average daily driving distance of 29 miles.

[4] Minn. Stat. § 216B.1614, Subd. 2.

[5] *In the Matter of the Petition of Northern States Power Company for approval of a Residential Electric Vehicle Charging Tariff*, MPUC Docket No. E002/M-15-111 (Jan. 1, 2015).

to provide a forum for pilot plan communication, feedback exchange, and to encourage stakeholder participation in the development of the Company's pilot plan.

B. Request for Information / Request for Proposal

The Company issued a Request for Information (RFI) to EV charging and/or metering equipment vendors on October 31, 2016 to gain a greater understanding of the market and available technologies. We received responses from seven providers that included detailed information on two technology types: EVSEs with embedded load-monitoring and load-monitoring solutions external to EVSEs.[6]

We analyzed the responses and again convened stakeholders prior to issuing a Request for Proposals (RFP) in March 2017. The Company's RFP set forth detailed technical requirements and sought bids from eligible respondents. In response to the RFP, we received a total of seven bids representing the two technology types.

The Company reviewed the RFP results, and invited five of the seven vendors to participate in on-site product testing at a Company facility between May and July 2017.[7] As a result of the testing, two of the five vendors—including those with load-monitoring solutions—were eliminated from consideration because they failed to meet the requirements established in the RFP. The remaining three vendors were invited to continue participating in the Company's pilot development, and the Company is currently in the process of negotiating terms, conditions, and pricing for these vendors' participation in the pilot.

The Company understands that some customers would prefer to see the inclusion of non-EVSE technologies and/or the use of customers' existing charging equipment within the scope of the pilot.[8] While we had hoped to include other technology solutions in this pilot, the technology procurement process did not yield any solutions currently capable of fulfilling the Company's metering accuracy, billing, and data requirements. Rather than delay our pilot proposal, we decided to move forward with a single technology format but to include multiple EVSE vendors. We believe this

[6] For this petition, we have defined these technologies as: an **EVSE with embedded load monitoring** is an EV charger that is able to accurately capture electric load data and securely upload that data to a head end. A **load-monitoring solution external to EVSEs** is equipment that operates downstream of the utility meter, and can enhance an existing EVSE by accurately capturing electric load for charging an EV and securely uploading that data to a head end.
[7] Two of the vendors were eliminated from consideration as a result of not meeting the RFP's threshold criteria.
[8] We likewise understand that some of our customers who own electric vehicles live in apartments or condominiums and would like to see a similar rate offering for multi-family residents. However, the complexities associated with multi-family billing and parking (for example, ensuring that we can identify who is using the EVSE to charge their vehicle) present an entirely different set of issues that we believe would have significantly delayed our proposal. Thus, while we will certainly continue to explore offering such a rate in the future, we are not able to do so as part of this pilot.

approach is reasonable given the size of the pilot, and has the benefits of preserving some amount of customer choice while also fulfilling stakeholder interest in bringing the pilot forward as efficiently as possible. That said, we will continue exploring new EV-related technology solutions during the term of the pilot. And to the extent we find new and workable solutions, we do not intend to wait for the conclusion of the pilot before pursuing those opportunities and potentially offering them to our customers in connection with future rate offerings.

VIII. Pilot Program Description

A. Overview & Objectives

Residential Service customers who own or lease an EV will be invited to enroll in the Company's pilot. Customers will choose their preferred EVSE from participating vendors whose equipment meet Company requirements. The Company will purchase the EVSE unit and have it installed at the customer's home by a qualified contractor. While on site, the contractor will also provide an estimate for informational purposes of the cost to install a second metered service at the customer's premise according to the current EV tariff, which will be used to evaluate cost savings associated with the pilot compared to the existing EV Service rate option. A customer may choose to pay the installed EVSE unit cost through its inclusion in the monthly customer charge for Bundled Service, or upfront prior to beginning service with the Pre-Pay Option that has a correspondingly lower monthly customer charge. The pilot includes TOU energy rates that provide participants an incentive for scheduling their EV charging needs during the off-peak rate period. The Company will pilot this offer to up to 100 customers for two-year terms over a 30-month period.

1. Seek and confirm cost savings compared to the existing EV Service option

Through this pilot, the Company hopes to learn more about bringing cost-effective options to our customers. Currently, enrollment in our existing EV Service tariff requires customers to fund the installation of a second meter in addition to the costs of charging equipment. Some customers have indicated that this requirement has been a barrier to taking service under the Company's dedicated EV Service rate. Meanwhile, among customers likely to purchase or lease an EV, our surveys show that 60 percent would be interested in TOU rates for EV charging if upfront costs for enrollment are reduced.[9] EVSEs that embed load monitoring technology with billing-

[9] The Company conducted an online customer survey about EV charging and EV rates, with 89 respondents. Additionally, the Company reviewed market research conducted in other states on EV drivers, including: California Center for Sustainable Energy. "California Plug-in Electric Vehicle Driver Survey Results." May, 2013.

quality accuracy, in lieu of a second meter, could reduce participation costs for customers.

Through the pilot we expect to also confirm that customers on the EV Service rate will experience bill savings with a nighttime off-peak charging option compared to costs under our traditional residential tariff. Surveys suggest that customers are highly interested in charging during off-peak times and the most important motivator for enrolling in an EV charging rate is bill savings.[10]

2. *Improve customer service and experience*

A key objective of the EV Service Pilot is to improve customers' experiences with EV charging. Today, customers taking service under the existing EV Service tariff only see their on-peak and off-peak energy usage on their bill at the end of the month. In the proposed pilot, customers will have access to significantly more information and use the EVSE web portals to access their usage data on a more granular basis, which will provide an important channel for learning and engagement. Additionally, selecting chargers and installing them is not an easy process for customers, and market research consistently cites the "hassle factor" as a major barrier to adoption for electric vehicles.

Our goal is to increase awareness and interest in the EV charging TOU rate, and to make the decision-making process simpler for customers by:

- Helping customers gain reliable information on EV rates and EVSE equipment, providing customers relevant content via the web and e-mail, and sharing the information when it is most timely and pertinent. Customers looking for charger and EV rate information rely heavily on online searches and the Company's website, according to our customer research;[11]
- Offering customer choices for EVSEs while maintaining a reasonable level of simplicity, based on a pre-approved list of EVSE vendors that met the Company's performance requirements;
- Providing options for customers to choose between paying upfront for the EVSE equipment and installation or through a bundled monthly charge, as customers, in surveys, have been split on which option they prefer;[12]
- Enabling an easier installation process, working with a qualified contractor who is well-equipped to help customers install EVSEs safely and obtain permits while facilitating enrollment and online connection for the EV rate; and

[10] Ibid., see footnote 9.
[11] Ibid., see footnote 9.
[12] Ibid., see footnote 9.

- Leveraging support from the broader electric vehicle community and providing opportunities to capture value by offering incentives for referrals in order to encourage auto dealers to promote the pilot.

The pilot will provide key learnings that will not only benefit participants but also the Company's other customers by helping inform future products that enhance the customer experience. As electric vehicle adoption continues to grow, we are evaluating additional strategies and programs that could unlock additional value for our customers.

3. Maintain safety, reliability, and billing accuracy

In developing this pilot, the Company performed an assessment of market-available EV charging products that meet minimum functional requirements. Some of those requirements include the following:

- Metering and billing accuracy of plus or minus 2 percent;
- Ability to retrieve 15-minute interval energy usage data;
- Secure data transfer between the customer and the Company;
- Secure onboard data storage for 15 minute interval data for minimum of 90 days;
- 10 watt standby power consumption maximum;
- Charging device must be UL Listed;
- Compatible metering data format (XML, MV90, OCPP and CNMP);
- Certain administrative privileges that enable the Company to access charging data and to receive information from the EVSE; and
- Editing controls that prevent data tampering.

These requirements were vetted throughout the Company's vendor selection process, including the RFP response assessment and the on-site product demonstrations. Because learnings from this pilot are important to inform future customer offers, the Company intends to review and report on the performance of the technology with respect to these important standards.

B. Technology Procurement

Through the process described above, the Company has identified potential vendors for our proposed residential EV Service Pilot that meet the Company's requirements. Vendors selected to participate will form contracts with the Company to supply EVSE units for the pilot. The Company will purchase the devices from the vendors

and offer customers the option to pay for the installed unit cost upfront or through a monthly charge. The Company will own all units during the term of the pilot[13] and the vendors will be responsible for collecting customer energy usage through the customer's home Wi-Fi network, and providing the data to the Company on a daily basis and in a standard format through a secure and encrypted process. Attachment A provides a diagram illustrating the equipment configuration for residential EV Service Pilot participants.

C. Pilot Design

1. Marketing, Customer Enrollment and Support

The most significant barrier to both electric vehicle adoption and enrollment in new rate structures, like the EV rate, is awareness. To raise awareness, we intend to incorporate best practices from market research, our own experiences with the EV rate and a smart charging pilot in Colorado, and other utilities and industry partners, by making our marketing, outreach, and enrollment effort:

- **Compelling** to motivate customers to take action;
- **Personalized** to draw customers in and demonstrate how the program could address their needs; and
- **Simple** and **convenient** to ensure customers understand the program and minimize the "hassle factor" that could be driving away potential participants.

Program outreach will rely on a combination of approaches that we anticipate will reinforce each other in order to encourage participation, including:

- **Targeted Marketing.** Customers will receive personalized communications from the Company inviting them to participate in the pilot. In addition, the Company will pay for search advertisements targeting key points of the customer learning process, particularly when they are evaluating options before purchasing an EV and also after they start driving their EV and may be looking to learn more about charging and potential rate options;
- **Social media and word-of-mouth promotion.** Our service territory has a dedicated community of EV enthusiasts who share information about new technologies, promotions, and programs, and peer-to-peer recommendations will be an important approach for recruitment. Our marketing plan includes initiatives to provide promotional materials and tools for sharing information,

[13] While customers have the option to pay for the unit on an upfront basis, the Company will maintain ownership over all units during the term of the pilot to ensure that it maintains maintenance responsibilities for the equipment and prohibit participating customers from modifying, moving, or tampering with the EVSEs during the pilot. The Company will transfer ownership of the EVSE to customers who paid upfront at the end of the pilot or following any termination of the customer's participation in the pilot for any reason.

and the Company will continue to seek input from stakeholders on promoting the program; and

- **Incentives for referrals.** In order to encourage others to promote the program, the Company intends to offer a referral incentive so auto dealers are rewarded for helping recruit pilot participants.

For enrollment, customers will go to the Company's website to initiate the process. Customers will then be able to choose an EVSE technology, and schedule an install, review the customer service agreement, and then complete the enrollment online.

As part of the pilot, we seek to learn more about what approaches resonate the most with our customers, and intend to survey customers and seek feedback to continue to improve customer marketing and enrollment processes for electric vehicle programs and the EV charging rate.

2. Customer Commitment and EVSE Installation

Customers may enroll in the EV Service Pilot for six months after the launch, or until the maximum of 100 pilot participants is reached, whichever is earlier. Eligible participants in the EV Service Pilot will sign a customer agreement as discussed in Section D below, and then arrange to have their EVSE installed by a Company-approved contractor.

The Company will coordinate scheduling, install, and inspect each EVSE with support from contractors selected through a competitive process. We believe this straightforward and simple customer experience will reduce the "hassle factor" while also ensuring required permitting and safety measures are performed.

The contractor will provide the customer and the Company with detailed cost estimates. The contractor will invoice the Company for EVSE installation costs, and it will be the customer's obligation to pay for the premise wiring and associated permits.

3. Customer Costs

As discussed, to take service under the current EV charging rate, customers incur several out-of-pocket expenses. These expenses include:

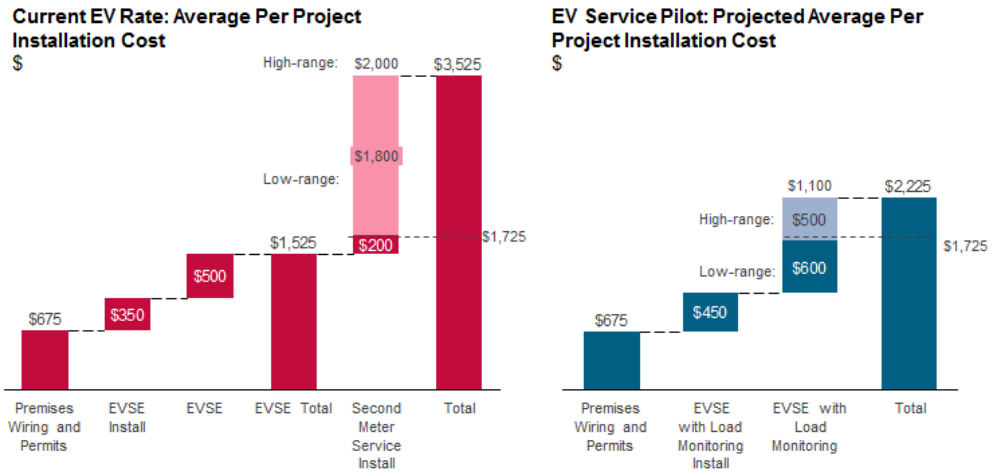
- The acquisition and installation of a parallel service line and meter housing

equipment for a second, parallel meter;[14]

- The acquisition and installation of a charging device and/or a dedicated wall outlet;[15] and
- Premise wiring and permit costs, including upgrades to the service panel and new conduit wiring.[16]

On average, the Company and participants in this proceeding have estimated that these total costs may range from $1,725 to $3,525 per customer,[17] with the cost of the acquisition of the second metered service being between $200-$2,000.[18] As illustrated below in Figure 1, the EV service pilot could reduce the initial cost to participate in an EV charging rate option.

FIGURE 1: Cost Comparison Estimates of Installations for Current EV Charging Tariff and Proposed EV Service Pilot



[14] Includes an additional meter socket for the second meter and, depending on the service connection, an upgraded service entrance conductor (the conductor going through the mast between the line side of the meter socket, through the weather head, and to the point of delivery), new service entrance conduit, and upgrades to junction box/wire way for dedicated service.

[15] Includes all means and devices to deliver electricity from the premises wiring to the electric vehicle (e.g. EVSE or dedicated wall outlet). The installed costs can also include ungrounded, grounded, and equipment grounding conductors, the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatuses associated with the installed device.

[16] Includes upgrades or installations of a new service panel and/or breaker, wiring, final junction box, receptacle, and all attachments and connections.

[17] Average cost estimates were derived from various data sources: Electric Power Research Institute. *"Electric Vehicle Supply Equipment Installed Cost Analysis" 2013. Report No. 3002000577;* Avista. "Docket No. UE-160082 – Avista Utilities Quarterly Report on Electric Vehicle Supply Equipment Pilot Program;" Aug 2017; Docket No. UE-160082; and Docket No. E-002/M-15-111; Xcel Energy Analysis.

[18] Based on the record developed in Docket No. E-002/M-15-111. Other utilities with EV rates requiring a second meter suggest installation costs could be even higher than $2,000. For instance, So Cal Edison advises its customers that a second meter for their electric vehicle rate could cost as much as $3,000: https://www.sce.com/wps/portal/home/residential/electric-cars/residential-rates (accessed Oct 2017).

While the EVSE with embedded load monitoring capabilities may cost incrementally more than a non-networked option, customers will avoid the cost of upgrades for installing a second meter. Total cost reductions for equipment and installation could be as high as $1,800.[19]

Upfront cost savings for customers could be even greater since the Company will offer customers the option to pay for the equipment through a fixed monthly charge. As a result, customers could save $1,050 upfront, significantly alleviating the upfront cost barrier. Total upfront cost savings between enrollment in the current EV rate and the new EV Service Option could be $2,850.[20]

Because seeking and confirming the potential for cost savings is a key objective of this pilot, the Company will be analyzing both the contractor's actual costs for installing and wiring the device at the customer's home, as well as the contractor's estimate for installing a second metering device as is required under the Company's current EV Service rate option. In offering this pilot, the Company will not modify or discontinue the terms of the current EV Service rate option, and therefore will avoid introducing further variables into the cost analysis.

4. Pilot Operations

Participants in the pilot will include existing EV drivers and new EV drivers, all of whom will be Xcel Energy customers. Regular reviews, adaptive management, and adjustments during the 30-month period are expected. Further details are provided below.

Customer EVSE selection: customers will choose their EVSE from a pre-approved list of vendors that met the Company's performance requirements. The Company will work with each vendor to highlight the features of each vendor's EVSE technology on the Company's website.

EVSE Payment Options: customers will have two payment options under this pilot. First, customers can elect to receive EVSE charging equipment and have that

[19] Average cost estimates were derived from various data sources: Electric Power Research Institute. *"Electric Vehicle Supply Equipment Installed Cost Analysis." 2013. Report No. 3002000577;* Avista. "Docket No. UE-160082 – Avista Utilities Quarterly Report on Electric Vehicle Supply Equipment Pilot Program." Aug 2017; Docket No. E002/M-15-111 (Jan. 1, 2015); Xcel Energy RFP (trade secret); Docket No. E-002/M-15-111; and Xcel Energy Analysis

[20] Average cost estimates were derived from various data sources: Electric Power Research Institute. *"Electric Vehicle Supply Equipment Installed Cost Analysis." 2013. Report No. 3002000577;* Avista. "Docket No. UE-160082 – Avista Utilities Quarterly Report on Electric Vehicle Supply Equipment Pilot Program." Aug 2017; Docket No. E002/M-15-111 (Jan. 1, 2015); Xcel Energy RFP (trade secret); Docket No. E-002/M-15-111; and Xcel Energy Analysis

equipment installed at their home without making any upfront payment for the equipment or installation. These customers will pay the "bundled" service customer charge, which includes cost recovery of Company-provided EVSE charging equipment and installation costs. Alternatively, customers can elect to pay the full cost of their EVSE charging equipment and installation. These customers will then pay a reduced "pre-pay option" service customer charge that excludes the installed EVSE cost. In both cases, customers will be responsible for the costs of premises wiring and permits for the EVSE install.

Evaluation: the pilot will seek to confirm cost savings. As part of the installation, the contractor will provide a quote on what the cost of installing a second metered service would be. In other words, contractors will estimate the cost of the participant enrolling in the existing EV Service rate (via the installation of a second meter). At the end of the pilot, the Company will compare the average cost per install to the contractor estimates of what it would have cost customers to participate in the current EV Service rate. Additionally, the Company will assess the performance of the equipment in the field, including the equipment's ability to store, manage, and transfer data consistent with the Company's needs for billing purposes.

Activation and Billing Cycles: when the Company and EVSE vendor have confirmed that the EVSE is installed and operational, the EVSE will be considered activated. Activations must be received by the Company at least 5 business days prior to the start date of the customer's next billing cycle to become effective on that date. If activation is received less than 5 days prior, Participants will become effective on the stated date of the Participant's subsequent billing cycle.

Data Records: the Company will work with EVSE vendors to ensure EVSE load monitored data is properly formatted, accurate, and timely submitted to the Company.

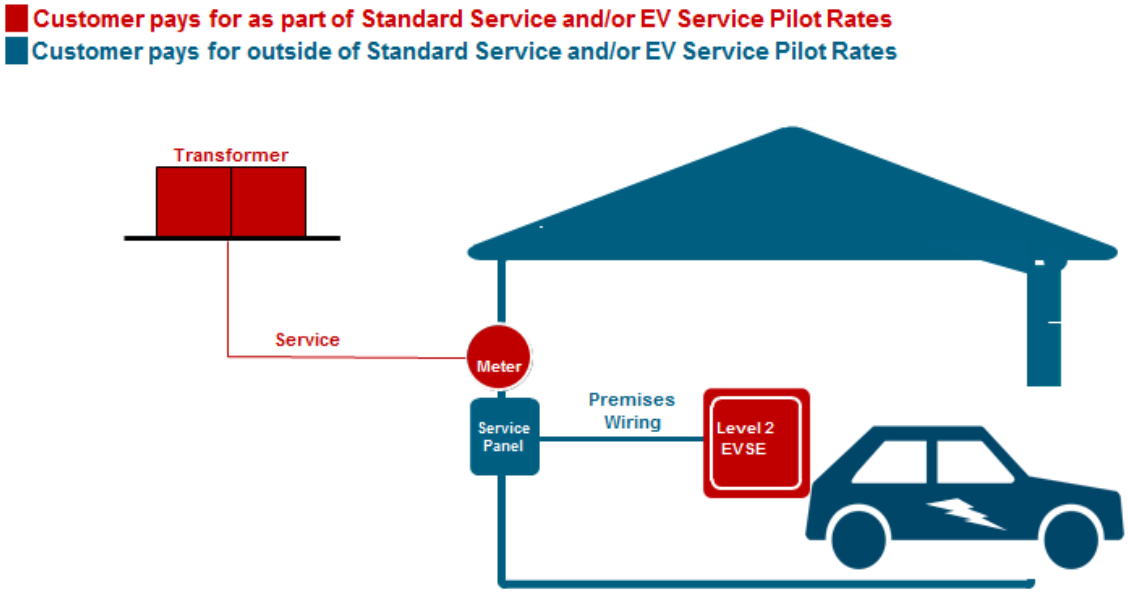
Primary Meter and EVSE Bill Calculation: the customer's primary metered usage is billed according to the customer's current tariff, and the EVSE usage is billed according to the residential electric vehicle pilot rate schedule. The primary meter billed amount will subtract the EVSE usage, assuming the EVSE timely submits accurate usage information, as described below.

Sample Bill: see a sample bill provided as Attachment B, which illustrates how a participant would see, via a clear and transparent statement, the amount of energy consumed under the tariff as required by the statute.

5. Rate Design

Pilot customer charges for both bundled and pre-pay option (EVSE upfront payment) service include metering costs as required by statute by recognizing the costs associated with acquiring EV energy usage. The bundled monthly customer charge for the pilot is $27.45 and includes cost recovery for Company provided and installed EVSE equipment. The pre-pay option monthly customer charge for the pilot is $13.88 and excludes cost recovery for Company provided and installed EVSE equipment, which recognizes the customer upfront payment for the installed EVSE equipment. Figure 2 below depicts the equipment costs that the customer is paying for as part of the Company's standard service and the EV Service Pilot.

FIGURE 2: Summary of Cost Allocations



The pilot includes on-peak and off-peak energy rates that are the same as those in both the current Residential Electric Vehicle Service tariff and the current whole house Residential Time of Day Service tariff. Table 1 below summarizes the rate options, including this proposed Residential EV Service Pilot that the Company offers customers with electric vehicles.

Table 1: Comparison of Rate Options for Residential Customers with Electric Vehicles

Rate Options		Customer upfront out-of-pocket expenses	Customer monthly charge for EV Service ($)	Services included in monthly charge for EV Service	Illustrative monthly usage charges for EV driving* ($)
Dedicated Electric Vehicle Rates	*Existing* **Residential Electric Vehicle Service** Rate Code: A08	• EVSE and Installation** • Premise Wiring • Housing for second meter	$4.95	•Second, Parallel Meter •Customer Service •Customer accounting	$24.64
	Proposed **Electric Vehicle Service Pilot Bundled Service** Proposed Rate Code: A80	•Premise Wiring	$27.45	•EVSE and Installation payment •Customer Services •Customer accounting •Load Monitoring and Data Management •Maintenance Service	$24.64
	Proposed **Electric Vehicle Service Pilot with Pre-pay Option** Proposed Rate Code: A81	• EVSE with load monitoring technologies and Installation • Premise Wiring	$13.88	•Customer Services •Customer accounting •Load Monitoring and Data Management •Maintenance Service	$24.64
"Whole Home" Rates	**Residential Service** Rate Codes: A00, A01, A03	• EVSE and Installation** • Premise Wiring	$0.00	N/A	$38.53
	Residential Time-of-Day Rate Rate codes: A02,A04	• EVSE and Installation** • Premise Wiring	$0.00	N/A	$24.64

*Assumes 1,000 miles of driving per month; 3.3 kWh per mile; 95% of charging off-peak. Includes fuel and rider charges.
**In some cases, residential customers will use a dedicated wall outlet instead of an EVSE for charging.

6. Annual Reporting

The Company will file annual reports on or before June 1st after the first full year following pilot implementation, which will be included are part of our annual report in Docket No. E002/M-15-111. Our reports will note progress from key indicators, including the number of customers who have arranged to purchase electricity under the tariff and the total amount of electricity sold under the tariff (shown on a quarterly basis), as required by statute. The annual report will also include the tracker balances as well as key learnings from the pilot. The Company will report progress on its key objectives, including an analysis of any cost savings for pilot participants compared to two-meter alternatives. The Company will also report on learnings regarding the customer experience and pilot performance under our safety and reliability standards. As the learnings may be beneficial to all parties in real time, the Company will continue to pursue innovations in providing services to meet EV driver needs, even as the pilot is in progress.

D. Terms of Participation

The EV Service Pilot Customer Agreement (Attachment C) and Tariff (Attachment D) address the specific terms and conditions for participation in the EV Pilot program.

Some of the key terms for customer participation include the following:

Eligibility and Availability: to be eligible to participate in the pilot, participants must:

- receive residential electric service from Xcel Energy in Minnesota with no past due bills;
- live in a single-family home, defined as a detached single family home, townhome/row house, or duplex;
- have possession of an electric vehicle, through ownership or lease;
- have wireless internet (WiFi) service at Site;
- not participate in the current Residential EV Service Rate;[21]
- not participate in the Residential Time of Day Service Rate;[22]

[21] Rate Code A08.

- not participate in the Time of Use Rate Design Pilot Program; and
- not participate in the Company's net metering tariffs.[23]

Pilot Term: 24-month term. At the end of the term, customers who are paying the bundled service customer charge will have the following options:

- Customers can have the EVSE removed at no cost and move back to their previous rate;
- Customers can purchase the EVSE from the Company for a cost equal to the undepreciated balance of the EVSE and either (i) move back to their previous rate or (ii) move to any new EV charging tariff offered by the Company that is compatible with the EVSE already in place;[24] and
- Customers can have the EVSE replaced or upgraded if the Company offers a new EV Charging tariff involving a different technology.

Customers who paid for the EVSE upfront and are paying the pre-pay option service customer charge will have the following options at the end of the term:

- Customers can elect to have the Company transfer ownership of the EVSE to the customer at no cost and either (i) move back to their previous rate or (ii) move to any new EV charging tariff offered by the Company that is compatible with the EVSE already in place; and
- Customers can have the EVSE replaced or upgraded if the Company offers a new EV Charging tariff involving a different technology.

Site Selection: all residential site locations shall qualify if the customer meets all eligibility criteria of the program and the site has sufficient space for locating and maintaining the EVSE.

Ownership of EVSE: all equipment installed will be owned and maintained by the Company for the duration of the Pilot. Following termination of the pilot, the Company will continue to own all EVSE equipment subject to the bundled service customer charge (*i.e.*, that which has not been paid for by the customer on an upfront basis). For customers paying the pre-pay option service customer charge (*i.e.*, those

---

[22] Rate Code A02 and AO4.

[23] We understand some customers with rooftop solar may wish to participate in the Company's pilot. Those customers are not eligible at this pilot stage, however, as metering configurations frustrate the requirement to bill customers accurately. Specifically, when a solar PV installation is generating power (regardless of how much load it is supplying), there will be a billing discrepancy for EV charging. The EV charger is incapable of differentiating its supply from power supplied by the grid versus the customer's generation. When the energy per time period is measured later, a larger proportion of the actual house load will appear as EV load, since the solar is not separately accounted for. See Attachment E for a diagram illustrating configurations for rooftop solar customers.

[24] Customers moving to any new EV charging tariff offered by the Company would need to sign a new Customer Agreement.

who paid for equipment and installation on an upfront basis), the Company will transfer ownership of the EVSE equipment to each customer at the end of the pilot or following any termination of the customer's participation in the pilot for any reason.

Customer obligations: all customers agree to:

- participate in customer surveys and provide feedback about the Program;
- provide access and assistance to facilitate random meter testing;
- be responsible for routine inspection, maintenance, and troubleshooting not requiring technicians (e.g. resetting the circuit breaker);
- operations and maintenance of the EVSE requiring technician support will be accomplished by qualified contractors, who will be selected through a competitive process conducted by the Company; and
- receive communications from the Company related to the Program by e-mail.

E. Accounting Treatment

The purchase and installation of the EV charging and metering equipment will be capitalized as an Electric Distribution asset to FERC Account 101, Plant in Service in plant account 370 Meters. The EV bundled service customer charge (see Rate Design discussion in Section C-5 above) will be designed to recover the carrying cost for this asset during the pilot. The Company also requests that the capitalized costs be allowed in rate base and receive a return on investment. Treatment of these assets at the end of the pilot will be dependent on the pilot's outcome and end-of-life accounting treatment will be made at that time. The EV bundled service customer charge is also designed to recover the costs for customer accounting, customer services, including load-monitoring and data management and maintenance of the EVSE charging equipment. The pre-pay option service customer charge (see Rate Design discussion in Section C-5 above) is designed to recover the same costs with the exception of the installed EVSE unit cost.

Additionally, the Company expects to incur certain costs for customer education and information initiatives associated with the pilot program. We are requesting that these costs be included in the existing tracker account under our EV Service tariff in Docket No. E002/M-15-111 used for the recovery of communications costs. The Company will petition the Commission to recover qualifying costs in a future rate proceeding. This proposed approach recognizes uncertainty in the cost of our preliminary marketing plans and the costs that will qualify for a tracker account. Including EV communication costs only in a rate component for the proposed Residential EV Service Pilot Tariff would make it an inconsistent and uneconomic

alternative to existing tariffs that are also used for EV charging. Table 2 below provides a budget for the customer education and information initiatives we propose for the tracker.

TABLE 2: Customer Education and Information Budget for Tracker

Year 1 Electric Vehicle Service Pilot: Education and Information Budget	**Estimated Amount**
Dealer and Trade Outreach	$ 10,000
Dealer Referral Incentive	$ 10,000
Events/Collateral	$ 7,000
Digital Channels	$ 6,700
Direct Mail	$ 4,500
Bill Onserts	$ 3,000
Total	**$ 41,200**

The estimated amounts above have been produced through experience performing the same or similar activities for other programs, including the current EV Service tariff. At times, actual execution of the promotion plans will vary based on new opportunities that present themselves or market responses that are different than anticipated. A more detailed of activities that are currently planned include:

Dealer & Trade Outreach – The Company, with support from third-party vendors, will conduct outreach and training events to inform auto dealers and electricians about rates and charging options.

Dealer Referral Incentive – The Company will offer a referral incentive to dealers who drive enrollment in the EV Service Pilot.

Events/Collateral – The Company will sponsor or host community events to distribute information about electric vehicles, such as the National Drive Electric Week events at the Mall of America and the St. Paul Farmers Market.

Digital Channels – XcelEnergy.com will continue to be the central resource for most of the electric vehicle information. Additionally, paid social media advertising will be used to target customers that may likely drive or be interesting in driving electric vehicles.

Direct Mail – Information brochures mailed to known electric vehicle drivers.

Bill Onserts – A bill message with information about the Electric Vehicle Rate will be targeted to customers that may likely drive or be interesting in driving electric vehicles.

F. Public Interest

The proposed pilot is designed to refine the terms of service to better serve EV drivers, and to provide a learning opportunity for the Company, its customers, regulators, and other stakeholders. As discussed, the goals of the pilot are to reduce the initial barriers of entry inherent in EV charging rate adoption, improve the EV driving customer's experience, and to ensure safe and reliable service consistent with our standards through the provision of a tailored EV service platform. Additionally, the Company will gain important insight into how this type of service would affect utility operations in the event of a more wide spread roll-out of the service.

We believe the Company's proposal is reasonable in its approach. Because the pilot is designed to improve upon our existing tariffed offer, we believe the overall scale is appropriate. The pilot is size-aligned with our current EV charging offer and positioned to provide a meaningful opportunity to test assumptions about equipment performance, installation costs, and service options. We believe the investments made pursuant to this pilot will benefit all customers and represent an efficient opportunity to prepare for future growth in EV market penetration.

We also believe the Company's proposal is supported by the public interest, as there are numerous public benefits promoted by the pilot design. These include promoting customer optionality with the inclusion of alternative vendors. The pilot design also encourages shifting energy loads to off-peak times, which benefits the system as a whole.

The Company's proposal to purchase the EVSE and offer customers a choice of a service options—either paying upfront or through inclusion in the monthly customer charge—preserves optionality we understand is important to customers. The Company's proposal benefits from learnings in other jurisdictions, such as in Washington State where Avista Corporation is piloting a model which includes a similar depreciation treatment for assets as proposed by the Company here.

G. Request for Exception to Minnesota Rules for Pilot Equipment

As already discussed, we intend to deploy multiple equipment options that will be used to measure each customer's EV-related usage. All of these devices will rely on

an internet connection—and more specifically, a customer's home Wi-Fi network—to transmit this usage data to the Company for billing purposes. Thus, unlike traditional meters used by the Company, the pilot equipment's functionality will depend on the customer's maintenance of a stable and adequate Wi-Fi network, as well as other connectivity issues that do not apply to traditional meters. The reliability of these technologies and their reliance on the customer's home network are among the issues we hope to explore through this pilot.

To that end, we are requesting that the EV charging equipment be exempted from the Commission's meter-related rules—including Rules 7820.3700 and 7820.3800—as well as Section 3 of the Company's Electric Rate Book Section 6 tariff (Metering and Billing). In effect, we propose not to define the EV charging equipment as "metering equipment" for purposes of this pilot and the above-cited rules and tariff, and instead that the equipment be governed by the specific provisions in our proposed tariff and Customer Agreement for this pilot. We believe this request is reasonable given the limited nature of the pilot, our interest in using new technologies to enhance our customer's experience with the EV Service rate, and our efforts to specifically address equipment functionality issues in our proposed tariff for this pilot.

CONCLUSION

The Company submits this filing for Commission consideration and respectfully requests its approval to:

- approve our proposal for implementing a Residential EV Service Pilot Program;
- approve our proposed Customer Agreement and Residential EV Service Pilot Tariff;
- approve our proposed accounting treatment; and
- approve our request for a rule variance.

Dated: November 17, 2017

Northern States Power Company

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Nancy Lange	Chair
Dan Lipschultz	Commissioner
Matthew Schuerger	Commissioner
Katie J. Sieben	Commissioner
John Tuma	Commissioner

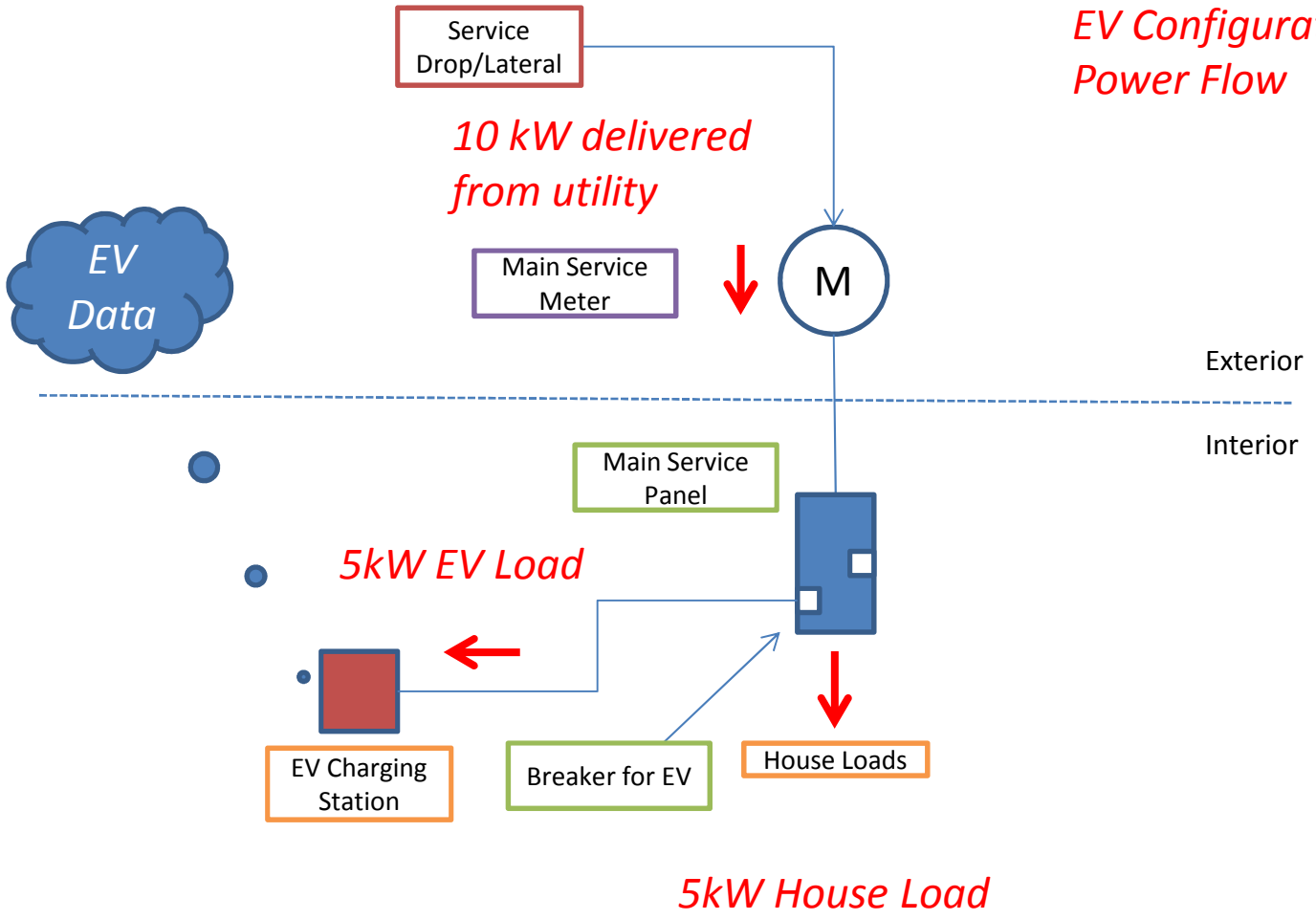
IN THE MATTER OF THE PETITION OF NORTHERN STATES POWER COMPANY FOR APPROVAL OF A RESIDENTIAL EV SERVICE PILOT PROGRAM

DOCKET NO. E002/M-17-____

PETITION

SUMMARY OF FILING

Please take notice that on November 17, 2017, Northern States Power Company, doing business as Xcel Energy, filed with the Minnesota Public Utilities Commission a Petition for approval of a Residential EV Service Pilot Program. The Company proposes to offer customers a pilot that pairs an off-peak charging incentive through Time of Use rates with a Company-offered Level 2 charging solution. The pilot will seek opportunities for cost savings compared to the Company's current customer offers. The pilot will also seek to improve the customer experience while maintaining safe and reliable electric service.



Example with numbers (assume constant loads for 1 hour).

- *10kW delivered over 1 hour equals 10kWh (energy = power x time, kW x hour =kWh)*
- *The charger has received 5kWh over the hour period*
- *The house load has received the other 5kWh of energy over the hour period*

The bill will indicate that 5kWh was drawn by the EV charger while the other 5kWh was for the house loads, enabling the proper rates to be billed per usage.

Northern States Power Company

Xcel Energy®
RESPONSIBLE BY NATURE®

MAILING ADDRESS	ACCOUNT NUMBER		DUE DATE
J. SMITH 5555 MAIN STREET CITY MN 55XXX-XXXX	XX-XXXXXXX-X		05/18/2017
	STATEMENT NUMBER	STATEMENT DATE	AMOUNT DUE
	XXXXXXXXX	4/09/2017	$180.09

DAILY AVERAGES	Last Year	This Year
Temperature	32° F	32° F
Electricity kWh	32.3	41.9
Electricity Cost	$3.61	$5.83

QUESTIONS ABOUT YOUR BILL?

See our website: xcelenergy.com
Email us at: Customerservice@xcelenergy.com

Call 24 hours a day, 7 days a week

Please Call: 1-800-895-4999
Hearing Impaired: 1-800-895-4949
Español: 1-800-687-8778

Or write us at: XCEL ENERGY
PO BOX 8
EAU CLAIRE WI 54702-0008

Like us on Facebook Follow us on Twitter

SUMMARY OF CURRENT CHARGES (detailed charges begin on page 2)

Electricity Service	03/08/17 - 04/08/17	1300 kWh	$180.59
Current Charges			**$180.59**

ACCOUNT BALANCE

Previous Balance	As of 03/08	$110.10
Payment Received	Check 03/29	-$110.10 **CR**
Balance Forward		**$0.00**
Current Charges		$180.09
Amount Due		**$180.09**

INFORMATION ABOUT YOUR BILL

Thank you for your payment.

RETURN BOTTOM PORTION WITH YOUR PAYMENT • **PLEASE DO NOT USE STAPLES, TAPE OR PAPER CLIPS**

Xcel Energy®

ACCOUNT NUMBER	DUE DATE	AMOUNT DUE	AMOUNT ENCLOSED
XX-XXXXXXX-X	05/18/2017	$180.09	

To avoid a late pay charge of 1% of the unpaid balance, payment of total amount must be received by due date.
Make your check payable to XCEL ENERGY

MAY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

------ manifest line ---------

J. SMITH
5555 MAIN STREET
CITY MN 55XXX-XXXX

XCEL ENERGY
P.O. BOX 9477
MPLS MN 55484-9477

Xcel Energy®

MAILING ADDRESS	ACCOUNT NUMBER		DUE DATE
J. SMITH 5555 MAIN STREET CITY MN 55XXX-XXXX	XX-XXXXXXX-X		05/18/2017
	STATEMENT NUMBER	STATEMENT DATE	AMOUNT DUE
	XXXXXXXXX	04/09/2017	$180.09

SERVICE ADDRESS: **5555 MAIN STREET CITY MN 55XXX-XXXX**
NEXT READ DATE: 05/08/17

ELECTRICITY SERVICE DETAILS

PREMISES NUMBER: 123456789
INVOICE NUMBER: XXXXXXXXXX

METER READING INFORMATION

METER 12345678 Read Dates: 03/08/17 - 04/08/17 (31 Days)

DESCRIPTION	CURRENT READING	PREVIOUS READING	MEASURED USAGE	BILLED USAGE
Total Energy	9300 Actual	8000 Actual	1300	1300 kWh
Energy	9000 Actual	Actual	1000	1000 kWh

ELECTRICITY CHARGES — RATE: Residential Service

DESCRIPTION	USAGE UNITS	RATE	CHARGE
Basic Service Chg			$ 8.00
Energy Charge Winter	1000 kWh	$0.090320	$ 90.32
Fuel Cost Charge	1000 kWh	$0.030000	$ 30.00
Total			**$128.32**

METER READING INFORMATION

EVSE (Possible ID#) **Read Dates: 03/08/17 - 04/08/17 (31 Days)**

DESCRIPTION	CURRENT READING	PREVIOUS READING	USAGE
Total Energy	300 Actual	Actual	300 kWh
On-Pk Energy	20 Actual	Actual	20 kWh
Off-Pk Energy	280 Actual	Actual	280 kWh

ELECTRICITY CHARGES — RATE: EV Pilot Service

DESCRIPTION	USAGE UNITS	RATE	CHARGE
Basic Service Chg			$27.45
Off-Peak Energy Chg	280 kWh	$0.04260	$11.93
On-Peak Energy Chg Winter	20 kWh	$0.16968	$3.39
Fuel Cost Charge	300 kWh	$0.03000	$9.00
Total			**$51.77**

EV Service Pilot Customer Service Agreement

Xcel Energy is excited to offer the Electric Vehicle Service Pilot ("Pilot") to its Minnesota residential rate electric customers.

As part of the Pilot, Xcel Energy will offer participant Customers (individually, "Participant" or, collectively, "Participants") installation of Electric Vehicle Supply Equipment ("EVSE") and enrollment in the Electric Vehicle Rate. The Pilot is described in more detail in the General Rules and Regulations and/or in the Rate Schedules of Xcel Energy's Electric Rate Book for Customer's specific service, as they now exist or may hereafter be changed, on file with Minnesota Public Utility Commission. Unless otherwise defined in the Service Agreement, the definitions, terms, and conditions set forth in the Electric Vehicle Service Pilot, General Rules and Regulations and Rate Schedules are applicable to this Service Agreement, summarized in the following chart, as if fully set forth herein.

EV Service Pilot Offerings

Rate Options	**Customer upfront out-of-pocket expenses**	**Customer monthly charge for EV Service ($)**	**Services included in monthly charge for EV Service**	**Monthly usage billed**
Electric Vehicle Service Pilot Bundled Service Rate Code: A80	•Premise Wiring	$27.45	•EVSE and Installation payment •Customer Services •Customer accounting •Load Monitoring and Data Management •Maintenance Service	EV charging is billed at on-peak and off-peak-rates
Electric Vehicle Service Pilot with Pre-pay Option Rate Code: A81	• EVSE with load monitoring technologies and Installation • Premise Wiring	$13.88	•Customer Services •Customer accounting •Load Monitoring and Data Management •Maintenance Service	EV charging is billed at on-peak and off-peak-rates

In order to enroll in the Pilot, please review these terms and indicate your understanding and agreement below by selecting the appropriate check box on the Program enrollment page at

[link to be generated at xcelenergy.com]. Xcel Energy will notify the Customer (a) that Customer's eligible EVSE has been installed, and (b) Xcel Energy and the EVSE vendor have confirmed that the EVSE is operational and activated, by e-mail (the date of the e-mail will be the "Activation Date").

Definitions

"Electric Vehicle" means a vehicle that uses at least one method of propulsion that is capable of being reenergized by an external source of electricity, is designed to have the capability to drive at a speed of more than 35 miles per hour, and is licensed to drive on state and federal highways.

"Electric Vehicle Supply Equipment" means the installed device used to deliver electricity from the Premises Wiring to the electric vehicle, meeting Standard J1772 of the Society of Automotive Engineers International and listed under applicable UL Standards and requirements or equivalent listing by a nationally recognized testing laboratory. This device includes the ungrounded, grounded, and equipment grounding conductors, the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets or apparatuses associated with the installed device, but does not include Premises Wiring.

"Premises Wiring" means a dedicated 208/240VAC, 40 ampere or lower circuit that supplies electricity directly to the installed Electric Vehicle Supply Equipment. This includes the protective breaker at the supply panel, wiring, final junction box, receptacle and all attachments and connections. The Participant retains ownership and is wholly responsible for the Premises Wiring, including that it meets all workmanship standards and applicable requirements in the National Electric Code, Minnesota law and Administrative Rules, and local municipal codes.

"Site" means the enclosed garage or other area approved by Xcel Energy on single-family home property, (defined as a detached single home, townhome/rowhouse, or duplex) owned by Participant

1. Eligibility and Availability

To be eligible to participant in the EV Service Pilot, Participants must:

- have an active Xcel Energy service account in Minnesota with no past due bills.
- live in a single-family home, defined as a detached single family home, townhome/row house, or duplex;
- represent that the Site is owned by Participant, is located within Xcel Energy's Minnesota regulated electrical service territory, and corresponds with a Xcel Energy residential electrical account on which the EVSE will be installed
- complete Xcel Energy-approved documentation verifying possession, through ownership or lease, of an electric vehicle as defined in Section 169.011, subdivision 26a of Minnesota law

- have an approved EVSE installed by Xcel Energy, or an authorized third-party independent contractor on its behalf, for the exclusive use of tracking the energy used to charge their electric vehicle.

- have wireless internet ("Wi-Fi") service at Site.

- not be on current Residential EV Service Rate (RATE CODE A08). If participant is already enrolled, they must unenroll for the duration of their participation on the new EV Service Pilot.

- not participate in the Residential Time of Day Service Rate (RATE CODE A02, AO4). If Participant is already enrolled, they must unenroll for the duration of their participation on the new EV Service Pilot.

- not participate in the Time of Use Rate Design Pilot Program. If Participant is already enrolled, they must unenroll for the duration of their participation on the new EV Service Pilot.

- not participate in the Company's Net Metering tariffs.

2. EVSE Installation, Maintenance, and Title

- 2.1 Xcel Energy, through its network of authorized third party independent contractors and at its expense, shall provide, install, maintain, repair or replace (collectively the "Work") the EVSE on property owned by Participant (the "Site"). The EVSE shall include a vehicle charging station and associated cords, electrical lines, wires, conduit, cables and equipment. Xcel Energy shall provide electric utility services to Participant, and Participant shall pay for such service consistent with the applicable electric utility tariff in force and effect. Xcel Energy, in Xcel Energy's sole discretion, shall have the right to repair, modify, or replace the EVSE at any time during the Term of this Agreement.

- 2.2 Upon completion of installation and at all times during the Term of this Agreement, ownership of and title to the EVSE shall remain with Xcel Energy. Participant shall ensure that any EVSE shall not be subject to any lien, security interest or other claim asserted by any creditor of Participant, and any sale of the Site by Participant shall not include the EVSE.

.

- 2.3 Participant shall maintain the connection between the EVSE and an Internet Service Provider via Wi-Fi connection, for the operation of the EVSE under this Agreement. Late, incomplete, or inaccurate EVSE usage information will be disregarded where the lack of Wifi service is the cause of the data transmission failure. As a result, any actual EV charging during these intervals will be billed at the Participant's current rate and will not be adjusted in any future bills if any EV usage data is subsequently received.

3. Participant's EVSE Obligations and Duties

Throughout the Term of this Agreement:

- 3.1 Participant shall grant to Xcel Energy such access to the Site and sufficient space for locating the EVSE at the Site as may be deemed necessary or desirable by Xcel Energy for the Work. Installations must conform to the Company's specifications.

- 3.2 Until the EVSE (in Xcel Energy's sole discretion) is deemed non-functional, Participant hereby consents to and shall permit both Xcel Energy and any underlying EVSE manufacturer, vendor or subcontractor to the underlying manufacturer or vendor to access, collect and share with their respective parent, affiliates, subsidiaries and subcontractors all data from the EVSE with respect to vehicle charging activity, vehicle usage and technical performance (the "Data") of the vehicle and EVSE. Xcel Energy shall comply with all federal, state, and local laws, as applicable, in the access, collection, and sharing of the Data. In the event the EVSE fails to operate or otherwise requires repair, Participant shall promptly notify Xcel Energy.

- 3.3 Participant, Xcel Energy and its authorized EVSE manufacturers, vendors, and subcontractors shall comply with all applicable rules and regulations of federal, state or city regulatory agencies relating to the Work and operation of the EVSE, including environmental requirements associated therewith.

- 3.4 Participant shall maintain the area surrounding the EVSE and will promptly notify Xcel Energy of any problems related to the EVSE that Participant becomes aware of. Such maintenance includes, but is not limited to, pavement maintenance, pruning of vegetation, and snow removal. For avoidance of doubt, Participant is not responsible for the ongoing maintenance of the EVSE, itself.

- 3.5 Participant agrees to remedy minor issues that do not require qualified technicians to address, such as resetting infrequently tripped circuit breakers.

- 3.6 Participant agrees to provide access and assistance to facilitate random EVSE testing, if selected. Such cooperation may include, but not be limited to, periodic inspection of the EVSE and the addition of monitoring hardware or software at Xcel Energy's expense.

- 3.7 Participant agrees to participate in surveys and provide feedback about the Program as well as cooperate with Xcel Energy in fulfilling Xcel Energy's reporting requirements to any federal, state or local regulatory or governing entities.

- 3.8 Customer consents to receive communications from Xcel Energy relating to the Program in electronic form sent to Customer's email address.

- 3.9 If Participant who has opted into Electric Vehicle Service Pilot Bundled Service or Xcel Energy fails to meet any of its obligations under this Agreement, Xcel Energy may remove the EVSE. If Participant who has opted into Electric Vehicle Service Pilot with Pre-pay Option or Xcel Energy fails to meet any of its obligations under this Agreement, Xcel Energy may move Participant back to their previous rate.

4. Pilot Term, Withdrawal, and Termination

- 4.1 This Agreement shall be effective as of the Enrollment Date by both Parties. The term shall commence on the date when the EVSE is installed, and Xcel Energy and the EVSE vendor have confirmed that the EVSE is operational. The Agreement shall continue for two (2) years (the "Term") unless sooner terminated or extended by written agreement between the Parties.

- 4.2 All fees, rates, and charges applicable to Participant shall be assessed as provided in the General Rules and Regulations and/or in the Rate Schedules of Xcel Energy's Electric Rate Book for Customer's specific service, as they now exist or may hereafter be changed, on file with the Commission. All fees, rates and charges assessed by Xcel Energy under this Service Agreement shall be set forth on the retail electric bill of the Participant and be billed and collected similar to other retail electric charges.

- 4.3 The service hereunder shall be supplied for Participant's use as provided in the General Rules and Regulations in the applicable Rate Schedules of Xcel Energy's Electric Rate Book for Customer's specific service, as they now exist or may hereafter be changed, on file with the Commission. A Copy of such Rules and Regulations and applicable Rate schedules are available from Xcel Energy. Customer will not assign this Agreement except upon written consent of Xcel Energy.

- 4.4 Activations must be completed by Xcel Energy at least 5 business days prior to the start date of the customer's next billing cycle to become effective on that date. If activation is less than 5 days prior, Participants will become effective on the stated date of the Participant's subsequent billing cycle.

- 4.5 At the end of the term, customers who are paying the bundled service customer charge will have the following options:
    - Customers can have the EVSE removed at no cost and move back to their previous rate;
    - Customers can purchase the EVSE from the Company for a cost equal to the undepreciated balance of the EVSE and either (i) move back to their previous rate or (ii) move to any new EV charging tariff offered by the Company that is compatible with the EVSE already in place;[1] and
    - Customers can have the EVSE replaced or upgraded if the Company offers a new EV Charging tariff involving a different technology.

  Customers who paid for the EVSE upfront and are paying the pre-pay option service customer charge will have the following options at the end of the term:
    - Customers can elect to have the Company transfer ownership of the EVSE to the customer at no cost and either (i) move back to their previous rate or (ii) move to any new EV charging tariff offered by the Company that is compatible with the EVSE already in place; and

[1] Customers moving to any new EV charging tariff offered by the Company would need to sign a new Customer Agreement.

- Customers can have the EVSE replaced or upgraded if the Company offers a new EV Charging tariff involving a different technology.

- 4.6 If Participant requests termination of the Agreement prior to the expiration of the Term for convenience, then following notification from Participant to Xcel Energy advising Xcel Energy of Participant's intent to withdraw, Xcel Energy or a Xcel Energy third party independent contractor shall remove and take possession of the EVSE within sixty (60) days of Participation's notification at no cost to Participant, and this Agreement shall be terminated upon such removal. Xcel Energy or its authorized third party independent contractor's removal and possession of the EVSE shall not include any removal or possession of Premises Wiring. All such ancillary hardware will be disconnected by Xcel Energy or its authorized third party independent contractor and left in place at the Site.

- 4.7 If, due to a physical relocation of the Site within Xcel Energy's regulated service territory, Participant requests to relocate the EVSE (but not to terminate the Agreement before the end of the Term), then following at least a sixty (60) days' notification from Participant to Xcel Energy advising Xcel Energy of Participant's relocation request, Participant shall thereafter exclusively utilize Xcel Energy's third party independent contractor to install an EVSE at the new location at Participant's sole expense. Any removal and/or relocation of the EVSE at the original site shall be determined solely by Xcel Energy, utilizing Xcel Energy's third party independent contractor. In both cases, this Agreement shall remain in effect for the remainder of the Term. Participant acknowledges that failure to utilize Xcel Energy's third party independent contractor for EVSE installations or relocations under this Section 4.7 may result in voiding any EVSE warranty and/or maintenance support that may transfer to Participant at the end of the Term.

- 4.8 Xcel Energy, in its sole discretion, may terminate the Agreement prior to the end of the Term, in which case Xcel Energy will provide Participant with sixty (60) days' prior written notice and the option to (i) purchase the EVSE pursuant to Section 5 below, or (ii) have the EVSE removed at no cost to the Participant within sixty (60) days of termination. Participants may continue using the EVSE after termination, before it is purchased or removed.

5. Taxes on Sale of EVSE

- If Xcel Energy opts to sell the EVSE to Participant at the then undepreciated balance of the EVSE and Participant agrees to purchase the EVSE, then Xcel Energy will deliver to Participant a Bill of Sale for the undepreciated balance of the EVSE. Participant further agrees that in accordance with federal and state laws in effect at the time of the sale of the EVSE from Xcel Energy to Participant, that: (i) Participant shall be responsible for and shall pay transfer taxes, either directly to a taxing authority or to Xcel Energy, as required by law, related to the undepreciated balance of the EVSE as stated on the Bill of Sale; and (iii) Xcel Energy agrees to complete a Form W-9, "Request for Taxpayer Identification Number and Certification" in the event of such sale.

6. Title to Equipment and Data

- At all times under this Agreement where Xcel Energy shall own and maintain title to the EVSE, the Participant shall not make any alterations, changes or modifications to the EVSE without first securing prior written permission from Xcel Energy and/or any applicable underlying manufacturer. All rights, title and interest in the EVSE Data and related information collected from the EVSE shall also immediately vest in Xcel Energy.

  Xcel Energy shall therefore have the right to use, copy, and distribute such Data and information as necessary and helpful to evaluate electric vehicles and electric vehicle support equipment and for any other Xcel Energy business purpose. To the extent applicable, Xcel Energy shall indemnify and hold harmless the Participant from any and all claims whatsoever for the use and distribution of said Data.

7. Insurance Coverage

- Customer shall have in full force and effect a standard fire and homeowner's insurance policy with amounts sufficient to cover the full replacement cost of the Site. The Parties hereby waive any and all claims and rights of action (by way of subrogation or otherwise) against the other (and against any insurance company insuring the other Party) which may hereafter arise on account of bodily injury or damage to the EVSE or to the Site, resulting from any fire, or other perils or claims of the kind covered by standard fire and homeowner's insurance policies with extended coverage (Causes of Loss Special Form) regardless of whether or not, or in what amounts, such insurance is now or hereafter carried by the Parties, or either of them. Customer agrees that Xcel Energy selfinsures against any loss or damage which could be covered by a commercial general public liability insurance policy and or a property policy. **Customer shall give written notice of this mutual waiver to each insurance company which issues insurance policies to Customer with respect to the items covered by this waiver, and shall have Customer's insurance policies properly endorsed, if necessary, to prevent the invalidation of any of the coverage provided by such insurance policies by reason of such waiver.**

8. Indemnification

- To the extent permitted by applicable law (but except to the extent waived in Section 10 below), each Party shall indemnify and hold the other Party harmless against any third party claim of liability or loss from bodily injury (including mental or emotional or death of any person) or property damage (real, personal, tangible or intangible including without limitation real or personal property of any third party, the EVSE and any associated EVSE hardware) resulting from or arising out of the use of the Site by the Party, its servants or agents, except however, such claims or damages as may be due to or caused by the acts or omissions of the other Party, its servants, or agents.

9. Warranty

- 9.1 Xcel Energy warrants that EVSE work performed by Xcel Energy's network of authorized Third party independent contractors will be free from defects in materials and workmanship during the term of the agreement.

  In the event that any EVSE work performed is found to be defective in either materials or workmanship, Xcel Energy shall repair or replace such defective EVSE or work. The repair or replacement of such defective work is Participant's sole and exclusive remedy under this warranty for any failure of Xcel Energy to comply with Xcel Energy's Warranty Obligations, and Xcel Energy expressly disclaims any and all other warranties including any warranties of merchantability or fitness for a particular purpose, whether expressed or implied. For avoidance of doubt, repair, or replacement of non-conformities in the manner and for the period of time provided above shall constitute Xcel Energy's sole liability and Participant's exclusive remedy for failure of Xcel Energy to meet Xcel Energy's warranty obligations, whether any claims of host are based in contract, in tort (including negligence or strict liability), or otherwise.

- 9.2 At the end of the term of this agreement and should Participant opt to purchase the EVSE from Xcel Energy, then for all EVSE devices (including all associated EVSE cords and internal wiring), the sale will be as-is with no warranties and host assumes sole risk and responsibility for any remaining warranty action (if any).

10. Limits of Liability

A. Notwithstanding anything herein to the contrary, under no circumstances or legal theory, whether arising in contract, tort, strict liability, warranty, infringement or otherwise, shall either party be liable to the other party or any other person or entity for any indirect, consequential, secondary, incidental, special, reliance, exemplary or punitive damages, which includes but is not limited to: i) any property damage (real, personal, tangible or intangible) or personal injury (including mental or emotional distress) arising from or alleged to have arisen under this agreement; ii) any claims or causes of action that arise or are alleged to have arisen as a result of any required space ventilation not made known in writing to Xcel Energy or Xcel Energy's authorized third party independent contractor in writing prior to any work; iii) any damages arising or alleged to have arisen from any electrical malfunction or the repair or replacement of such malfunctioning items; or iv) any environmental claims, damage or causes of action.

B. Under no circumstances will Xcel Energy or any Xcel Energy authorized third party independent contractor be held liable to Customer or any other person or entity for matters involving the purchase, lease, use, non-use, or devaluation of any electric vehicle, plug-in hybrid vehicle or any vehicle of any nature, any EVSE or associated EVSE infrastructure when applicable codes or standards prohibit the installation or use of such vehicle or equipment. Xcel Energy will not pay for any costs incurred or damages sustained by customer for purchasing any vehicle or equipment or otherwise in reliance upon Xcel Energy being able to provide an AVSE to customer. Notwithstanding anything set forth in this agreement to the contrary, under no circumstances shall Xcel Energy's total liability under this agreement exceed the total cost of the EVSE plus

installation costs made by Xcel Energy under this agreement. This section shall survive the termination of this agreement.

11. Miscellaneous Provisions

A. Compliance with Laws. Performance under this Agreement is subject to all valid laws and regulations of courts or regulatory bodies having jurisdiction, including compliance with the Americans With Disabilities Act, as amended, if Participant is offering the EVSE to the general public.

B. Assignment. This Agreement shall not be assigned except with the prior written consent of all parties hereto. The terms and conditions of this Agreement shall bind any permitted successors and assigns of the parties.

C. Status of Parties. This Agreement shall not be construed as creating a partnership, joint venture, agency relationship, franchise or association, nor shall this Agreement render Xcel Energy and Participant liable as partners, co-venturers or principals. It is agreed that nothing shall operate to change or alter such relationship, except a further agreement in writing between them.

D. Severability. If any term or provision of this Agreement is held illegal or unenforceable by a court with jurisdiction over the Agreement, all other terms in this Agreement will remain in full force and the illegal or unenforceable provision shall be deemed struck. In the event that the stricken provision materially affects the rights, obligations or duties of either party, Xcel Energy and Participant shall substitute a provision by mutual agreement that preserves the original intent of the Parties as closely as possible under applicable law.

E. Governing Law. This agreement shall be governed by the laws of the state of Minnesota, except that the Minnesota conflict-of-low provisions shall not be invoked in order to apply the laws of any other state or jurisdiction.

F. Dispute Resolution. If any dispute arises between the Parties regarding issues of interpretation of the Agreement or the services performed pursuant to the Agreement, Customer may call the Xcel Energy Representative identified in Section 12 below during business hours Monday-Friday 8 a.m. to 5 p.m. If further follow-up is required, Customer shall provide Xcel Energy with written notice explaining the dispute and associated documentation. Xcel Energy will consider all disputes and respond within fifteen (15) days of receiving notice of a dispute. In the event Participant is dissatisfied with the resolution of the dispute, Participant has the right to file an informal or formal complaint with the Commission by contacting the Minnesota Public Utility Commission. Xcel Energy will take no other action to enforce this Agreement until any complaint filed with the Commission is resolved.

G. Public Communication. Participant agrees to cooperate with Xcel Energy in maintaining good community relations. Xcel Energy will issue all public statements, press releases, and similar publicity concerning the EVSE and the Work (including its progress, completion and characteristics). Participant shall not make or assist anyone to

make any such statements, releases, photographs, or publicity without prior written approval of Xcel Energy.

H. Non-waiver. Xcel Energy's failure to insist on performance of any of the terms and conditions herein or to exercise any right or privilege or Xcel Energy's waiver of any breach hereunder shall not thereafter waive any of Xcel Energy's rights or privileges under this Agreement or at law. Any waiver of any specific breach shall be effective only if given expressly by Xcel Energy in writing.

I. Merger. This Agreement embodies the entire agreement between Xcel Energy and Participant. The Parties shall not be bound by or liable for any statement, writing, representation, promise, inducement or understanding not set forth above. No changes, modifications or amendments of any terms and conditions of this Agreement are valid or binding unless agreed to by the Parties in writing and signed by their authorized agents.

J. Privacy Law. Participant further acknowledges and agrees that Participant is knowingly consenting to and authorizing: i) Xcel Energy to release and share Customer's name, address, telephone number, charging data and any charging or electrical usage patterns concerning the Work with Xcel Energy's authorized third party independent contractors, in order for the authorized third party independent contractors to provide the EVSE to Participant; and ii) Xcel Energy's authorized third party independent contractors to retain all of the aforementioned Customer data (following any transfer of EVSE ownership from Xcel Energy to Customer) for all EVSE warranty and maintenance support obligations only.

K. Survival. The following sections shall survive the expiration or termination of this Agreement: Section 6 (Title To Equipment And Data); Section 7 (Insurance Coverage); Section 8 (Indemnification); Section 9 (Warranty); Section 10 (Limits of Liability); Section 11 (a) (Compliance With Laws) and Section 11 (j) (privacy Law).

12. Questions

If you have questions regarding these Program terms, please call 1-800-895-4999.

Redline

Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PROPOSED

TABLE OF CONTENTS

Section No. 1
~~7th~~8th Revised Sheet No. 1

(Continued on Sheet No. 1-2)

Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2

PROPOSED

RATE SCHEDULES Section No. 5
TABLE OF CONTENTS ~~9th~~10th Revised Sheet No. TOC-1

(Continued on Sheet No. TOC-2)

Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2

PROPOSED

RATE SCHEDULES
TABLE OF CONTENTS (Continued)

Section No. 5
~~14th~~15th Revised Sheet No. TOC-2

T

T

Northern States Power Company , a Minnesota corporation
~~and wholly owned subsidiary of Xcel Energy Inc.~~
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PROPOSED

RESIDENTIAL ~~TIME OF DAY SERVICE - UNDERGROUND~~ELECTRIC VEHICLE PILOT SERVICE ~~(Continued)~~
RATE CODE A~~04~~80, A81

Section No. 5
~~2nd~~3rd Revised Sheet No. 7

~~CANCELED~~AVAILABILITY
Available while this Pilot Service is in effect to Residential Service customers for service only to electric vehicle loads including battery charging and accessory usage. Bundled service includes Company installed and provided charging equipment. Pre-Pay Option service is available to customers electing to pay Company for the installed cost of charging equipment prior to beginning service with this tariff. Customers electing Pre-Pay Option service are separately invoiced at the time of installation. The customer must complete Company-approved documentation verifying possession, through ownership or lease, of an electric vehicle as defined in Section 169.011, subdivision 26a of Minnesota law.

CONTRACT
Customers must contract for this service through an Electric Vehicle Pilot Electric Service Agreement with the Company. The initial contract period will normally be for 24 months.

CHARACTER OF SERVICE
Single-phase 60-Hertz service at approximately 120 or 120/240 volts will be provided hereunder. Three-phase service or other service upgrade requests will be provided in accordance with Company service regulations.

RENEWABLE ENERGY SUPPLY OPTION
Customers have the option to elect all or a portion of the supply of electricity under this schedule from renewable energy resources.

DETERMINATION OF CUSTOMER BILLS
Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and /or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

RATE

Customer Charge per Month	
Bundled (A80)	$27.45
Pre-Pay Option (A81)	$13.88
On-Peak Period Energy Charge per kWh	
June - September	$0.21096
Other Months	$0.16968
Off-Peak Period Energy Charge per kWh	$0.04260

PRE-PAY OPTION
The Pre-Pay Option Customer Charge per Month applies in place of the Bundled Customer Charge per Month to customers that have paid the installed cost of charging equipment to the Company.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

N

N

(Continued on Sheet No. 5-8)

Northern States Power Company, a Minnesota corporation
~~and wholly owned subsidiary of Xcel Energy Inc.~~
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PROPOSED

RESIDENTIAL ELECTRIC VEHICLE PILOT SERVICE~~TIME OF DAY SERVICE - UNDERGROUND~~ (Continued)
RATE CODE A~~04~~80, A81

Section No. 5
~~2nd~~3rd Revised Sheet No. 8

~~CANCELED~~FUEL CLAUSE
Bills are subject to the adjustments provided for in the Fuel Clause Rider.

RESOURCE ADJUSTMENT
Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Fund Rider, the Transmission Cost Recovery Rider, the Renewable Energy Standard Rider and the Mercury Cost Recovery Rider.

MONTHLY MINIMUM CHARGE
Customer Charge.

SURCHARGE
In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

LATE PAYMENT CHARGE
Any unpaid balance over $10.00 is subject to a 1.5% late payment charge or $1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

DEFINITION OF PEAK PERIODS
The on-peak period is defined as those hours between 9:00 a.m. and 9:00 p.m. Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off-peak period is defined as all other hours. Definition of on-peak and off-peak period is subject to change with change in Company's system operating characteristics.

COMMUNICATION COSTS
The Company will maintain separate accounting of the information, education, advertising and promotion costs associated with electric vehicles as provided in Minn. Stat. §216B.1614, subd.2, paragraph (c) 2 by deferring the costs to a tracker account, and will petition the Minnesota Public Utilities Commission to recover the qualifying costs.

TERMS AND CONDITIONS OF SERVICE
1. Residential Electric Vehicle Pilot Service shall be served through wiring connected to customer's single meter provided for Residential Service. Consumption under this rate schedule will be subtracted from the main meter for purposes of billing customer's non-Electric Vehicle electricity usage.
2. The customer shall supply, at no expense to the Company, premises wiring and a suitable location for connection of charging and associated equipment.
3. Company may require customer to provide access for Company-owned equipment for the recording and wireless communication of energy usage.
4. The rate contemplates that this service will utilize existing facilities with no additional major expenditures. Customer shall reimburse Company for any expenditure for facilities necessary to serve this load which would not otherwise be required to serve customer's load.
5. This schedule is also subject to provisions contained in Rules for Application of Residential Rates.
6. Customer must execute an Electric Vehicle Pilot Service Agreement with the Company.

N
N

Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PROPOSED

RULES FOR APPLICATION OF RESIDENTIAL RATES

Section No. 5
~~5th~~6th Revised Sheet No. 13

1. The Residential Service and Residential Time of Day Service are the only rates available to residential customers for domestic purposes in a single private residence. Energy Controlled Service (Non-Demand Metered), Limited Off Peak Service, Residential Electric Vehicle Service, Residential Electric Vehicle Pilot Service and Automatic Protective Lighting Service rate schedules are also available to qualifying residential customers. N N

2. Normal service under the Residential Service and Residential Time of Day Service rate schedules is single phase service rendered through one meter. Three phase service or service through more than one meter will be provided upon a one-time payment of an amount to reimburse Company for the additional investment. If customer is served through more than one meter, each meter will be separately billed.

3. Electric space heating charges are applicable only when customer's electric space heating equipment is used as customer's primary heating source.

4. Underground service charges will apply where the underground facilities are owned by Company, and Company has not been fully reimbursed for the added cost of such underground facilities.

5. Standby and Supplementary Service is available for any residential customer subject to the provisions in the General Rules and Regulations, Section 2.4. The Company's meter will be ratcheted to measure the flow of power and energy from Company to customer only.

6. A customer using electric service for domestic and non-domestic purposes jointly may combine such use through one meter on such rates as are available to general service customers.

7. The Residential Service and Residential Time of Day Service rate schedules are available to farm installations which were served on the separate Farm Service rate schedule prior to its cancellation on November 1, 1988. Residential Service and Residential Time of Day Service to these qualifying farm customers is limited to 120/240 volts single phase service rendered through one meter. Motors and other equipment which interfere with service to neighboring customers and all transformer type welding machines larger than 25 kilovolt-amperes are not permitted as part of this service.

Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PROPOSED

FUEL CLAUSE RIDER (Continued)

Section No. 5
~~11th~~12th Revised Sheet No. 91.3

RATE SCHEDULES BY SERVICE CATEGORY

Residential
Residential (A00, A01, A03)
Residential TOD (A02, A04)
Energy Controlled (A05)
Limited Off-Peak (A06)
Residential Electric Vehicle (A08) ~~N~~
Residential Electric Vehicle Pilot (A80, A81) N

Commercial and Industrial Non-Demand
Energy Controlled (A05)
Limited Off Peak (A06)
Small General (A09, A10, A11, A13)
Small General TOD (A12, A16, A18, A22)
Small Municipal Pumping (A40)
Fire and Civil Defense Siren (A42)

Commercial and Industrial Demand – Non-TOD
General (A14)
Peak Controlled (A23)
Municipal Pumping (A41)

Commercial and Industrial Demand – TOD
General TOD (A15, A17, A19)
Peak Controlled TOD (A24)
Tier 1 Energy Controlled Rider (A27)
Real Time Pricing (A62, A63)
Light Rail Line (A29)

Outdoor Lighting
Automatic Protective (A07)
Street Lighting System (A30)
Street Lighting Energy (Closed) (A32)
Street Lighting Energy – Metered (A34)
Street Lighting - City of St. Paul (A37)

PROVISION OF FORECAST DATA

To assist commercial and industrial customers in budgeting and managing their energy costs, the Company will annually make available on October 1st a 24-month forecast of the fuel and purchased energy costs applicable to demand billed C&I customers under this Rider. The forecast period begins January 1st of the following year. This forecast will be provided only to customers who have signed a protective agreement with the Company. Quarterly forecasts of the fuel and purchased energy costs will also be available.

Northern States Power Company
Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

VOLUNTARY RENEWABLE*CONNECT PILOT PROGRAM RIDER (Continued)

Section No. 5
~~Original~~1st Revised Sheet No. 150

RATE ~~N~~

The R*C Price for the pilot phase R*C Resources of each R*C Service Type shall be as follows based on year of production, unless otherwise provided for in this tariff:

Month-To-Month R*C or Single Event R*C Service Type (2017) $0.03555 per kWh

5-Year and 10-Year R*C Service Type

Year	5-Year Contract ($/kWh)	10-Year Contract ($/kWh)
2017	$0.03243	$0.03193
2018	$0.03280	$0.03230
2019	$0.03317	$0.03267
2020	$0.03330	$0.03280
2021	$0.03345	$0.03295
2022	$0.03361	$0.03349
2023	$0.03429	$0.03404
2024	$0.03497	$0.03460
2025	$0.03569	$0.03519
2026	$0.03642	$0.03580

NEUTRALITY CHARGE

The R*C Price includes a neutrality charge to mitigate the impact of the R*C Pilot program on non-participating customers. The standard neutrality charge is $0.00472 per kWh in year 1. Customers receiving service under the Company's Business Incentive and Sustainability Rider, Competitive Response Rider, ~~or~~ Residential Electric Vehicle Service (Rate Code A08), or Residential Electric Vehicle Pilot Service (Rate Code A80, A81) shall not be subject to the neutrality charge portion of the R*C Price. N

TRACKER ACCOUNT

Due to the variability of renewable resources, the Renewable*Connect program tracker account may have an excess or shortage of supply in any given hour or month. The Company will balance Renewable*Connect program usage at the end of the program year in accordance with the expected resource blend. As a result, the program may require more or less of a share of the expected program allocation. Energy produced by the R*C Resources that is not associated with any R*C Service subscription and therefore not allocated to an R*C Customer will be sold to all customers at the delivered cost through the Fuel Clause Adjustment. The Company will maintain accounting of the monthly balance of total R*C Resources production, total program usage, total revenues collected under the program and the expenses associated with offering the R*C Service, including the renewable energy purchases, marketing and other costs for this program. The Company may petition the Commission annually to true up the marketing and administrative cost tracker balance and apply the resulting true-up factors to the Month-To-Month R*C Price. ~~N~~

(Continued on Sheet No. 5-151)

Clean

Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PROPOSED

TABLE OF CONTENTS

Section No. 1
8th Revised Sheet No. 1

(Continued on Sheet No. 1-2)

Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2

PROPOSED

RATE SCHEDULES Section No. 5
TABLE OF CONTENTS 10th Revised Sheet No. TOC-1

(Continued on Sheet No. TOC-2)

Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2

PROPOSED

RATE SCHEDULES
TABLE OF CONTENTS (Continued)

Section No. 5
15th Revised Sheet No. TOC-2

T

T

Northern States Power Company , a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PROPOSED

RESIDENTIAL ELECTRIC VEHICLE PILOT SERVICE
RATE CODE A80, A81

Section No. 5
3rd Revised Sheet No. 7

AVAILABILITY
Available while this Pilot Service is in effect to Residential Service customers for service only to electric vehicle loads including battery charging and accessory usage. Bundled service includes Company installed and provided charging equipment. Pre-Pay Option service is available to customers electing to pay Company for the installed cost of charging equipment prior to beginning service with this tariff. Customers electing Pre-Pay Option service are separately invoiced at the time of installation. The customer must complete Company-approved documentation verifying possession, through ownership or lease, of an electric vehicle as defined in Section 169.011, subdivision 26a of Minnesota law.

CONTRACT
Customers must contract for this service through an Electric Vehicle Pilot Electric Service Agreement with the Company. The initial contract period will normally be for 24 months.

CHARACTER OF SERVICE
Single-phase 60-Hertz service at approximately 120 or 120/240 volts will be provided hereunder. Three-phase service or other service upgrade requests will be provided in accordance with Company service regulations.

RENEWABLE ENERGY SUPPLY OPTION
Customers have the option to elect all or a portion of the supply of electricity under this schedule from renewable energy resources.

DETERMINATION OF CUSTOMER BILLS
Customer bills shall reflect energy charges (if applicable) based on customer's kWh usage, plus a customer charge (if applicable), plus demand charges (if applicable) based on customer's kW billing demand as defined below. Bills may be subject to a minimum charge based on the monthly customer charge and /or certain monthly or annual demand charges. Bills also include applicable riders, adjustments, surcharges, voltage discounts, and energy credits. Details regarding the specific charges applicable to this service are listed below.

RATE

Customer Charge per Month	
Bundled (A80)	$27.45
Pre-Pay Option (A81)	$13.88
On-Peak Period Energy Charge per kWh	
June - September	$0.21096
Other Months	$0.16968
Off-Peak Period Energy Charge per kWh	$0.04260

PRE-PAY OPTION
The Pre-Pay Option Customer Charge per Month applies in place of the Bundled Customer Charge per Month to customers that have paid the installed cost of charging equipment to the Company.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

N

N

(Continued on Sheet No. 5-8)

Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PROPOSED

RESIDENTIAL ELECTRIC VEHICLE PILOT SERVICE
(Continued)
RATE CODE A80, A81

Section No. 5
3rd Revised Sheet No. 8

FUEL CLAUSE
Bills are subject to the adjustments provided for in the Fuel Clause Rider. N

RESOURCE ADJUSTMENT
Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Fund Rider, the Transmission Cost Recovery Rider, the Renewable Energy Standard Rider and the Mercury Cost Recovery Rider.

MONTHLY MINIMUM CHARGE
Customer Charge.

SURCHARGE
In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

LATE PAYMENT CHARGE
Any unpaid balance over $10.00 is subject to a 1.5% late payment charge or $1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

DEFINITION OF PEAK PERIODS
The on-peak period is defined as those hours between 9:00 a.m. and 9:00 p.m. Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday. The off-peak period is defined as all other hours. Definition of on-peak and off-peak period is subject to change with change in Company's system operating characteristics.

COMMUNICATION COSTS
The Company will maintain separate accounting of the information, education, advertising and promotion costs associated with electric vehicles as provided in Minn. Stat. §216B.1614, subd.2, paragraph (c) 2 by deferring the costs to a tracker account, and will petition the Minnesota Public Utilities Commission to recover the qualifying costs.

TERMS AND CONDITIONS OF SERVICE
1. Residential Electric Vehicle Pilot Service shall be served through wiring connected to customer's single meter provided for Residential Service. Consumption under this rate schedule will be subtracted from the main meter for purposes of billing customer's non-Electric Vehicle electricity usage.
2. The customer shall supply, at no expense to the Company, premises wiring and a suitable location for connection of charging and associated equipment.
3. Company may require customer to provide access for Company-owned equipment for the recording and wireless communication of energy usage.
4. The rate contemplates that this service will utilize existing facilities with no additional major expenditures. Customer shall reimburse Company for any expenditure for facilities necessary to serve this load which would not otherwise be required to serve customer's load.
5. This schedule is also subject to provisions contained in Rules for Application of Residential Rates.
6. Customer must execute an Electric Vehicle Pilot Service Agreement with the Company. N

Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PROPOSED

RULES FOR APPLICATION OF RESIDENTIAL RATES

Section No. 5
6th Revised Sheet No. 13

1. The Residential Service and Residential Time of Day Service are the only rates available to residential customers for domestic purposes in a single private residence. Energy Controlled Service (Non-Demand Metered), Limited Off Peak Service, Residential Electric Vehicle Service, Residential Electric Vehicle Pilot Service and Automatic Protective Lighting Service rate schedules are also available to qualifying residential customers. N N

2. Normal service under the Residential Service and Residential Time of Day Service rate schedules is single phase service rendered through one meter. Three phase service or service through more than one meter will be provided upon a one-time payment of an amount to reimburse Company for the additional investment. If customer is served through more than one meter, each meter will be separately billed.

3. Electric space heating charges are applicable only when customer's electric space heating equipment is used as customer's primary heating source.

4. Underground service charges will apply where the underground facilities are owned by Company, and Company has not been fully reimbursed for the added cost of such underground facilities.

5. Standby and Supplementary Service is available for any residential customer subject to the provisions in the General Rules and Regulations, Section 2.4. The Company's meter will be ratcheted to measure the flow of power and energy from Company to customer only.

6. A customer using electric service for domestic and non-domestic purposes jointly may combine such use through one meter on such rates as are available to general service customers.

7. The Residential Service and Residential Time of Day Service rate schedules are available to farm installations which were served on the separate Farm Service rate schedule prior to its cancellation on November 1, 1988. Residential Service and Residential Time of Day Service to these qualifying farm customers is limited to 120/240 volts single phase service rendered through one meter. Motors and other equipment which interfere with service to neighboring customers and all transformer type welding machines larger than 25 kilovolt-amperes are not permitted as part of this service.

Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PROPOSED

FUEL CLAUSE RIDER (Continued)

Section No. 5
12th Revised Sheet No. 91.3

RATE SCHEDULES BY SERVICE CATEGORY

Residential
Residential (A00, A01, A03)
Residential TOD (A02, A04)
Energy Controlled (A05)
Limited Off-Peak (A06)
Residential Electric Vehicle (A08)
Residential Electric Vehicle Pilot (A80, A81) N

Commercial and Industrial Non-Demand
Energy Controlled (A05)
Limited Off Peak (A06)
Small General (A09, A10, A11, A13)
Small General TOD (A12, A16, A18, A22)
Small Municipal Pumping (A40)
Fire and Civil Defense Siren (A42)

Commercial and Industrial Demand – Non-TOD
General (A14)
Peak Controlled (A23)
Municipal Pumping (A41)

Commercial and Industrial Demand – TOD
General TOD (A15, A17, A19)
Peak Controlled TOD (A24)
Tier 1 Energy Controlled Rider (A27)
Real Time Pricing (A62, A63)
Light Rail Line (A29)

Outdoor Lighting
Automatic Protective (A07)
Street Lighting System (A30)
Street Lighting Energy (Closed) (A32)
Street Lighting Energy – Metered (A34)
Street Lighting - City of St. Paul (A37)

PROVISION OF FORECAST DATA

To assist commercial and industrial customers in budgeting and managing their energy costs, the Company will annually make available on October 1st a 24-month forecast of the fuel and purchased energy costs applicable to demand billed C&I customers under this Rider. The forecast period begins January 1st of the following year. This forecast will be provided only to customers who have signed a protective agreement with the Company. Quarterly forecasts of the fuel and purchased energy costs will also be available.

Northern States Power Company
Northern States Power Company, a Minnesota corporation
Minneapolis, Minnesota 55401
MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

VOLUNTARY RENEWABLE*CONNECT PILOT PROGRAM RIDER (Continued)

Section No. 5
1st Revised Sheet No. 150

RATE
The R*C Price for the pilot phase R*C Resources of each R*C Service Type shall be as follows based on year of production, unless otherwise provided for in this tariff:

Month-To-Month R*C or Single Event R*C Service Type (2017) $0.03555 per kWh

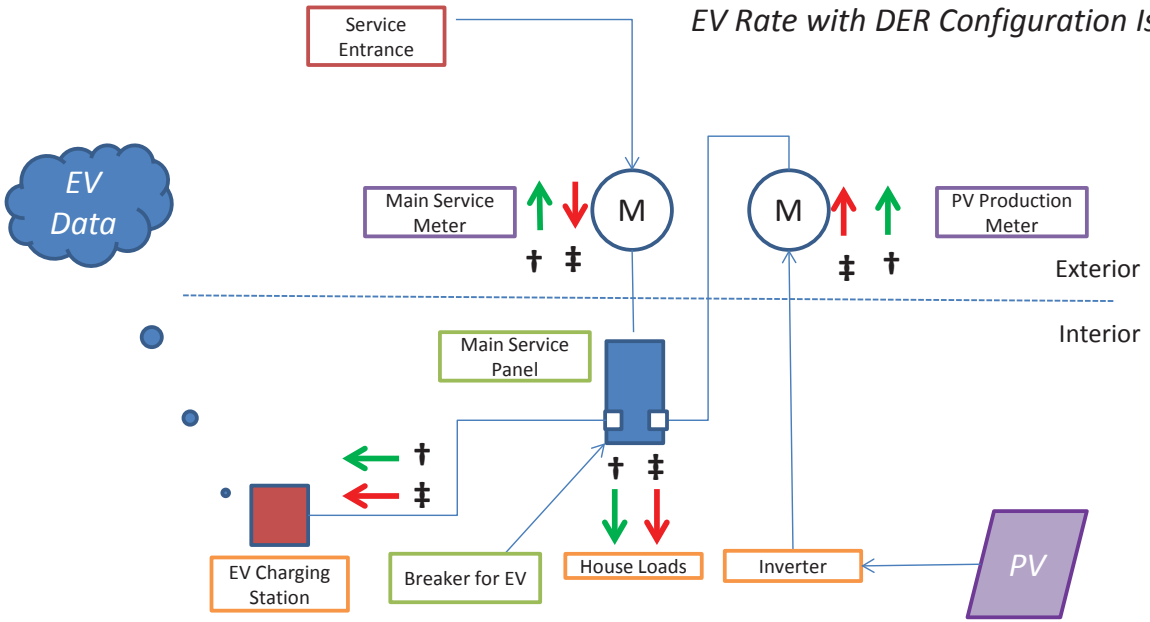
5-Year and 10-Year R*C Service Type

Year	5-Year Contract ($/kWh)	10-Year Contract ($/kWh)
2017	$0.03243	$0.03193
2018	$0.03280	$0.03230
2019	$0.03317	$0.03267
2020	$0.03330	$0.03280
2021	$0.03345	$0.03295
2022	$0.03361	$0.03349
2023	$0.03429	$0.03404
2024	$0.03497	$0.03460
2025	$0.03569	$0.03519
2026	$0.03642	$0.03580

NEUTRALITY CHARGE
The R*C Price includes a neutrality charge to mitigate the impact of the R*C Pilot program on non-participating customers. The standard neutrality charge is $0.00472 per kWh in year 1. Customers receiving service under the Company's Business Incentive and Sustainability Rider, Competitive Response Rider, Residential Electric Vehicle Service (Rate Code A08), or Residential Electric Vehicle Pilot Service (Rate Code A80, A81) shall not be subject to the neutrality charge portion of the R*C Price. N

TRACKER ACCOUNT
Due to the variability of renewable resources, the Renewable*Connect program tracker account may have an excess or shortage of supply in any given hour or month. The Company will balance Renewable*Connect program usage at the end of the program year in accordance with the expected resource blend. As a result, the program may require more or less of a share of the expected program allocation. Energy produced by the R*C Resources that is not associated with any R*C Service subscription and therefore not allocated to an R*C Customer will be sold to all customers at the delivered cost through the Fuel Clause Adjustment. The Company will maintain accounting of the monthly balance of total R*C Resources production, total program usage, total revenues collected under the program and the expenses associated with offering the R*C Service, including the renewable energy purchases, marketing and other costs for this program. The Company may petition the Commission annually to true up the marketing and administrative cost tracker balance and apply the resulting true-up factors to the Month-To-Month R*C Price.

(Continued on Sheet No. 5-151)



† *PV generating higher than total load*

‡ *PV generating lower than total load*

**When the PV installation is generating power regardless of how much load it is feeding, there will be a billing discrepancy. The EV charger will not differentiate this supply from power supplied by the grid versus what is being supplied by the customer's generation. When the energy per time period data is measured later, a larger proportion of the actual house loads will be seen as EV since the solar isn't accounted for versus what the house loads are supplying.*

CERTIFICATE OF SERVICE

I, Carl Cronin, hereby certify that I have this day served copies or summaries of the foregoing document on the attached list(s) of persons.

xx by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States Mail at Minneapolis, Minnesota

or

xx electronic filing

DOCKET NOS. E002/M-15-111 AND
XCEL ENERGY'S MISCELLANEOUS ELECTRIC SERVICE LIST

Dated this 17th day of November 2017

/s/
_____
Carl Cronin
Regulatory Administrator

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	OFF_SL_15-111_Official
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	No	OFF_SL_15-111_Official
Alison C	Archer	aarcher@misoenergy.org	MISO	2985 Ames Crossing Rd Eagan, MN 55121	Electronic Service	No	OFF_SL_15-111_Official
James J.	Bertrand	james.bertrand@stinson.com	Stinson Leonard Street LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-111_Official
Carl	Cronin	Regulatory.records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_15-111_Official
Leigh	Currie	lcurrie@mncenter.org	Minnesota Center for Environmental Advocacy	26 E. Exchange St., Suite 206 St. Paul, Minnesota 55101	Electronic Service	No	OFF_SL_15-111_Official
Ian	Dobson	Residential.Utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	No	OFF_SL_15-111_Official
John	Farrell	jfarrell@ilsr.org	Institute for Local Self-Reliance	1313 5th St SE #303 Minneapolis, MN 55414	Electronic Service	No	OFF_SL_15-111_Official
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_15-111_Official
Kimberly	Hellwig	kimberly.hellwig@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-111_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Michael	Hoppe	il23@mtn.org	Local Union 23, I.B.E.W.	932 Payne Avenue St. Paul, MN 55130	Electronic Service	No	OFF_SL_15-111_Official
Alan	Jenkins	aj@jenkinsatlaw.com	Jenkins at Law	2265 Roswell Road Suite 100 Marietta, GA 30062	Electronic Service	No	OFF_SL_15-111_Official
Richard	Johnson	Rick.Johnson@lawmoss.com	Moss & Barnett	150 S. 5th Street Suite 1200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-111_Official
Mark J.	Kaufman	mkaufman@ibewlocal949.org	IBEW Local Union 949	12908 Nicollet Avenue South Burnsville, MN 55337	Electronic Service	No	OFF_SL_15-111_Official
Thomas	Koehler	TGK@IBEW160.org	Local Union #160, IBEW	2909 Anthony Ln St Anthony Village, MN 55418-3238	Electronic Service	No	OFF_SL_15-111_Official
Michael	Krikava	mkrikava@briggs.com	Briggs And Morgan, P.A.	2200 IDS Center 80 S 8th St Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-111_Official
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_15-111_Official
Ryan	Long	ryan.j.long@xcelenergy.com	Xcel Energy	414 Nicollet Mall 401 8th Floor Minneapolis, MN 55401	Electronic Service	No	OFF_SL_15-111_Official
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Electronic Service	No	OFF_SL_15-111_Official
Kevin	Miller	kevin.miller@chargepoint.com	ChargePoint, Inc.	254 E. Hacienda Avenue Campbell, California 95008	Electronic Service	No	OFF_SL_15-111_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Andrew	Moratzka	andrew.moratzka@stoel.com	Stoel Rives LLP	33 South Sixth St Ste 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-111_Official
David	Niles	david.niles@avantenergy.com	Minnesota Municipal Power Agency	220 South Sixth Street Suite 1300 Minneapolis, Minnesota 55402	Electronic Service	No	OFF_SL_15-111_Official
Michael	Noble	noble@fresh-energy.org	Fresh Energy	Hamm Bldg., Suite 220 408 St. Peter Street St. Paul, MN 55102	Electronic Service	No	OFF_SL_15-111_Official
Richard	Savelkoul	rsavelkoul@martinsquires.com	Martin & Squires, P.A.	332 Minnesota Street Ste W2750 St. Paul, MN 55101	Electronic Service	No	OFF_SL_15-111_Official
Anne	Smart	anne.smart@chargepoint.com	ChargePoint, Inc.	254 E Hacienda Ave Campbell, CA 95008	Electronic Service	No	OFF_SL_15-111_Official
Ken	Smith	ken.smith@districtenergy.com	District Energy St. Paul Inc.	76 W Kellogg Blvd St. Paul, MN 55102	Electronic Service	No	OFF_SL_15-111_Official
Byron E.	Starns	byron.starns@stinson.com	Stinson Leonard Street LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-111_Official
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Street Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-111_Official
Eric	Swanson	eswanson@winthrop.com	Winthrop & Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_15-111_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Andrew	Twite	twite@fresh-energy.org	Fresh Energy	408 St. Peter Street, Ste. 220 St. Paul, MN 55102	Electronic Service	No	OFF_SL_15-111_Official
Lisa	Veith	lisa.veith@ci.stpaul.mn.us	City of St. Paul	400 City Hall and Courthouse 15 West Kellogg Blvd. St. Paul, MN 55102	Electronic Service	No	OFF_SL_15-111_Official
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	No	OFF_SL_15-111_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Aafedt	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Suite 3500, 225 South Sixth Street Minneapolis, MN 554024629	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Alison C	Archer	aarcher@misoenergy.org	MISO	2985 Ames Crossing Rd Eagan, MN 55121	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Ryan	Barlow	Ryan.Barlow@ag.state.mn.us	Office of the Attorney General-RUD	445 Minnesota Street Bremer Tower, Suite 1400 St. Paul, Minnesota 55101	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
James J.	Bertrand	james.bertrand@stinson.com	Stinson Leonard Street LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
William A.	Blazar	bblazar@mnchamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
James	Canaday	james.canaday@ag.state.mn.us	Office of the Attorney General-RUD	Suite 1400 445 Minnesota St. St. Paul, MN 55101	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Jeanne	Cochran	Jeanne.Cochran@state.mn.us	Office of Administrative Hearings	P.O. Box 64620 St. Paul, MN 55164-0620	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
John	Coffman	john@johncoffman.net	AARP	871 Tuxedo Blvd. St, Louis, MO 63119-2044	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Corey	Conover	corey.conover@minneapolismn.gov	Minneapolis City Attorney	350 S. Fifth Street City Hall, Room 210 Minneapolis, MN 554022453	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Carl	Cronin	Regulatory.records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Joseph	Dammel	joseph.dammel@ag.state.mn.us	Office of the Attorney General-RUD	Bremer Tower, Suite 1400 445 Minnesota Street St. Paul, MN 55101-2131	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Ian	Dobson	Residential.Utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
John	Farrell	jfarrell@ilsr.org	Institute for Local Self-Reliance	1313 5th St SE #303 Minneapolis, MN 55414	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Edward	Garvey	edward.garvey@AESLconsulting.com	AESL Consulting	32 Lawton St Saint Paul, MN 55102-2617	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Janet	Gonzalez	Janet.gonzalez@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 55101	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Kimberly	Hellwig	kimberly.hellwig@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Michael	Hoppe	il23@mtn.org	Local Union 23, I.B.E.W.	932 Payne Avenue St. Paul, MN 55130	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Julia	Jazynka	jjazynka@energyfreedomcoalition.com	Energy Freedom Coalition of America	101 Constitution Ave NW Ste 525 East Washington, DC 20001	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Alan	Jenkins	aj@jenkinsatlaw.com	Jenkins at Law	2265 Roswell Road Suite 100 Marietta, GA 30062	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Linda	Jensen	linda.s.jensen@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota Street St. Paul, MN 551012134	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Richard	Johnson	Rick.Johnson@lawmoss.com	Moss & Barnett	150 S. 5th Street Suite 1200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Sarah	Johnson Phillips	sjphillips@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Mark J.	Kaufman	mkaufman@ibewlocal949.org	IBEW Local Union 949	12908 Nicollet Avenue South Burnsville, MN 55337	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Thomas	Koehler	TGK@IBEW160.org	Local Union #160, IBEW	2909 Anthony Ln St Anthony Village, MN 55418-3238	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Michael	Krikava	mkrikava@briggs.com	Briggs And Morgan, P.A.	2200 IDS Center 80 S 8th St Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Peder	Larson	plarson@larkinhoffman.com	Larkin Hoffman Daly & Lindgren, Ltd.	8300 Norman Center Drive Suite 1000 Bloomington, MN 55437	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Paula	Maccabee	Pmaccabee@justchangelaw.com	Just Change Law Offices	1961 Selby Ave Saint Paul, MN 55104	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Peter	Madsen	peter.madsen@ag.state.mn.us	Office of the Attorney General-DOC	Bremer Tower, Suite 1800 445 Minnesota Street St. Paul, Minnesota 55101	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Kavita	Maini	kmaini@wi.rr.com	KM Energy Consulting LLC	961 N Lost Woods Rd Oconomowoc, WI 53066	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Joseph	Meyer	joseph.meyer@ag.state.mn.us	Office of the Attorney General-RUD	Bremer Tower, Suite 1400 445 Minnesota Street St Paul, MN 55101-2131	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Andrew	Moratzka	andrew.moratzka@stoel.com	Stoel Rives LLP	33 South Sixth St Ste 4200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
David	Niles	david.niles@avantenergy.com	Minnesota Municipal Power Agency	220 South Sixth Street Suite 1300 Minneapolis, Minnesota 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Carol A.	Overland	overland@legalectric.org	Legalectric - Overland Law Office	1110 West Avenue Red Wing, MN 55066	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Jeff	Oxley	jeff.oxley@state.mn.us	Office of Administrative Hearings	600 North Robert Street St. Paul, MN 55101	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Kevin	Reuther	kreuther@mncenter.org	MN Center for Environmental Advocacy	26 E Exchange St, Ste 206 St. Paul, MN 551011667	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Richard	Savelkoul	rsavelkoul@martinsquires.com	Martin & Squires, P.A.	332 Minnesota Street Ste W2750 St. Paul, MN 55101	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Inga	Schuchard	ischuchard@larkinhoffman.com	Larkin Hoffman	8300 Norman Center Drive Suite 1000 Minneapolis, MN 55437	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Zeviel	Simpser	zsimpser@briggs.com	Briggs and Morgan PA	2200 IDS Center80 South Eighth Street Minneapolis, MN 554022157	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Ken	Smith	ken.smith@districtenergy.com	District Energy St. Paul Inc.	76 W Kellogg Blvd St. Paul, MN 55102	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Byron E.	Starns	byron.starns@stinson.com	Stinson Leonard Street LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Street Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Eric	Swanson	eswanson@winthrop.com	Winthrop & Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Lisa	Veith	lisa.veith@ci.stpaul.mn.us	City of St. Paul	400 City Hall and Courthouse 15 West Kellogg Blvd. St. Paul, MN 55102	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Joseph	Windler	jwindler@winthrop.com	Winthrop & Weinstine	225 South Sixth Street, Suite 3500 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Cam	Winton	cwinton@mnchamber.com	Minnesota Chamber of Commerce	400 Robert Street North Suite 1500 St. Paul, Minnesota 55101	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Patrick	Zomer	Patrick.Zomer@lawmoss.com	Moss & Barnett a Professional Association	150 S. 5th Street, #1200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric