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**DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA**

IN THE MATTER OF NorthWestern Energy's) REGULATORY DIVISION
Application for an Advanced Metering)
Opt-Out Tariff) DOCKET NO. 2022.06.____
)

**NORTHWESTERN ENERGY'S APPLICATION FOR APPROVAL
OF AN ADVANCED METERING OPT-OUT TARIFF**

NorthWestern Energy ("NorthWestern") respectfully submits this Application for Approval of an Advanced Metering Opt-Out Tariff ("Application") to the Montana Public Service Commission ("Commission"). NorthWestern's approach is reasonable and practical; reflects the Commission's rule, Administrative Rule of Montana ("ARM") 38.5.2603, and the governing statute, Mont. Code. Ann. § 69-4-1001, *et seq.*; and strikes a balance between the need of NorthWestern to update its infrastructure while offering customers who choose not to participate with a choice.

I. Contact Information.

NorthWestern's full name and post office address are:

NorthWestern Corporation d/b/a NorthWestern Energy
11 East Park Street
Butte, Montana 59701

NorthWestern's employee responsible for answering questions concerning this

Application is:

Cynthia Fang
Director of Regulatory Affairs
208 N. Montana Ave, Suite 200
Helena, MT 59601
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NorthWestern's attorney in this matter is:

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NorthWestern requests that all electronic correspondence related to this filing also be sent to Tracy Killoy at tracy.killoy@northwestern.com.

II. Background.

The 2019 Montana Legislature passed and the Governor signed into law House Bill ("HB") 267. HB 267, which is codified in Title 69, Chapter 4, Part 10, provides that the Commission "shall determine whether an opt-out program for advanced metering devices should be established" and it "shall consider: (a) an individual customer's privacy interest; (b) costs and practicality of allowing customers to opt out; (c) availability of other technology; and (d) other concerns related to advanced metering devices." *See* Mont. Code Ann. § 69-4-1004(1) (2019). The Commission decided to establish an opt-out program for advanced metering

devices after opening a docket and soliciting comments from interested persons in Docket No. 2019.12.108.

After collecting comments regarding the parameters of the law governing opt-out for advanced metering devices, the Commission, however, worked in collaboration with the Legislature to revise the statute. The Montana Legislature introduced and passed House Bill (“HB”) 606, which was ultimately signed into law by the Governor on May 14, 2021. The Commission subsequently adopted ARM 38.5.2603, incorporating the provisions of HB 606.

ARM 38.5.2603 provides, in part, as follows:

(4) Any utility whose deployment of advanced metering devices commenced prior to the effective date of this rule must submit a schedule and a proposed tariff within 180 days of the effective date of this rule. No utility may begin deploying advanced metering devices after the effective date of this rule without a commission-approved schedule and tariff for opt-out service.

(5) When applying for approval of an opt-out service tariff, the utility shall address circumstances unique to the utility in its tariff application, including what fees, if any, should be charged to recover costs, such as the cost of removing an existing advanced meter and the subsequent installation of an alternative meter, or costs associated with providing meter reading and billing services associated with the use of an alternative meter. Every initial or revised tariff submitted pursuant to this rule must describe all alternative meters available to customers and provide a reasonable estimate of costs associated with each alternative meter.

NorthWestern implemented its Montana Meter Upgrade Project (“Project”) in 2021. Since ARM 38.5.2603 took effect after implementation began, NorthWestern hereby submits its proposed opt-out program and tariff for approval in compliance with the Commission’s rule. *See* ARM 38.5.2603(4).

NorthWestern submits for the Commission's consideration factual support for approval of an advanced metering opt-out tariff through the Prefiled Direct Testimonies of John P. Thurmond, Director of Digital Customer Experience Success, Cynthia (Cyndee) S. Fang, Director of Regulatory Affairs, and Matthew J. Holden, Metering Project Manager. The testimony and exhibits discuss the substance of the program, the proposed fees, and NorthWestern's communication plan with customers.

III. NorthWestern's Opt-Out Program Balances Utility Needs with Customer Choice.

Customers have been requesting more robust services from NorthWestern, including outage communication and more granular energy usage data. To meet customer needs, NorthWestern sought to enhance its metering capabilities, which coincided with asset life concerns with the existing metering. Mr. Thurmond's testimony briefly discusses these needs. NorthWestern notes that the details about and the need for NorthWestern's advanced meters will be part of the upcoming rate review filed later this summer, and the focus of this docket is appropriately limited to the proposed opt-out program details and related costs.

Simultaneously with NorthWestern's implementation of the Project, it also instituted a voluntary bypass program in April 2021 when the Commission expressed a concern about customers not having a choice about whether to accept an advanced meter while the regulatory process progressed. Although under no legal obligation at the time to allow customers to avoid an advanced meter, NorthWestern did not hesitate to implement the voluntary bypass program. As

discussed in more detail in Mr. Holden's testimony, as of May 31, 2022, 1,025 customers have taken advantage of the voluntary bypass program. That represents approximately 0.64% of all advanced meters installed.

As required by Montana law, NorthWestern notifies customers at least 60 days in advance of the scheduled installation of an advanced meter on their property. NorthWestern follows the 60-day notice with a postcard approximately two weeks before installation. Mr. Holden's testimony discusses NorthWestern's communication efforts in more detail and articulates how NorthWestern will communicate with customers who have elected to be bypassed if the opt-out tariff is approved.

In the ongoing Project, NorthWestern currently installs meters with a secure two-way communication solution that is read by a fixed wireless network providing timely and on-demand data. These meters do not communicate with customers' electrical appliances, equipment, or devices. These meters do not estimate or record electrical energy usage by types of electrical appliances, equipment, or devices. For customers who wish to opt out from the secure two-way communication meters, NorthWestern will install a new non-communicating meter, which meter does not use radio waves or the internet to communicate with NorthWestern. This meter complies with the Commission's desire for an alternative meter as articulated in ARM 38.5.2603(6). Mr. Thurmond's testimony provides additional details about these non-communicating meters.

NorthWestern's proposed opt-out tariffs, which are proposed to be incorporated into NorthWestern's existing Rule No. 9 for both electric and natural gas services, are attached to Mr. Thurmond's testimony. The key provisions of NorthWestern's out-out program include:

- The ability of a customer to opt out of the advanced meter being installed by NorthWestern for an upfront fee of \$75 per service.¹
- Customers who opt out may choose to have NorthWestern read their non-communicating meter for \$15 per month or self-read the meter for \$5 per month.
- Various acts of misconduct or failure to act in a timely manner will disqualify customers from the self-read option or the opt-out program altogether.

As reflected in Mr. Thurmond's testimony, NorthWestern will incur material costs to install a non-communicating electric meter or modify the natural gas meter module and manage the meter reads of each opt-out customer. The fees proposed by NorthWestern in this docket do not fully capture the actual costs, but do reflect the industry standard rates for opt-out services. The remainder of the costs for installation of non-communicating meters will be captured in NorthWestern's rates in future dockets. Ms. Fang provides testimony supporting

¹ Electric and natural gas meter service must be performed by separate employees per union rules and technical knowledge. Multiple meters for the same service type, i.e., electric or natural gas, will incur a lower upfront fee for the additional meters to reflect the single visit to the premise. For example, if a customer has an electric meter at her home and in her barn, NorthWestern proposes the customer pay the initial fee of \$75 for the first electric meter and \$30 for the installation of the second electric meter.

the reasonableness of NorthWestern's proposed fees in comparison to industry standards and ratemaking principles.

IV. Conclusion.

NorthWestern respectfully requests that the Commission approve its opt-out tariff. The opt-out program proposed by NorthWestern allows customers to decline to accept an advanced meter for a reasonable fee that recovers most of the actual costs incurred by NorthWestern. The program reflects industry standards and strikes the appropriate balance sought by the statute and regulation.

Respectfully submitted this 9th day of June 2022.

NORTHWESTERN ENERGY

By: /s/ Shannon M. Heim
Shannon M. Heim
Attorney for NorthWestern Energy

CERTIFICATE OF SERVICE

I hereby certify that NorthWestern Energy's Application for Approval of an Advanced Metering Opt-Out Tariff in Docket No. 2022.06 ___ has been e-filed with the Montana Public Service Commission and emailed to the email list below.

Date: June 9, 2022

/s/ Tracy Lowney Killoy
Tracy Lowney Killoy
Administrative Assistant

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PREFILED DIRECT TESTIMONY
OF JOHN P. THURMOND
ON BEHALF OF NORTHWESTERN ENERGY

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1 **Witness Information**

2 **Q. Please provide your name, employer, and title.**

3 **A.** My name is John P. Thurmond. I am NorthWestern Energy's
4 ("NorthWestern") Director of Digital Customer Experience Success.
5

6 **Q. Please provide a description of your relevant employment
7 experience and other professional qualifications.**

8 **A.** For the last two years I have served as the Program Manager of the
9 Montana Meter Upgrade Project and the Program Manager for the South
10 Dakota Meter Upgrade Project. I also manage the Advanced Metering
11 Infrastructure ("AMI") Operations team that oversees the AMI system (the
12 communications network) for Montana and South Dakota. My specific
13 involvement includes approving contractual commitments, reviewing
14 monthly budgets and forecasts, escalating project- and application-related
15 issues, and providing project updates and approvals from our Executives
16 and AMI Steering Committee.

17
18 In addition to the aforementioned responsibilities, I support our Genesys
19 Contact Center platform, lead project teams on future outage
20 communications and AMI customer benefits, and I am a chairperson for
21 UUAS (Utilities United Against Scams) to help lead efforts to minimize
22 customer scams in the utility sector.

1 I have a Bachelor’s degree in Applied Computer Science from the
2 Montana College of Mineral Science and Technology and have been
3 involved in utility technology for 30 years.
4

5 **Purpose and Summary of Testimony**

6 **Q. What is the purpose of your testimony in this docket?**

7 **A.** My testimony provides a high-level overview of the Montana Meter
8 Upgrade Project, NorthWestern’s proposed Opt-Out Program, and the
9 costs associated with the Opt-Out Program.
10

11 **Q. Please summarize your testimony.**

12 **A.** With nearing end-of-asset-life issues for its current Automated Meter
13 Reading (“AMR”) equipment, NorthWestern accepted the unique
14 opportunity to re-envision its metering infrastructure to enhance the
15 customer experience and to lay the foundation for the evolving digital
16 transformation of the energy sector. My testimony discusses the
17 estimated costs, customer options, and eligibility for NorthWestern’s AMI
18 Opt-Out Program.
19

20 **Overview of the Montana Meter Upgrade Project**

21 **Q. Please describe the origin of NorthWestern’s Montana Meter**
22 **Upgrade Project.**

1 **A.** More than half of the AMR meters and Encoder Receiver Transmitters
2 (“ERTs”)¹ deployed in NorthWestern’s Montana service territory are
3 already at, over, or soon approaching the end of their designed service
4 life. This means that a significant portion of NorthWestern’s AMR
5 metering infrastructure needs to be replaced in the near future.

6
7 NorthWestern customers have also been requesting more robust service
8 from us, including, but not limited to, outage communication and granular
9 energy usage data. For NorthWestern to continue meeting its customers’
10 expectations, a new platform needs to be implemented and that begins
11 with metering capabilities.

12

13 **Q. Please provide an overview of NorthWestern’s Montana Meter**
14 **Upgrade Project.**

15 **A.** A more robust discussion of NorthWestern’s Montana Meter Upgrade
16 Project will be contained in the Prefiled Direct Testimony of Jonathan
17 Shafer in NorthWestern’s upcoming rate review. As NorthWestern
18 improves its system, it is crucial that it continues to invest in technologies
19 that enhance the customer experience. AMI technology, for example,
20 provides many immediate and future opportunities to improve the

¹ Encoder Receiver Transmitters communicate meter data over a short-range radio frequency so that a utility vehicle can collect data without entering the customers’ premises.

1 customer experience. In the near term, AMI enables NorthWestern to: (1)
2 detect and communicate to customers timely information regarding
3 outages, (2) achieve more accurate estimated reads and more consistent
4 meter reads, and (3) perform remote services, such as turning on power
5 for new or relocating customers outside core business hours, remote
6 meter reading for electric services even after hours, and remotely
7 investigating metering issues such as voltage problems.

8
9 Apart from these more immediate improvements to the customer
10 experience, AMI technology also enables NorthWestern to support the
11 evolving expectations of its customers through many other future offerings
12 and services including flexible rate structures, meter pre-pay, bill
13 forecasting, and much more.

14

15 **Q. Please describe the phases of the Montana Meter Upgrade Project.**

16 **A.** Phase I is limited to electric meters and natural gas endpoints covered
17 under the radio frequency mesh communications network. Phase I
18 includes all our Montana service territories except those areas that have
19 remote electric meters as described below and our natural gas only areas.
20 Phase I of the project was scheduled to be completed in the latter part of
21 2023, but due to supply constraints the completion date has been moved
22 to the third quarter of 2024. Phase II of the project addresses remote
23 electric meters using PLC (Power Line Carrier). Phase III addresses our

1 NorthWestern implemented a voluntary bypass program when the
2 legislative effort began. That program allows customers not wanting an
3 advanced meter to choose not to have their existing meter swapped out
4 with an advanced meter during this interim period when a formal opt-out
5 program was being developed for Commission approval. NorthWestern
6 knew it would have to return and have informed conversations with these
7 customers to provide them with options and associated costs for opting
8 out once the Commission ruled on NorthWestern's proposal in this docket.
9 The Prefiled Direct Testimony Matthew J. Holden ("Holden Direct
10 Testimony") describes the voluntary bypass program in more detail and
11 the transition from voluntary bypass to opt-out once approved.

12
13 Following the Commission's adoption of regulations, NorthWestern
14 developed its Opt-Out Program to adhere to the Commission rules.
15 NorthWestern also determined estimated costs associated with customers
16 exercising their right to opt out. The regulation requires NorthWestern to
17 provide non-communicating meters, which means those meters must be
18 read manually so NorthWestern drafted its Opt-Out Program to provide
19 customers the choice of performing self reads of their meters or having
20 NorthWestern read their meters. As discussed later in my testimony and
21 in the Prefiled Direct Testimony of Cynthia S. Fang ("Fang Direct
22 Testimony"), NorthWestern's tariff proposes charges for each of the
23 options consistent with industry practice.

1 **Q. How many customers are currently participating in NorthWestern’s**
2 **voluntary bypass program?**

3 **A.** As of May 31, 2022, 1,025 requests have been accepted for
4 NorthWestern’s voluntary bypass program. Based upon the number of
5 deployed endpoints, this equates to 0.64%. Voluntary bypass customers
6 will have the option of transitioning to one of the opt-out options or
7 accepting an advanced meter upon Commission approval of
8 NorthWestern’s tariff.

9

10 **NorthWestern’s AMI Opt-Out Program**

11 **Q. Please describe NorthWestern’s proposed Opt-Out Program.**

12 **A.** NorthWestern’s proposed Opt-Out Program is designed to provide options
13 to customers not wanting an advanced meter. Any customer choosing to
14 opt out of the metering project will receive a non-communicating digital
15 meter. All other customers will receive an AMI meter. The program
16 requires the customer to apply for it and pay the Opt-Out fees discussed in
17 the Fang Direct Testimony.

18

19 **Q. Can you please walk through NorthWestern’s proposed additions to**
20 **Rule 9 for electric meter opt out (Exhibit JPT-1)?**

21 **A.** NorthWestern inserted its Opt-Out Program into its existing electric tariff in
22 Rule 9. The redlined language is contained in Rule 9-13 to preserve

1 continuity of NorthWestern's metering terms of service. A clean version of
2 Rule 9 is attached to my testimony as Exhibit JPT-2.

3
4 Rule 9-13 first describes the process a customer must use to opt out of an
5 AMI meter. Each customer must complete an application, either online or
6 in hard copy. Through the application, a customer establishes their
7 eligibility to participate in the program, which NorthWestern will validate.
8 Documented instances, within the past 24 months, of known attempted or
9 unauthorized use, theft, or fraud will render a customer ineligible to
10 participate. Customers with instances of documented threats of violence
11 toward or actual harm to Utility employees or its agents will likewise be
12 ineligible.

13
14 All NorthWestern customers will receive a new meter. Customers who opt
15 out of an AMI meter will receive a non-communicating meter as required
16 by the Commission's rules. NorthWestern proposes an initial fee of \$75
17 per service to opt out. Customers with multiple meters of the same
18 service type (for example, electric) will be charged \$75 for the first meter
19 and \$30 for subsequent meters.

20

21 **Q. Who is eligible to opt out of an AMI meter?**

22 **A.** The request to opt out needs to be authorized by the property owner. If
23 the requestor or property owner (if different) have a documented instance

1 of known attempted or unauthorized use, theft, or fraud related to
2 NorthWestern equipment or service within the most recent 24 months, or
3 any documented instances of threats of violence toward or actual harm to
4 NorthWestern employees or its agents, they are not eligible to opt out of
5 an AMI meter. To participate in the Opt-Out Program, the meter and
6 residence must be on the same joined property (excluding apartments,
7 condos, and similar multi-unit dwellings). The residence is also required
8 to purchase electricity pursuant to a residential rate with less than or equal
9 to 320 amps service.

10

11 **Q. How does a customer opt out?**

12 **A.** Customers who wish to participate in the Opt-Out Program will find a
13 detailed discussion of the program, including eligibility, enrollment
14 process, terms and conditions, and the application form (“Advanced Meter
15 Opt-Out Application”) on NorthWestern’s website. The proposed
16 application is discussed in the Holden Direct Testimony and provided as
17 his Exhibit MJH-4.

18

19 **Q. If a customer opts out of an AMI meter, what meter will they receive?**

20 **A.** All NorthWestern customers will receive a new meter since the existing
21 AMR meters are at the end of their useful life. Customers who elect to opt
22 out will receive a non-communicating digital meter.

23

1 **Q. What options will opt-out customers have to read their meters?**

2 **A.** Customers who choose to opt out will have two options to read their
3 meters on a monthly basis: utility-read meters or customer-read meters.
4 The customer can choose to have NorthWestern read their meter on a
5 monthly basis, which will be done manually by a utility employee visiting
6 the premise. Or the customer could alternatively choose to read the meter
7 themselves and report the recorded usage to NorthWestern through the
8 MyEnergy portal on NorthWestern's website or call NorthWestern with the
9 necessary information.

10

11 **Q. Please describe the utility read option.**

12 **A.** On a monthly basis, NorthWestern will create a read request to have a
13 qualified employee or contractor visit the customer's premise to perform a
14 read of the meter(s). Since the customer will have a non-communicating
15 digital meter, NorthWestern will need to access the meter(s) on the
16 customer's property. The customer is required to have an unobstructed
17 path leading up to the meter(s). If NorthWestern is unable to obtain an
18 actual read due to obstructions, resource constraints, or weather (for
19 example), the customer will receive an estimated bill statement.
20 NorthWestern does not provide advance notification when accessing a
21 customer's property to perform meter reads. The NorthWestern employee
22 or contractor will record the meter read and submit the information
23 electronically to our facilities. Upon receipt of the submitted read data, an

1 administrative employee will then manually process the read request into
2 our CIS (Customer Information System) in order to produce a monthly bill
3 statement.

4

5 **Q. What happens if a customer chooses the utility read option, but**
6 **denies NorthWestern access to its meter?**

7 **A.** NorthWestern must have unobstructed access to a customer's premise
8 and meter to perform the meter read on a monthly basis. Rule 9 allows
9 NorthWestern to "refuse to provide service under the utility read option if
10 such service: a) creates a safety hazard to customers, the public, or
11 Utility's personnel or facilities; and/or b) Customer does not allow Utility's
12 employees or agents access to the meter at the Customer's premises for
13 maintenance, connection/disconnection, meter reading or any other utility
14 need." In the event that a customer becomes ineligible for the utility read
15 option, an AMI meter will be installed and the monthly charge will cease to
16 be applied.

17

18 **Q. Please describe the customer read option.**

19 **A.** NorthWestern will provide an annual read calendar for opt-out customers
20 via our website or we can send the calendar upon customer's request.

21 Customers can provide the necessary information two ways. First, they
22 can call NorthWestern to report their meter read(s). Customers will need
23 to provide their account number, name, contact phone number, and the

1 meter read(s). Opt-out customers can also choose to report their meter
2 read(s) online at <https://myaccount.northwesternenergy.com>. Customers
3 will need an online My Energy Account in order to access the online
4 option.

5
6 **Q. Are there limitations regarding a customer's ability to self read and
7 could a customer lose the right to self read their meter(s)?**

8 **A.** Yes, only customers with no documented instance of known unauthorized
9 use, theft, fraud, or threats within the prior 24 months may self read their
10 meters. There are also several ways a customer could lose the right to
11 self read their meter(s):

- 12 • If a customer does not report their meter read(s) within the established
13 three-day window of their billing cycle more than three times in a
14 calendar year; or
- 15 • If an annual audit performed by NorthWestern shows the customer-
16 reported usage to be off by more than 5% of the actual consumption
17 recorded by the meter(s).

18

19 **Q. If a customer can no longer self read their meter(s), what are their
20 options?**

21 **A.** If the customer loses the right to self read the meter(s), he or she would
22 have the option of having NorthWestern read their meter for the higher
23 monthly fee or he or she could choose to have an AMI meter installed. If

1 the customer violates the eligibility requirements for a utility-read meter
2 (threats against an employee, lack of access, etc.), the customer will have
3 to accept an AMI meter or terminate service with NorthWestern.

4

5 **Q. Can you please walk through NorthWestern’s proposed additions to**
6 **Rule 9 for natural gas meter opt out (Exhibit JPT-3)?** NorthWestern

7 **A.** proposes to add section 9.15 to its existing Natural Gas Rule 9. The
8 new proposed language is attached as Exhibit JPT-3. A clean version
9 of Natural Gas Rule 9 adopting these proposals is Exhibit JPT-4. The
10 proposed opt-out requirements for natural gas are the same as
11 discussed above for electric service. NorthWestern will submit a
12 compliance filing reflecting any changes ordered by the Commission
13 following the conclusion of this docket.

14

15 **NorthWestern’s Estimated Opt-Out Costs**

16 **Q. Please explain how NorthWestern calculated the cost it will incur to**
17 **establish an opt-out customer.**

18 **A.** First, I used our current AMI meter upgrade data to estimate how long it
19 would take to exchange an AMI or AMR meter for a non-communicating
20 meter. Then I multiplied that time by our loaded labor rate to estimate the
21 initial cost to NorthWestern. As demonstrated on Exhibit JPT-5, the initial
22 cost to NorthWestern is \$111.54 for an electric customer, which includes
23 the costs for a non-communicating digital meter and costs of its

1 installation. Using the same process, I determined that the initial cost to
2 NorthWestern is \$120.06 for a natural gas customer, which includes the
3 costs to remove the ERT (communication endpoint) from the meter.
4

5 **Q. How did NorthWestern determine the costs it will incur to read the**
6 **non-communicative digital meters or process a customer's self**
7 **reads?**

8 **A.** I used the fully loaded labor costs for the resources that process service
9 read requests based upon the average time spent processing these
10 requests. The details of these costs are reflected in Exhibit JPT-5. In
11 addition to the cost of processing the customer self reads, NorthWestern
12 used the fully loaded labor cost for the field resources that would perform
13 the monthly read of the meter.
14

15 To calculate the cost to read the meters, I compiled the time it would take
16 for NorthWestern to conduct a monthly meter read and then multiplied it
17 times our loaded labor rate for electric and natural gas employees to
18 estimate the cost. Some meters may take longer and some less time to
19 read depending on the location of the premise. NorthWestern estimates it
20 will cost \$68.90 per month to reach each electric meter, which includes
21 costs of a utility read and back office processing costs. The cost for
22 NorthWestern to read each natural gas meter is \$67.51. We believe that

1 those costs could be less if there are two or more meters on one premise
2 to read.

3

4 For a customer read meter, NorthWestern incurs administrative cost to
5 enter the data into the billing system. We must also do an annual audit
6 (more often if there is an indication of a problem) to confirm that the data
7 provided by the customer is accurate. As reflected in Exhibit JPT-5, I
8 calculated those administrative costs to be \$9.45 per month for electric
9 customers and \$9.33 per month for natural gas customers.

10

11 **Q. What is the proposed fee to opt out of an AMI meter(s)?**

12 **A.** NorthWestern proposes assessing a portion of the costs of opting out of
13 the AMI meter to those customers and spreading a portion of those costs
14 among the remainder of customers. NorthWestern proposes a one-time
15 fee of \$75 for an AMI meter to be replaced with a non-communicating
16 digital meter and \$75 for a gas AMI module replaced with a non-
17 communicating gas index. If there is more than one electric meter or gas
18 module needing to be replaced, NorthWestern proposes \$30 per each
19 additional meter replacement of the same service type. Based upon the
20 option selected by the customer, there would also be a monthly \$15 fee if
21 the utility is selected or required to read the meter or a monthly \$5 fee if
22 the customer is eligible and elects to read the meter themselves. Please

1 refer to the Fang Direct Testimony for a discussion of the fees and their
2 reasonableness.

3

4 **Q. Does this conclude your testimony?**

5 **A.** Yes, it does.

VERIFICATION

This Prefiled Direct Testimony of John P. Thurmond is true and accurate to the best of my knowledge, information, and belief.

/s/ John P. Thurmond
John P. Thurmond

ELECTRIC TARIFF



Canceling	1stOriginal <u>Original</u>	Revised Revised	Sheet No. Sheet No.	<u>R-9.1</u> <u>R-9.1</u>
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Rule No. 9

METERING

- 9-1 Meter Installation - The Utility shall furnish, set, and maintain the meter; and the Customer shall provide and maintain, free of expense to the Utility, an unobstructed location, satisfactory to the Utility, for placement of metering equipment including meter sockets, instrument transformers, conduit, etc. The Utility will provide and own metering transformers that are to be installed by the Customer in a manner satisfactory to the Utility. Metering transformer enclosures, boxes, and necessary conduit will be provided, installed, and owned by the Customer. All such equipment shall conform to Utility specifications and shall be installed in a manner that will provide for convenient operation, replacement of equipment, testing, and reading of the meter.
- 9-2 Customer's Responsibility - Customer shall exercise reasonable care in protecting the Utility's meter and other Utility-owned equipment located on Customer's premises. Only duly authorized employees or agents of the Utility, or persons authorized by law, are permitted to inspect or handle it.
- 9-3 Meter Installation and Removal - Meters shall be installed or removed only by duly authorized employees or agents of the Utility.
- 9-4 Meter Seals - All meters shall be sealed by the Utility. Law prohibits the breaking of seals by unauthorized persons, or tampering with the meter installation or wiring.
- 9-5 Schedule of Meter Tests- The utility shall test its meters in accordance with the following procedure:
- A. Self contained single-phase watt-hour meter used on continuous loads of 160 amps or less.
1. New Meters – The Company purchases meters with accuracy certified by the manufacturer to be in compliance with the American National Standard Code for Electricity Metering (ANSI C12.1). New meters will be visually inspected prior to installation at a customer facility and only be subject to testing should damage be detected.
 2. Meters In Service - All active meters will be assigned to a meter family type based on the vintage year, model type, and know manufacture changes. Each year, samples will be selected from each family type and tested at full and light load. The sample will include meters removed from service for cause (i.e. service upgrades, high bill complaint investigation, building demolition, inactive service etc.) within the previous twelve-month timeframe with the balance consisting of randomly selected in-service meters. The number of samples and the pass/fail status of the tested lot will be determined by the ANSI/ASQC Z1.9-1993 standard. The method used will be the variability unknown, single specification Form-2 standard deviation method, with and acceptable quality level

(continued)

ELECTRIC TARIFF



	1stOriginal	Revised	Sheet No.	<u>R-9.2</u>
Canceling	<u>Original</u>	Revised	Sheet No.	<u>R-9.2</u>

Rule No. 9

METERING

(AQL) of 10 % and an inspection level of II. Classification of the meter family under test will be determined under the following criteria:

- a) A meter family deemed satisfactory by the ANSI test standard will stay in service subject to continued yearly testing.
 - b) A meter family that fails the initial ANSI standard will remain in service if it passed the previous years testing however the family will be placed on a tightened inspection practice for the following year. In addition, the failed family will be analyzed and may be broken into sub-families to isolate specific make and model related problems.
 - c) All meters within the original family or refined sub-families will be recalibrated or replaced if the lot fails for two consecutive years. Corrective action will begin in the next budget cycle with completion occurring within a four-year timeframe.
- B. Polyphase watt-hour meters and single-phase watt-hour meters equipped with demand registers or using instrument transformers.
1. New Meters – All meters received from manufactures will be tested for accuracy and inspected for mechanical defects.
 2. Meters In Service – All active meters will be assigned to a meter family type based on the vintage year, model type, and know manufacture changes. Each year, samples will be selected from each family type and tested at full and light load. The sample will include meters removed from service for cause (i.e. service upgrades, high bill complaint investigation, building demolition, inactive service etc.) within the previous twelve-month timeframe with the balance consisting of randomly selected in-service meters. The number of samples and the pass/fail status of the tested lot will be determined by the ANSI/ASQC Z1.9-1993 standard. The method used will be the variability unknown, single specification Form-2 standard deviation method, with and acceptable quality level (AQL) of 10 % and an inspection level of II. Classification of the meter family under test will be determined under the following criteria:
 - a) A meter family deemed satisfactory by the ANSI test standard will stay in service subject to continued yearly testing.
 - b) A meter family that fails the initial ANSI standard will remain in service if it passed the previous years testing however the family will be placed on a tightened inspection practice for the following year. In addition, the failed family will be analyzed and may be broken into sub-families to isolate specific make and model related problems.

(continued)

ELECTRIC TARIFF



	<u>1stOriginal</u>	Revised	Sheet No.	<u>R-9.3</u>
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Rule No. 9

METERING

- c) All meters within the original family or refined sub-families will be recalibrated or replaced if the lot fails for two consecutive years. Corrective action will begin in the next budget cycle with completion occurring within a four-year timeframe.
- 9-6 Special Meter Tests - At the request of the Customer, the Utility shall, within ten days after receipt of such request, make special meter tests. Customer shall bear the cost of such tests, including meter removal and replacement, if the meter is found to be within the limits of acceptable accuracy as defined below in Rule No. 9-8. In all other cases, the Utility shall bear the cost of the test.
- 9-7 Replacement of Meter - Whenever a Customer requests the replacement of the service meter on Customer's premises, such request shall be treated as a request for a test of such meter and, as such, shall fall under the provisions of preceding Rule No. 9-6.
- 9-8 Standard of Meter Accuracy - The Utility shall not place in service or knowingly allow to remain in service, without adjustment, any meter that has a known error in registration of more than plus or minus two percent (2%) at light load or at full load and, in both cases, unity power factor; or more than plus or minus three percent (3%) at full load and fifty percent (50%) power factor.
- 9-9 Adjustment for Inaccurate Meter Registration - Whenever a tested meter in service is found to be fast or slow beyond the limit of accepted accuracy as defined in preceding Rule No. 9-8, the Utility shall make an adjustment based on the corrected registration for the period in which the meter was registering incorrectly, if such period is known; but for a period not to exceed six months where an undercharge has occurred. The six-month limitation does not apply in those instances where the adjustment is the result of an overcharge. In those instances, where the period of adjustment can be determined with a reasonable degree of accuracy, Customer shall be refunded all overcharges that occurred over the entire period of the incorrect meter registration. Whenever any bill or bills have been adjusted or corrected, as provided above, and whenever such adjustment amounts to \$1 or more, the Utility shall refund to Customer, or credit to Customer's account, any amount found to have been collected in excess of the proper amount; or the Utility may, within the limitations set forth above, require Customer to pay, or add to Customer's account, additional amounts due. In no event shall the period of adjustment, for either undercharges or overcharges, exceed the duration of the present Customer's occupancy. Where actual recorded data identifying errors of this nature are not available, it may be difficult, if not impossible, to determine the amount of such errors with any great degree of precision. In such instances, both the amount of meter error and the period of time over which the meter was registering incorrectly may be determined by engineering estimate.

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ELECTRIC TARIFF



	<u>1stOriginal</u>	Revised	Sheet No.	<u>R-9.4</u>
Canceling	<u>Original</u>	Revised	Sheet No.	<u>R-9.4</u>

Rule No. 9

METERING

- 9-10 Incorrect Meter Installation - In the event a Customer has been overcharged or undercharged as a result of an incorrect meter installation, the amount of the overcharge shall be adjusted and refunded to the Customer, or credited to Customer's account, if in excess of \$1. The amount of any undercharge may be adjusted and billed to Customer, provided that in no event shall such period of adjustment exceed the length of time the service has been supplied to Customer through the incorrect metering installation at the present location, or six months, whichever is less. The six-month limitation does not apply in those instances where the adjustment is the result of an overcharge. In such instances, the present Customer shall be refunded all overcharges that occurred during the Customer's occupancy.
- 9-11 Non Registering Meter - Where a meter has failed to register for any period, for reasons beyond reasonable control of the Utility, the Utility may estimate the charge for service during such period. Such estimate to be based upon the best available data, provided that the period for such estimated charges shall not exceed six months, and in no event for a period longer than the present Customer's occupancy.
- 9-12 Bypassing or Tampering with Metering Facilities - Customers shall not interfere in any way with the metering facilities after they have been set in place. In cases where the meter seal is broken or the working parts of the meter have been tampered with or the meter damaged or there is evidence that a bypass has been used, the Utility may render a bill for the current billing period based upon the estimated use, considering past experience under similar conditions and may, in addition thereto, charge for the actual cost of repairing or replacing said meter and connections. Service may be discontinued or refused at the premises where such bypassing or tampering has occurred until all such charges are paid; provided, however, that during the winter moratorium on termination of service (Rule No. 13-10), service shall be reconnected after the interfered with installation has been repaired; and the Utility shall continue to provide service until Commission approval of termination is obtained.
- 9-13 AMI Opt-Out Provision - Through an opt-out application, a qualifying Customer, who pays the residential rate set forth in Schedule No. ESS-1, can opt out of an advanced meter infrastructure ("AMI") meter. The application for Utility's Opt-Out provision is available on Utility's website or Customer can request it be sent by mail. Customer must submit a complete application to be considered for this AMI Opt-Out provision. To be eligible to opt out, the Customer shall have no documented instances, within the past 24 months, of known attempted or unauthorized use, theft, or fraud. Further, Customer shall have zero instances of documented threats of violence toward or actual harm to Utility employees or its agents. Any Customer who opts out under this provision is ineligible to: (1) be served under a time-based rate, if available; (2) participate in net-metering; or (3) participate in any other future services or offerings that use an advanced meter.

ELECTRIC TARIFF



	<u>Original</u>	Revised	Sheet No.	<u>R-9.5</u>
Canceling		Revised	Sheet No.	<u>R-9.5</u>

Rule No. 9

METERING

The opted-out service is required to have a meter and residence on the same joined property (excluding apartments, condos, and similar multi-unit dwellings). The residence is also required to be on a residential rate with less than or equal to 320 amps service.

If a Customer opts out, Utility will install a non-communicative digital meter on the Customer's premise. Utility shall charge the opt-out Customer a one-time charge of seventy-five dollars and zero cents (\$75.00). If a Customer has more than one electric meter installed at Customer's premise, Customer shall pay thirty dollars and zero cents (\$30.00) for each additional electric meter that is changed to a non-communicative digital meter. Customers with meters manually read by the Utility will be charged a monthly opt-out charge of fifteen dollars and zero cents (\$15.00) per premise. Utility may refuse to provide service under the utility read option if such service: a) creates a safety hazard to customers, the public, or Utility's personnel or facilities; and/or b) Customer does not allow Utility's employees or agents access to the meter at the Customer's premises for maintenance, connection/disconnection, meter reading or any other utility need. If Customer is removed from or subsequently chooses an AMI meter, the monthly charge will cease to be applied once an AMI meter is installed.

Customer may self-read opted-out meters as long as Customer meets the criteria set forth in this provision. Customers with meters that are self-read will be charged a monthly opt-out charge of five dollars and zero cents (\$5.00) per premise. If a self-read Customer fails to provide a timely monthly reading on the scheduled read date (or within three (3) days prior) as reflected on their billing statement, Utility will estimate Customer's usage for that month. If Customer's reported usage deviates greater than 5% from the amount recorded during an audit, Customer will be removed from the self-read program and default to the Utility-read meter going forward, with the corresponding monthly charges. If Customer fails to provide a timely self-read three times in a twelve-month period, the Customer will be removed from the self-read program and will incur the Utility-read monthly meter fee or will be given the option to have an AMI meter installed at no cost.

ELECTRIC TARIFF



	<u>1st</u>	Revised	Sheet No.	<u>R-9.1</u>
Canceling	Original	Revised	Sheet No.	<u>R-9.1</u>

Rule No. 9

METERING

- 9-1 Meter Installation - The Utility shall furnish, set, and maintain the meter; and the Customer shall provide and maintain, free of expense to the Utility, an unobstructed location, satisfactory to the Utility, for placement of metering equipment including meter sockets, instrument transformers, conduit, etc. The Utility will provide and own metering transformers that are to be installed by the Customer in a manner satisfactory to the Utility. Metering transformer enclosures, boxes, and necessary conduit will be provided, installed, and owned by the Customer. All such equipment shall conform to Utility specifications and shall be installed in a manner that will provide for convenient operation, replacement of equipment, testing, and reading of the meter.
- 9-2 Customer's Responsibility - Customer shall exercise reasonable care in protecting the Utility's meter and other Utility-owned equipment located on Customer's premises. Only duly authorized employees or agents of the Utility, or persons authorized by law, are permitted to inspect or handle it.
- 9-3 Meter Installation and Removal - Meters shall be installed or removed only by duly authorized employees or agents of the Utility.
- 9-4 Meter Seals - All meters shall be sealed by the Utility. Law prohibits the breaking of seals by unauthorized persons, or tampering with the meter installation or wiring.
- 9-5 Schedule of Meter Tests- The utility shall test its meters in accordance with the following procedure:
- A. Self contained single-phase watt-hour meter used on continuous loads of 160 amps or less.
1. New Meters – The Company purchases meters with accuracy certified by the manufacturer to be in compliance with the American National Standard Code for Electricity Metering (ANSI C12.1). New meters will be visually inspected prior to installation at a customer facility and only be subject to testing should damage be detected.
 2. Meters In Service - All active meters will be assigned to a meter family type based on the vintage year, model type, and know manufacture changes. Each year, samples will be selected from each family type and tested at full and light load. The sample will include meters removed from service for cause (i.e. service upgrades, high bill complaint investigation, building demolition, inactive service etc.) within the previous twelve-month timeframe with the balance consisting of randomly selected in-service meters. The number of samples and the pass/fail status of the tested lot will be determined by the ANSI/ASQC Z1.9-1993 standard. The method used will be the variability unknown, single specification Form-2 standard deviation method, with and acceptable quality level

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ELECTRIC TARIFF

	<u>1st</u>	Revised	Sheet No.	<u>R-9.2</u>
Canceling	Original	Revised	Sheet No.	<u>R-9.2</u>

Rule No. 9

METERING

(AQL) of 10 % and an inspection level of II. Classification of the meter family under test will be determined under the following criteria:

- a) A meter family deemed satisfactory by the ANSI test standard will stay in service subject to continued yearly testing.
 - b) A meter family that fails the initial ANSI standard will remain in service if it passed the previous years testing however the family will be placed on a tightened inspection practice for the following year. In addition, the failed family will be analyzed and may be broken into sub-families to isolate specific make and model related problems.
 - c) All meters within the original family or refined sub-families will be recalibrated or replaced if the lot fails for two consecutive years. Corrective action will begin in the next budget cycle with completion occurring within a four-year timeframe.
- B. Polyphase watt-hour meters and single-phase watt-hour meters equipped with demand registers or using instrument transformers.
1. New Meters – All meters received from manufactures will be tested for accuracy and inspected for mechanical defects.
 2. Meters In Service – All active meters will be assigned to a meter family type based on the vintage year, model type, and know manufacture changes. Each year, samples will be selected from each family type and tested at full and light load. The sample will include meters removed from service for cause (i.e. service upgrades, high bill complaint investigation, building demolition, inactive service etc.) within the previous twelve-month timeframe with the balance consisting of randomly selected in-service meters. The number of samples and the pass/fail status of the tested lot will be determined by the ANSI/ASQC Z1.9-1993 standard. The method used will be the variability unknown, single specification Form-2 standard deviation method, with and acceptable quality level (AQL) of 10 % and an inspection level of II. Classification of the meter family under test will be determined under the following criteria:
 - a) A meter family deemed satisfactory by the ANSI test standard will stay in service subject to continued yearly testing.
 - b) A meter family that fails the initial ANSI standard will remain in service if it passed the previous years testing however the family will be placed on a tightened inspection practice for the following year. In addition, the failed family will be analyzed and may be broken into sub-families to isolate specific make and model related problems.

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ELECTRIC TARIFF



	<u>1st</u>	Revised	Sheet No.	<u>R-9.3</u>
Canceling	Original	Revised	Sheet No.	<u>R-9.3</u>

Rule No. 9

METERING

- c) All meters within the original family or refined sub-families will be recalibrated or replaced if the lot fails for two consecutive years. Corrective action will begin in the next budget cycle with completion occurring within a four-year timeframe.
- 9-6 Special Meter Tests - At the request of the Customer, the Utility shall, within ten days after receipt of such request, make special meter tests. Customer shall bear the cost of such tests, including meter removal and replacement, if the meter is found to be within the limits of acceptable accuracy as defined below in Rule No. 9-8. In all other cases, the Utility shall bear the cost of the test.
- 9-7 Replacement of Meter - Whenever a Customer requests the replacement of the service meter on Customer's premises, such request shall be treated as a request for a test of such meter and, as such, shall fall under the provisions of preceding Rule No. 9-6.
- 9-8 Standard of Meter Accuracy - The Utility shall not place in service or knowingly allow to remain in service, without adjustment, any meter that has a known error in registration of more than plus or minus two percent (2%) at light load or at full load and, in both cases, unity power factor; or more than plus or minus three percent (3%) at full load and fifty percent (50%) power factor.
- 9-9 Adjustment for Inaccurate Meter Registration - Whenever a tested meter in service is found to be fast or slow beyond the limit of accepted accuracy as defined in preceding Rule No. 9-8, the Utility shall make an adjustment based on the corrected registration for the period in which the meter was registering incorrectly, if such period is known; but for a period not to exceed six months where an undercharge has occurred. The six-month limitation does not apply in those instances where the adjustment is the result of an overcharge. In those instances, where the period of adjustment can be determined with a reasonable degree of accuracy, Customer shall be refunded all overcharges that occurred over the entire period of the incorrect meter registration. Whenever any bill or bills have been adjusted or corrected, as provided above, and whenever such adjustment amounts to \$1 or more, the Utility shall refund to Customer, or credit to Customer's account, any amount found to have been collected in excess of the proper amount; or the Utility may, within the limitations set forth above, require Customer to pay, or add to Customer's account, additional amounts due. In no event shall the period of adjustment, for either undercharges or overcharges, exceed the duration of the present Customer's occupancy. Where actual recorded data identifying errors of this nature are not available, it may be difficult, if not impossible, to determine the amount of such errors with any great degree of precision. In such instances, both the amount of meter error and the period of time over which the meter was registering incorrectly may be determined by engineering estimate.

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ELECTRIC TARIFF



	<u>1st</u>	Revised	Sheet No.	<u>R-9.4</u>
Canceling	Original	Revised	Sheet No.	<u>R-9.4</u>

Rule No. 9

METERING

- 9-10 Incorrect Meter Installation - In the event a Customer has been overcharged or undercharged as a result of an incorrect meter installation, the amount of the overcharge shall be adjusted and refunded to the Customer, or credited to Customer's account, if in excess of \$1. The amount of any undercharge may be adjusted and billed to Customer, provided that in no event shall such period of adjustment exceed the length of time the service has been supplied to Customer through the incorrect metering installation at the present location, or six months, whichever is less. The six-month limitation does not apply in those instances where the adjustment is the result of an overcharge. In such instances, the present Customer shall be refunded all overcharges that occurred during the Customer's occupancy.
- 9-11 Non Registering Meter - Where a meter has failed to register for any period, for reasons beyond reasonable control of the Utility, the Utility may estimate the charge for service during such period. Such estimate to be based upon the best available data, provided that the period for such estimated charges shall not exceed six months, and in no event for a period longer than the present Customer's occupancy.
- 9-12 Bypassing or Tampering with Metering Facilities - Customers shall not interfere in any way with the metering facilities after they have been set in place. In cases where the meter seal is broken or the working parts of the meter have been tampered with or the meter damaged or there is evidence that a bypass has been used, the Utility may render a bill for the current billing period based upon the estimated use, considering past experience under similar conditions and may, in addition thereto, charge for the actual cost of repairing or replacing said meter and connections. Service may be discontinued or refused at the premises where such bypassing or tampering has occurred until all such charges are paid; provided, however, that during the winter moratorium on termination of service (Rule No. 13-10), service shall be reconnected after the interfered with installation has been repaired; and the Utility shall continue to provide service until Commission approval of termination is obtained.
- 9-13 AMI Opt-Out Provision - Through an opt-out application, a qualifying Customer, who pays the residential rate set forth in Schedule No. ESS-1, can opt out of an advanced meter infrastructure ("AMI") meter. The application for Utility's Opt-Out provision is available on Utility's website or Customer can request it be sent by mail. Customer must submit a complete application to be considered for this AMI Opt-Out provision. To be eligible to opt out, the Customer shall have no documented instances, within the past 24 months, of known attempted or unauthorized use, theft, or fraud. Further, Customer shall have zero instances of documented threats of violence toward or actual harm to Utility employees or its agents. Any Customer who opts out under this provision is ineligible to: (1) be served under a time-based rate, if available; (2) participate in net metering; or (3) participate in any other future services or offerings that use an advanced meter.
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ELECTRIC TARIFF



	<u>Original</u>	Revised	Sheet No.	<u>R-9.5</u>
Canceling		Revised	Sheet No.	<u>R-9.5</u>

Rule No. 9

METERING

The opted-out service is required to have a meter and residence on the same joined property (excluding apartments, condos, and similar multi-unit dwellings). The residence is also required to be on a residential rate with less than or equal to 320 amps service.

If a Customer opts out, Utility will install a non-communicative digital meter on the Customer's premise. Utility shall charge the opt-out Customer a one-time charge of seventy-five dollars and zero cents (\$75.00). If a Customer has more than one electric meter installed at Customer's premise, Customer shall pay thirty dollars and zero cents (\$30.00) for each additional electric meter that is changed to a non-communicative digital meter. Customers with meters manually read by the Utility will be charged a monthly opt-out charge of fifteen dollars and zero cents (\$15.00) per premise. Utility may refuse to provide service under the utility read option if such service: a) creates a safety hazard to customers, the public, or Utility's personnel or facilities; and/or b) Customer does not allow Utility's employees or agents access to the meter at the Customer's premises for maintenance, connection/disconnection, meter reading or any other utility need. If Customer is removed from or subsequently chooses an AMI meter, the monthly charge will cease to be applied once an AMI meter is installed.

Customer may self-read opted-out meters as long as Customer meets the criteria set forth in this provision. Customers with meters that are self-read will be charged a monthly opt-out charge of five dollars and zero cents (\$5.00) per premise. If a self-read Customer fails to provide a timely monthly reading on the scheduled read date (or within three (3) days prior) as reflected on their billing statement, Utility will estimate Customer's usage for that month. If Customer's reported usage deviates greater than 5% from the amount recorded during an audit, Customer will be removed from the self-read program and default to the Utility-read meter going forward, with the corresponding monthly charges. If Customer fails to provide a timely self-read three times in a twelve-month period, the Customer will be removed from the self-read program and will incur the Utility-read monthly meter fee or will be given the option to have an AMI meter installed at no cost.

NATURAL GAS TARIFF



Canceling	1stOriginal	Revised	Sheet No.	<u>R-9.1</u>
	<u>Original</u>	Revised	Sheet No.	<u>R-9.1</u>

Rule No. 9

METERING

- 9-1 Meter and Regulator Installation - The Utility shall furnish, set, and maintain the meter and regulator; and the Customer shall provide and maintain, free of expense to the Utility, an unobstructed location, satisfactory to the Utility, for installation thereof as well as proper facilities, conforming to the Utility's service standards, for convenient installation, removal, and disconnection of the meter and regulator and for reading of the meter.
- 9-2 Customer's Responsibility - Customer shall exercise reasonable care in protecting the Utility's meter and other Utility-owned equipment located on Customer's premises. Only duly authorized employees or agents of the Utility, or persons authorized by law, are permitted to inspect or handle it.
- 9-3 Meter and Regulator Installation and Removal - Meters and regulators shall be installed or removed only by duly authorized employees or agents of the Utility.
- 9-4 Meter and Regulator Seals - All meters and regulators shall be sealed by the Utility. Law prohibits the breaking of seals by unauthorized persons, or tampering with meters or regulators.
- 9-5 Schedule of Meter Tests - The Utility shall test its meters in accordance with the following procedure:

New Meters – The Company purchases meters with accuracy certified by the manufacture to hold calibration for a period of not less than ten years. New meters will be visually inspected prior to installation at a customer facility and only be subject to testing should damage be detected.

Meters In Service –

1) All active meters not specifically classified in section 2 as Large Meter type, will be assigned to a meter family type based on the vintage year, model type, and know manufacture changes. Each year, samples will be selected from each family type and tested at twenty and eighty percent of full load. The sample will include meters removed from service for cause (i.e. service upgrades, high bill complaint investigation, building demolition, inactive service etc.) within the previous twelve-month timeframe with the balance consisting of randomly selected in-service meters. The number of samples and the pass/fail status of the tested lot will be determined by the ANSI/ASQC Z1.9-1993 standard. The method used will be the variability unknown, single specification Form-2 standard deviation method, with and acceptable quality level (AQL) of 10 % and an inspection level of II. Classification of the meter family under test will be determined under the following criteria:

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NATURAL GAS TARIFF



Canceling	1stOriginal	Revised	Sheet No.	<u>R-9.2</u>
	<u>Original</u>	Revised	Sheet No.	<u>R-9.2</u>

Rule No. 9

METERING

- a) Meters ten years old or newer fall within the manufactures guaranteed calibration period and will not be subject to testing.
 - b) A meter family deemed satisfactory by the ANSI test standard will stay in service subject to continued yearly testing.
 - c) A meter family that fails the initial ANSI standard will remain in service if it passed the previous years testing however the family will be placed on a tightened inspection practice for the following year. In addition, the failed family will be analyzed and may be broken into sub-families to isolate specific make and model related problems.
 - d) All meters within the original family or refined sub-families will be recalibrated or replaced if the lot fails for two consecutive years. Corrective action will begin in the next budget cycle with completion occurring within a four-year timeframe.
- 2) Large Meters – A percentage of large commercial and industrial meters will be subject to test each year until 100% of the meters are tested within an established timeframe. Meters falling outside of the standard of meter accuracy as defined in section 9-8 will be recalibrated, repaired or replaced during the test cycle. The meter class and the corresponding test cycle in years is indicated below:

Large Meter Test Cycles

<u>Class</u>	<u>Models</u>	<u>Testing Schedule in Years</u>
2	35B, 80B, AL800, AL1000	15 years
3	250B, AL1400, AL2300, 500B, AL500	5 years
4	800 – 11000 ROTARY	5 years
5	16000 – 38000 ROTARY	3 years

9-6 Special Meter Tests - At the request of the Customer, the Utility shall, within ten days after receipt of such request, make special meter tests. Customer shall bear the cost of such tests, including meter removal and replacement, if the meter is found to be within the limits of acceptable accuracy as defined below in Rule No. 9-8. In all other cases, the Utility shall bear the cost of the test.

9-7 Replacement of Meter - Whenever a Customer requests the replacement of the meter on Customer's premises, such request shall be treated as a request for a test of such meter and, as such, shall fall under the provisions of preceding Rule No. 9-6.

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NATURAL GAS TARIFF



Canceling	1stOriginal	Revised	Sheet No.	<u>R-9.3</u>
	Original	Revised	Sheet No.	<u>R-9.3</u>

Rule No. 9

METERING

- 9-8 Standard of Meter Accuracy - The Utility shall not place in service or knowingly allow to remain in service, without adjustment, any meter that has a known error in registration of more than plus or minus two percent (2%) when passing gas at twenty percent (20%) of rated meter capacity with 0.5 inch water column differential.
- 9-9 Adjustment for Inaccurate Meter Registration - Whenever a tested meter in service is found to be fast or slow beyond the limit of accepted accuracy as defined in preceding Rule No. 9-8, the Utility shall make an adjustment based on the corrected registration for the period in which the meter was registering incorrectly, if such period is known; but for a period not to exceed six months where an undercharge has occurred. The six-month limitation does not apply in those instances where the adjustment is the result of an overcharge. In those instances, where the period of adjustment can be determined with a reasonable degree of accuracy, Customer shall be refunded all overcharges that occurred over the entire period of the incorrect meter registration. Whenever any bill or bills have been adjusted or corrected, as provided above, and whenever such adjustment amounts to \$1 or more, the Utility shall refund to Customer, or credit to Customer's account, any amount found to have been collected in excess of the proper amount; or the Utility may, within the limitations set forth above, require Customer to pay, or add to Customer's account, additional amounts due. In no event shall the period of adjustment, for either undercharges or overcharges, exceed the duration of the present Customer's occupancy. Where actual recorded data identifying errors of this nature are not available, it may be difficult, if not impossible, to determine the amount of such errors with any great degree of precision. In such instances, both the amount of meter error and the period of time over which the meter was registering incorrectly may be determined by engineering estimate.
- 9-10 Incorrect Meter Installation - In the event a Customer has been overcharged or undercharged as a result of an incorrect meter installation, the amount of the overcharge shall be adjusted and refunded to the Customer, or credited to Customer's account, if in excess of \$1. The amount of any undercharge may be adjusted and billed to Customer, provided that in no event shall such period of adjustment exceed the length of time the service has been supplied to Customer through the incorrect metering installation at the present location, or six months, whichever is less. The six-month limitation does not apply in those instances where the adjustment is the result of an overcharge. In such instances, the present Customer shall be refunded all overcharges that occurred during the Customer's occupancy.

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NATURAL GAS TARIFF



Canceling	<u>1stOriginal</u>	Revised	Sheet No.	<u>R-9.4</u>
	<u>Original</u>	Revised	Sheet No.	<u>R-9.4</u>

Rule No. 9

METERING

- 9-11 Non-Registering Meter - Where a meter has failed to register for any period, for reasons beyond reasonable control of the Utility, the Utility may estimate the charge for service during such period. Such estimate to be based upon the best available data, provided that the period for such estimated charges shall not exceed six months, and in no event for a period longer than the present Customer's occupancy.
- 9-12 Bypassing or Tampering with Metering Facilities - Customers shall not interfere in any way with the metering facilities after they have been set in place. In cases where the meter seal is broken or the working parts of the meter have been tampered with or the meter damaged or there is evidence that a bypass has been used, the Utility may render a bill for the current billing period based upon the estimated use, considering past experience under similar conditions and may, in addition thereto, charge for the actual cost of repairing or replacing said meter and connections. Service may be discontinued or refused at the premises where such bypassing or tampering has occurred until all such charges are paid; provided, however, that during the winter moratorium on termination of service (Rule No. 13-10), service shall be reconnected after the interfered with installation has been repaired; and the Utility shall continue to provide service until Commission approval of termination is obtained.
- 9-13 Conjunctive Metering - For the purpose of rendering charges, each meter upon the Customer's premises shall be considered separately and readings of two or more meters shall not be combined except as follows:
- A. Where combinations of meter readings are specifically provided for in applicable rate schedule.
 - B. Where the maintenance of adequate service and/or where the Utility's operating convenience shall require the installation of two or more meters upon Customer's premises, instead of one meter.
- (The application of Paragraph (b) shall be determined by the nature of the meter installation, which would be made for new Customers enjoying a similar character of service.)
- 9-14 Transportation Service Metering - Rate Schedule GTC-1 details the metering requirements for gas transportation service.
- 9-15 AMI Opt-Out Provision - Through an opt-out application, a qualifying Customer, who pays the residential rate set forth in Schedule No. D-RG-1, can opt out of an advanced meter infrastructure ("AMI") natural gas endpoint. The application for Utility's Opt-Out provision is

NATURAL GAS TARIFF



	<u>Original</u>	Revised	Sheet No.	<u>R-9.5</u>
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METERING

available on Utility's website or Customer can request it be sent by mail. Customer must submit a complete application to be considered for this AMI Opt-Out provision. To be eligible to opt out, the Customer shall have no documented instances, within the past 24 months, of known attempted or unauthorized use, theft, or fraud. Further, Customer shall have zero instances of documented threats of violence toward or actual harm to Utility employees or its agents. Any Customer who opts out under this provision is ineligible to: (1) be served under a time-based rate, if available, or (2) participate in any other future services or offerings that use an advanced meter endpoint. The opted-out service is required to have a meter and residence on the same joined property (excluding apartments, condos, and similar multi-unit dwellings).

If a Customer opts out, Utility will install a non-communicative digital meter on the Customer's premise. Utility shall charge the opt-out Customer a one-time charge of seventy-five dollars and zero cents (\$75.00). If a Customer has more than one natural gas meter installed at Customer's premise, Customer shall pay thirty dollars and zero cents (\$30.00) for each additional natural gas endpoint that is changed to a non-communicative digital meter. Customers with meters manually read by the Utility will be charged a monthly opt-out charge of fifteen dollars and zero cents (\$15.00) per premise. Utility may refuse to provide service under the utility read option if such service: a) creates a safety hazard to customers, the public, or Utility's personnel or facilities; and/or b) Customer does not allow Utility's employees or agents access to the meter at the Customer's premises for maintenance, connection/disconnection, meter reading or any other utility need. If Customer is removed from or subsequently chooses an AMI endpoint, the monthly charge will cease to be applied once an AMI endpoint is installed.

Customer may self-read opted-out meters as long as Customer meets the criteria set forth in this provision. Customers with meters that are self-read will be charged a monthly opt-out charge of five dollars and zero cents (\$5.00) per premise. If a self-read Customer fails to provide a timely monthly reading on the scheduled read date (or within three (3) days prior) as reflected on their billing statement, Utility will estimate Customer's usage for that month. If Customer's reported usage deviates greater than 5% from the amount recorded during an audit, Customer will be removed from the self-read program and default to the Utility-read meter going forward, with the corresponding monthly charges. If Customer fails to provide a timely self-read three times in a twelve-month period, the Customer will be removed from the self-read program and will incur the Utility-read monthly meter fee or will be given the option to have an AMI endpoint installed at no cost.

NATURAL GAS TARIFF



	1 st	Revised	Sheet No.	R-9.1
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METERING

- 9-1 Meter and Regulator Installation - The Utility shall furnish, set, and maintain the meter and regulator; and the Customer shall provide and maintain, free of expense to the Utility, an unobstructed location, satisfactory to the Utility, for installation thereof as well as proper facilities, conforming to the Utility's service standards, for convenient installation, removal, and disconnection of the meter and regulator and for reading of the meter.
- 9-2 Customer's Responsibility - Customer shall exercise reasonable care in protecting the Utility's meter and other Utility-owned equipment located on Customer's premises. Only duly authorized employees or agents of the Utility, or persons authorized by law, are permitted to inspect or handle it.
- 9-3 Meter and Regulator Installation and Removal - Meters and regulators shall be installed or removed only by duly authorized employees or agents of the Utility.
- 9-4 Meter and Regulator Seals - All meters and regulators shall be sealed by the Utility. Law prohibits the breaking of seals by unauthorized persons, or tampering with meters or regulators.
- 9-5 Schedule of Meter Tests - The Utility shall test its meters in accordance with the following procedure:

New Meters – The Company purchases meters with accuracy certified by the manufacture to hold calibration for a period of not less than ten years. New meters will be visually inspected prior to installation at a customer facility and only be subject to testing should damage be detected.

Meters In Service –

1) All active meters not specifically classified in section 2 as Large Meter type, will be assigned to a meter family type based on the vintage year, model type, and know manufacture changes. Each year, samples will be selected from each family type and tested at twenty and eighty percent of full load. The sample will include meters removed from service for cause (i.e. service upgrades, high bill complaint investigation, building demolition, inactive service etc.) within the previous twelve-month timeframe with the balance consisting of randomly selected in-service meters. The number of samples and the pass/fail status of the tested lot will be determined by the ANSI/ASQC Z1.9-1993 standard. The method used will be the variability unknown, single specification Form-2 standard deviation method, with an acceptable quality level (AQL) of 10 % and an inspection level of II. Classification of the meter family under test will be determined under the following criteria:

(continued)

NATURAL GAS TARIFF



	<u>1st</u>	Revised	Sheet No.	<u>R-9.2</u>
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METERING

- a) Meters ten years old or newer fall within the manufactures guaranteed calibration period and will not be subject to testing.
 - b) A meter family deemed satisfactory by the ANSI test standard will stay in service subject to continued yearly testing.
 - c) A meter family that fails the initial ANSI standard will remain in service if it passed the previous years testing however the family will be placed on a tightened inspection practice for the following year. In addition, the failed family will be analyzed and may be broken into sub-families to isolate specific make and model related problems.
 - d) All meters within the original family or refined sub-families will be recalibrated or replaced if the lot fails for two consecutive years. Corrective action will begin in the next budget cycle with completion occurring within a four-year timeframe.
- 2) Large Meters – A percentage of large commercial and industrial meters will be subject to test each year until 100% of the meters are tested within an established timeframe. Meters falling outside of the standard of meter accuracy as defined in section 9-8 will be recalibrated, repaired or replaced during the test cycle. The meter class and the corresponding test cycle in years is indicated below:

Large Meter Test Cycles

<u>Class</u>	<u>Models</u>	<u>Testing Schedule in Years</u>
2	35B, 80B, AL800, AL1000	15 years
3	250B, AL1400, AL2300, 500B, AL500	5 years
4	800 – 11000 ROTARY	5 years
5	16000 – 38000 ROTARY	3 years

9-6 Special Meter Tests - At the request of the Customer, the Utility shall, within ten days after receipt of such request, make special meter tests. Customer shall bear the cost of such tests, including meter removal and replacement, if the meter is found to be within the limits of acceptable accuracy as defined below in Rule No. 9-8. In all other cases, the Utility shall bear the cost of the test.

9-7 Replacement of Meter - Whenever a Customer requests the replacement of the meter on Customer's premises, such request shall be treated as a request for a test of such meter and, as such, shall fall under the provisions of preceding Rule No. 9-6.

(continued)

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	<u>1st</u>	Revised	Sheet No.	<u>R-9.3</u>
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- 9-8 Standard of Meter Accuracy - The Utility shall not place in service or knowingly allow to remain in service, without adjustment, any meter that has a known error in registration of more than plus or minus two percent (2%) when passing gas at twenty percent (20%) of rated meter capacity with 0.5 inch water column differential.
- 9-9 Adjustment for Inaccurate Meter Registration - Whenever a tested meter in service is found to be fast or slow beyond the limit of accepted accuracy as defined in preceding Rule No. 9-8, the Utility shall make an adjustment based on the corrected registration for the period in which the meter was registering incorrectly, if such period is known; but for a period not to exceed six months where an undercharge has occurred. The six-month limitation does not apply in those instances where the adjustment is the result of an overcharge. In those instances, where the period of adjustment can be determined with a reasonable degree of accuracy, Customer shall be refunded all overcharges that occurred over the entire period of the incorrect meter registration. Whenever any bill or bills have been adjusted or corrected, as provided above, and whenever such adjustment amounts to \$1 or more, the Utility shall refund to Customer, or credit to Customer's account, any amount found to have been collected in excess of the proper amount; or the Utility may, within the limitations set forth above, require Customer to pay, or add to Customer's account, additional amounts due. In no event shall the period of adjustment, for either undercharges or overcharges, exceed the duration of the present Customer's occupancy. Where actual recorded data identifying errors of this nature are not available, it may be difficult, if not impossible, to determine the amount of such errors with any great degree of precision. In such instances, both the amount of meter error and the period of time over which the meter was registering incorrectly may be determined by engineering estimate.
- 9-10 Incorrect Meter Installation - In the event a Customer has been overcharged or undercharged as a result of an incorrect meter installation, the amount of the overcharge shall be adjusted and refunded to the Customer, or credited to Customer's account, if in excess of \$1. The amount of any undercharge may be adjusted and billed to Customer, provided that in no event shall such period of adjustment exceed the length of time the service has been supplied to Customer through the incorrect metering installation at the present location, or six months, whichever is less. The six-month limitation does not apply in those instances where the adjustment is the result of an overcharge. In such instances, the present Customer shall be refunded all overcharges that occurred during the Customer's occupancy.

(continued)

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- 9-11 Non-Registering Meter - Where a meter has failed to register for any period, for reasons beyond reasonable control of the Utility, the Utility may estimate the charge for service during such period. Such estimate to be based upon the best available data, provided that the period for such estimated charges shall not exceed six months, and in no event for a period longer than the present Customer's occupancy.
- 9-12 Bypassing or Tampering with Metering Facilities - Customers shall not interfere in any way with the metering facilities after they have been set in place. In cases where the meter seal is broken or the working parts of the meter have been tampered with or the meter damaged or there is evidence that a bypass has been used, the Utility may render a bill for the current billing period based upon the estimated use, considering past experience under similar conditions and may, in addition thereto, charge for the actual cost of repairing or replacing said meter and connections. Service may be discontinued or refused at the premises where such bypassing or tampering has occurred until all such charges are paid; provided, however, that during the winter moratorium on termination of service (Rule No. 13-10), service shall be reconnected after the interfered with installation has been repaired; and the Utility shall continue to provide service until Commission approval of termination is obtained.
- 9-13 Conjunctive Metering - For the purpose of rendering charges, each meter upon the Customer's premises shall be considered separately and readings of two or more meters shall not be combined except as follows:
- A. Where combinations of meter readings are specifically provided for in applicable rate schedule.
 - B. Where the maintenance of adequate service and/or where the Utility's operating convenience shall require the installation of two or more meters upon Customer's premises, instead of one meter.
- (The application of Paragraph (b) shall be determined by the nature of the meter installation, which would be made for new Customers enjoying a similar character of service.)
- 9-14 Transportation Service Metering - Rate Schedule GTC-1 details the metering requirements for gas transportation service.
- 9-15 AMI Opt-Out Provision - Through an opt-out application, a qualifying Customer, who pays the residential rate set forth in Schedule No. D-RG-1, can opt out of an advanced meter infrastructure ("AMI") natural gas endpoint. The application for Utility's Opt-Out provision is
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available on Utility's website or Customer can request it be sent by mail. Customer must submit a complete application to be considered for this AMI Opt-Out provision. To be eligible to opt out, the Customer shall have no documented instances, within the past 24 months, of known attempted or unauthorized use, theft, or fraud. Further, Customer shall have zero instances of documented threats of violence toward or actual harm to Utility employees or its agents. Any Customer who opts out under this provision is ineligible to: (1) be served under a time-based rate, if available, or (2) participate in any other future services or offerings that use an advanced meter endpoint. The opted-out service is required to have a meter and residence on the same joined property (excluding apartments, condos, and similar multi-unit dwellings).

If a Customer opts out, Utility will install a non-communicative digital meter on the Customer's premise. Utility shall charge the opt-out Customer a one-time charge of seventy-five dollars and zero cents (\$75.00). If a Customer has more than one natural gas meter installed at Customer's premise, Customer shall pay thirty dollars and zero cents (\$30.00) for each additional natural gas endpoint that is changed to a non-communicative digital meter. Customers with meters manually read by the Utility will be charged a monthly opt-out charge of fifteen dollars and zero cents (\$15.00) per premise. Utility may refuse to provide service under the utility read option if such service: a) creates a safety hazard to customers, the public, or Utility's personnel or facilities; and/or b) Customer does not allow Utility's employees or agents access to the meter at the Customer's premises for maintenance, connection/disconnection, meter reading or any other utility need. If Customer is removed from or subsequently chooses an AMI endpoint, the monthly charge will cease to be applied once an AMI endpoint is installed.

Customer may self-read opted-out meters as long as Customer meets the criteria set forth in this provision. Customers with meters that are self-read will be charged a monthly opt-out charge of five dollars and zero cents (\$5.00) per premise. If a self-read Customer fails to provide a timely monthly reading on the scheduled read date (or within three (3) days prior) as reflected on their billing statement, Utility will estimate Customer's usage for that month. If Customer's reported usage deviates greater than 5% from the amount recorded during an audit, Customer will be removed from the self-read program and default to the Utility-read meter going forward, with the corresponding monthly charges. If Customer fails to provide a timely self-read three times in a twelve-month period, the Customer will be removed from the self-read program and will incur the Utility-read monthly meter fee or will be given the option to have an AMI endpoint installed at no cost.

Loaded Labor Rates	Electric	Gas
MT Meter Reader	\$ 45.53	\$ 45.53
MT Serviceman	\$ 78.24	\$ 76.56
Total Loaded Labor MT	\$ 78.24	\$ 76.56
MT Billing	\$	40.40

METER TEST BY CUSTOMER REQUEST

Any Customer may request the Company to test its electric meter. The Company shall make such test as soon as possible after receipt of the request. If a request is made within one year after a previous request, the Company may require a residential Customer to pay a \$10 deposit and may require any other Customer to pay a deposit in the following amount:

Single Phase Meter	\$10.00
Single Phase Demand and Self-Contained 3-Phase Meter	\$20.00
All other Polyphase	\$30.00

MT Opt Out (DRAFT COSTS)										
Per Meter Fees	Electric meter (actual)				Gas module (actual)				Proposed Electric Fees	Proposed Gas Fees
	Units	Unit	\$/Unit	Total	Units	Unit	\$/Unit	Total		
Exchange Fee for Opt Out (Normal business hours)										
Cost for a non-communicating digital meter/ERT	1.000	ea	45.78	45.78	1.000	ea	12.50	\$ 12.50		
Meter/Index Installation & Meter/Index Exchange	0.801	hr	82.10	65.76	1.339	hr	80.33	\$ 107.56		
				\$ 111.54				\$ 120.06	\$75 and \$30 for each additional meter	\$75 and \$30 for each additional meter
Monthly Costs for Opt Out										
Utility Manual Read	0.829	hr	78.24	64.86	0.829	hr	76.56	\$ 63.47	Proposed fee for utility read	Proposed fee for utility read
Back office processing cost	0.100	hr	40.40	4.04	0.100	hr	40.40	\$ 4.04		
Total Monthly Costs				\$ 68.90				\$ 67.51	\$15	\$15
Self Read Costs										
Monthly Back Office processing cost per service order/self reads	0.100	hr	40.40	\$ 4.04	0.100	hr	40.40	\$ 4.04	Proposed fee for customer read	Proposed fee for customer read
Annual verification/audit	0.829	hr	78.24	5.41	0.829	hr	76.56	5.29		
Total Monthly Costs for Self Read				\$ 9.45				\$ 9.33	\$5	\$5

7 **PREFILED DIRECT TESTIMONY**

8 **OF MATTHEW J. HOLDEN**

9 **ON BEHALF OF NORTHWESTERN ENERGY**

10
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16	Transition Plan from Voluntary Bypass to Opt-Out Program	7
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18	<u>Exhibits</u>	
19	AMI Brochure	Exhibit MJH-1
20	Post Card	Exhibit MJH-2
21	Energy Connections Article	Exhibit MJH-3
22	Proposed Opt-Out Application	Exhibit MJH-4

23

1 **Witness Information**

2 **Q. Please provide your name, employer, and title.**

3 **A.** My name is Matthew J. Holden. I am a Project Manager within the Project
4 Management Office for NorthWestern Energy (“NorthWestern”).

5
6 **Q. Please provide a description of your relevant employment
7 experience and other professional qualifications.**

8 **A.** The role of Project Manager of the Montana Meter Upgrade Project has
9 been my primary responsibility since 2021. Prior to starting on the
10 Montana Meter Upgrade Project, I was the Project Manager for the South
11 Dakota Meter Upgrade Project for nearly three years. Before working on
12 the meter upgrade projects in Montana and South Dakota, I was the
13 Project Manager for the Montana Distribution System Infrastructure
14 Project for three years and worked as the Project Manager for Distribution
15 Substation Automation.

16
17 I have a Bachelor of Science degree in Mechanical Engineering from
18 Montana Tech and have been with NorthWestern for 17 years and
19 working in the energy field for 21 years.

20
21 **Purpose and Summary of Testimony**

22 **Q. What is the purpose of your testimony in this docket?**

1 **A.** My testimony provides a high-level overview of the Montana Meter
2 Upgrade Project, NorthWestern’s proposed Opt-Out Program, and details
3 around the communications associated with the Opt-Out Program.
4

5 **Q. Please summarize your testimony.**

6 **A.** My testimony focuses on my role within the Montana Meter Upgrade
7 Project and NorthWestern’s Advanced Metering Infrastructure (“AMI”) Opt-
8 Out Program, including customer communications, customer options,
9 eligibility, enrollment, and the application form.
10

11 **Voluntary Bypass**

12 **Q. What was NorthWestern’s response to the changes in Montana law**
13 **House Bill 606 and the subsequently promulgated new**
14 **administrative rules providing customers with the ability to opt out**
15 **from advanced meters?**

16 **A.** NorthWestern received input from the Montana Public Service
17 Commission (“Commission”) and subsequently the Montana Legislature
18 that although the statute as originally drafted did not require NorthWestern
19 to create an opt-out program based on the characteristics of its meter,
20 there was a desire that customers be offered a choice. While the
21 legislative and regulatory processes progressed to address this concern,
22 NorthWestern implemented its Montana Meter Upgrade Project and began
23 installing AMI meters. To address concerns, NorthWestern initiated a

1 voluntary bypass option for customers. A formal opt-out process was not
2 appropriate until the Commission considered and approved a tariff so
3 NorthWestern believed this process captured the spirit of the legislation
4 under consideration and preserved the status quo for customers. The
5 voluntary bypass option allowed customers to keep their existing meter
6 rather than upgrade while the Opt-Out Program was designed, vetted by
7 the Commission, and implemented.

8

9 **Q. Please explain how the voluntary bypass option works.**

10 **A.** Customers can call or email NorthWestern to request the option of a
11 voluntary bypass. The request is documented as a 'task' in our Customer
12 Information System (CIS), which records the customer's request along
13 with the date and time it was recorded. This 'task' signifies that the
14 customer or property owner has requested the voluntary bypass.
15 Customers who elect to be bypassed means NorthWestern has not
16 removed their existing electric meter and/or gas module and replaced
17 them with the new AMI endpoints. NorthWestern keeps a record of
18 everyone participating in the voluntary bypass program so those
19 customers will be revisited upon approval of the Opt-Out Program.

20

21 **Q. To date, how many NorthWestern customers have chosen the**
22 **voluntary bypass option?**

1 **A.** As of May 31, 2022, 1,025 NorthWestern customers have requested the
2 voluntary bypass option. That number represents approximately 0.64% of
3 AMI meters installed. Customers participating in the voluntary bypass
4 program will have the option to choose to formally opt out after the
5 Commission approves a tariff.

6

7 **Q. Have customers who selected the voluntary bypass option been**
8 **charged any fees?**

9 **A.** No, NorthWestern has not assessed any fees or costs to these customers.
10 The voluntary bypass was always intended to preserve the status quo in
11 the short term until the Opt-Out Program was implemented.

12

13 **Q. What communication has NorthWestern had with customers about**
14 **the Montana Meter Upgrade Project and the voluntary bypass**
15 **option?**

16 **A.** NorthWestern communicates with customers several ways. We mailed
17 our brochures to customers at least 60 days in advance of the upgrade
18 coming to their community, sent post cards approximately two weeks prior
19 to each home being upgraded, and included Energy Connections articles
20 within their bill mailings related to the AMI project and the voluntary
21 bypass option. The brochure, post card, and an Energy Connections
22 article are provided as my Exhibits MJH-1, MJH-2, and MJH-3,
23 respectively. NorthWestern also provides information on its website

1 regarding the voluntary bypass, which includes phone numbers for
2 NorthWestern and the Commission if the customer has additional
3 questions.

4

5 **Q. Are there any other communication channels customers can use to**
6 **learn more about this bypass option or the Meter Project?**

7 **A.** If customers have additional questions that were not answered with
8 information contained in the provided material, they can visit directly with a
9 NorthWestern employee who can provide additional information to answer
10 their questions related to their specific concerns with the AMI project. As
11 project manager, I have worked with many of these customers, both on
12 the telephone and via email. Customers typically request additional
13 information regarding the meters, including how they work and perceived
14 health or safety risks. I have worked with customers to shift the location of
15 their meter to minimize any radio frequency (RF) emissions into their
16 homes. I have provided specific detail around the difference between the
17 new AMI meter and the current Automated Meter Reading equipment, why
18 NorthWestern needs to upgrade the meter, and potential future benefits of
19 a modernized grid.

20

21 **Q. Have these conversations with customers been helpful in resolving**
22 **customer questions?**

1 **A.** I believe that these conversations have been helpful to customers. We do
2 not keep metrics on the number of customers who call with questions
3 versus those who ultimately choose the voluntary bypass, but based on
4 my experience I estimate only about half of the people I talk to have
5 chosen to bypass. I expect even fewer customers will ultimately transition
6 from the voluntary bypass to the formal Opt-Out Program.

7
8 **Transition Plan from Voluntary Bypass to Opt-Out Program**

9 **Q.** **When the Commission approves NorthWestern’s opt-out tariffs, how**
10 **will NorthWestern communicate with customers about the Opt-Out**
11 **Program?**

12 **A.** NorthWestern will publicize its new Opt-Out Program to all customers, not
13 just those who selected the voluntary bypass. NorthWestern will make
14 every effort to connect with the customers currently on the voluntary
15 bypass list, through both written communication and a follow-up phone
16 call. NorthWestern will have informed conversations with these customers
17 to ensure they understand the options and associated costs for continuing
18 to opt out of the Montana Meter Upgrade Project.

19
20 Affirmative action by customers wishing to opt out will be required. Every
21 NorthWestern customer will get a new meter as part of the Montana Meter
22 Upgrade Project, either an AMI meter or a non-communicating meter.
23 Customers on the voluntary bypass list must complete the opt-out

1 application and select a meter-reading option to formally opt out. Any
2 voluntary bypass customers who fail to complete an opt-out application
3 will be provided an AMI endpoint until an application has been submitted
4 and validated by NorthWestern.

5
6 **Q. Will these voluntary bypass customers be assessed any costs if they**
7 **elect to opt out?**

8 **A.** Yes, the customers electing to opt out will be assessed the fees approved
9 by the Commission and contained in NorthWestern's tariff. NorthWestern
10 proposes a one-time fee of \$75 per commodity type at the customer's
11 premise to have a non-communicating digital electric meter installed
12 and/or to remove the natural gas Encoder Receiver Transmitter
13 (communication endpoint) module. If there are additional meters at the
14 premise, there would be an extra \$30 fee per meter. And then, based
15 upon the option the customer has selected, there would be a monthly \$15
16 fee if NorthWestern reads the meter(s) or a monthly \$5 fee if the customer
17 chooses to read the meter(s) themselves. See the Prefiled Direct
18 Testimony of Cynthia S. Fang for a discussion of the opt-out fees. A
19 property owner will need to authorize the opt-out request if different from
20 the requestor.

21
22 **Q. Has NorthWestern developed the application referenced in the opt-**
23 **out tariffs proposed in this docket?**

1 **A.** Yes. NorthWestern’s proposed application is provided as my Exhibit MJH-
2 4. This application is a draft provided for illustrative purposes, and it will
3 not be included in the tariff. As with other applications, NorthWestern
4 reserves the right to alter the application to meet utility needs.

5
6 **Q. Please walk through the application and the information
7 NorthWestern will require from customers in order to opt out.**

8 **A.** The opt-out application explains which customers are eligible to opt out of
9 an AMI electric meter or natural gas module, how the application process
10 will work, and the opt-out fees and requirements for submitting self reads.

11
12 NorthWestern will require the customer to select either the utility-read or
13 self-read option and provide their residency status, name, account
14 number, and service address.

15
16 **Q. Where can customers obtain a copy of the opt-out application and
17 where should it be submitted when completed?**

18 **A.** The opt-out application will be found online on the NorthWestern website.
19 Customers will be able to submit the completed application via mail or
20 email to the Customer Service section of the NorthWestern website.

21
22 **Q. How does NorthWestern plan to process these applications and
23 communicate with customers after receipt of the applications?**

1 **A.** NorthWestern will process the applications in the order received, and will
2 communicate via email or mail to the customer that their application has
3 been received. A follow-up letter will be sent to the requestor and/or
4 property owner informing them of whether the application was accepted,
5 denied, or further information is needed to process the application.
6 Customers will be able to apply to participate in the Opt-Out Program and
7 pay the initial fee, but their applications will not be finalized or the monthly
8 charge commenced until the Meter Upgrade Project reaches their
9 community.

10

11 **Q. Will NorthWestern continue to provide customers with information**
12 **about the Montana Meter Upgrade Project and address any concerns**
13 **customers have with the meters and the opt-out process?**

14 **A.** Absolutely. NorthWestern will continue providing brochures and postcards
15 about the project prior to installations taking place. In addition, project
16 updates and information about the Opt-Out Program will be provided on
17 the NorthWestern website throughout the duration of the project. If
18 customers have additional questions that have not been answered by the
19 online or printed information, they can call NorthWestern and ask to speak
20 to an AMI representative to help answer their questions.

21

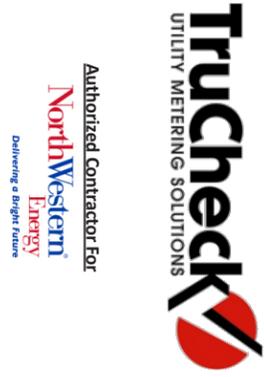
22 **Q. Does this conclude your testimony?**

23 **A.** Yes, it does.

VERIFICATION

This Prefiled Direct Testimony of Matthew J. Holden is true and accurate to the best of my knowledge, information, and belief.

/s/ Matthew J. Holden
Matthew J. Holden



11 E PARK ST
BUTTE MT 59701-1711



NorthWestern Energy will install approximately 590,000 new electric meters and gas modules in Montana, part of a technology upgrade project that will enable two-way meter communication between NorthWestern Energy and its advanced meters on customers' homes and businesses.

NorthWesternEnergy.com/meters,
NorthWesternEnergyMeters@northwestern.com
1-800-486-4280.

QUESTIONS?

Watch for a postcard in the mail, to let you know when Tru-Check crews will be in your neighborhood installing new meters.



A door hanger will let residents know their upgrade was successful. If the technician can't access the meter, a door hanger will be left with instructions to call to make an appointment.

There will be a short interruption of electric service during the installation of the new electric meter. There will be no interruption of gas service during the installation of the new gas module.

Customers don't need to be home. A Tru-Check technician will knock on your door before the new meter is installed.

There will be a short interruption of electric service during the installation of the new electric meter. There will be no interruption of gas service during the installation of the new gas module.

Most of the installations will occur Monday through Friday during business hours; though there will be cases when evening or weekend installations may be necessary. NorthWestern Energy contracted with Tru-Check to install the new advanced meters; the same company that installed the first generation, one-way communication meters in 1998 that are in use today.

How will I know when my meter is changed?

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Answers to some of the most common questions about the new meters:



What are the upgraded features?

These meters allow two-way communication between NorthWestern Energy and its meters that are on customer homes and businesses. The meters record total energy use, kWh (electric meters) and therms (gas meters) about once an hour, and securely communicate the information to NorthWestern Energy's data center 3 times daily. NorthWestern Energy will be able to perform functions remotely that today require a trip to a customer's home or business.

What kind of metering system does NorthWestern Energy have today in Montana?

NorthWestern Energy has been reading existing meters remotely since 1998. Our existing technology uses a meter read collector that is mounted in a vehicle. The vehicle drives around and wirelessly retrieves current meter reads. The upgraded metering technology uses similar wireless communication technology with strategically placed collectors mounted on power poles that replace the need for a vehicle.

How do advanced meters help move us toward a more sustainable future?



The energy grid is evolving, driven by the need to support more renewable resources as we transition to an even cleaner energy future. The challenge with renewable resources is that they are often variable in nature and do not align with the timing of highest energy demands. Smart metering provides more data on grid operations, which will allow opportunities for the implementation of new customer programs and technology that will help balance the energy grid with renewable supply resources.

The advanced meter upgrade project will reduce the number of miles NorthWestern Energy vehicles are on the road. NorthWestern Energy will be able to perform functions remotely that today require a trip to a customer's home or business. The meters read total household or business energy use and send that information to collectors located on power poles. This eliminates the need for a vehicle with a mounted collector to drive past customer homes and businesses.

How do advanced meters benefit customers?

Upgraded metering technology will improve service reliability. In most cases, the system will notify NorthWestern Energy of an outage. This advanced notification allows our crews to return service to customers faster. The upgraded advanced meters will also gather total energy use on an interval basis to address customer questions related to bills and opportunities for energy savings. Customers will have more information to use to make decisions about their energy use.

How do the advanced meters benefit NorthWestern Energy?

The upgraded meters and modules communicate energy use information 3 times daily. That information is sent remotely to NorthWestern Energy's data center for operations, billing and customer service. This means we can better assist our customers with their individual energy needs and more quickly detect and respond to power outages and customer inquiries. The new technology, in some cases, allows NorthWestern Energy to connect and disconnect service remotely instead of sending personnel to customers' property.

What happens to the electric meter and gas module on my home or business now?

NorthWestern Energy has a contract to recycle the electric meters and gas modules in use now when new meters and modules are installed.

Will I have to pay for the meter?

No. The electric meters and gas modules are purchased and owned by NorthWestern Energy. They are part of our infrastructure, similar to our power poles and transformers.

How are all these new advances possible?



To read more and see the informational videos on our website, scan this QR code with your smartphone or visit www.northwesternenergy.com/meters



What if I don't want an upgraded meter?

NorthWestern Energy is bypassing customers who do not want an upgraded advanced meter. NorthWestern Energy Montana customers will have the right to opt-out of the use of advanced metering devices and may be required to pay a tariff charge, if a tariff is approved by the Montana Public Service Commission. However, at this time, an opt-out-tariff charge has not been considered by the Montana PSC. For more information, call NorthWestern Energy at 1-800-486-4280.

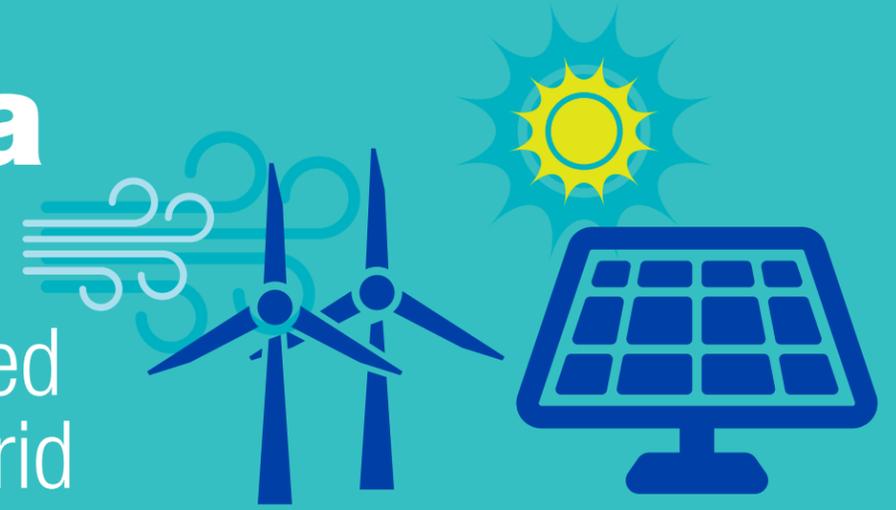
Montana law allows customers to opt-out of the use of advanced metering devices according to terms and conditions set by the Montana Public Service Commission. No utility company can require the use of an advanced metering device. If you have questions about your opt-out rights, please contact the Montana Public Service Commission at 1-800-646-6150.

Customer Service



Investing in technology for a bright future

Two-way communication advanced meters and the evolving energy grid



Community

Outage management

Upgraded metering technology will improve service reliability. In most cases, the system will notify NorthWestern Energy of an outage. This allows our crews to return service to customers faster.

Proactive outage prevention

We are already preventing outages before they start in South Dakota, where NorthWestern Energy's new advanced meters on customers' homes and businesses use two-way communication. System voltage information is securely transmitted to the NorthWestern Energy data center and problems with equipment such as an underground line can often be identified before those problems result in an outage.

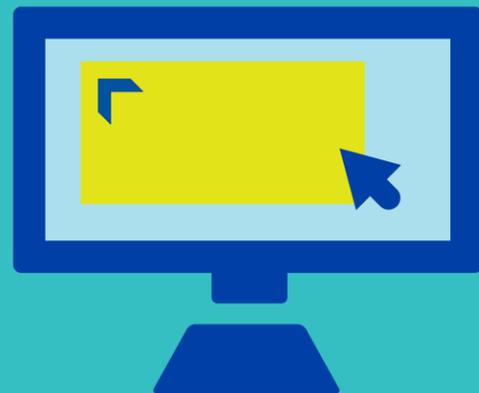
Sustainable future

- Support for additional renewable resources as we transition to an even cleaner energy future.
- Fewer miles driven by NorthWestern Energy vehicles. The new meters enable functions that require a trip to customers homes and businesses today to be completed remotely and eliminate the need for a vehicle with a mounted collector to drive past meters to get a read.



Customer Communication

The upgraded advanced meters and modules communicate energy usage information 3 times daily. That information is securely sent remotely to NorthWestern Energy's data center for operations, billing and customer service. This means we can better assist our customers with their individual energy needs and more quickly detect and respond to power outages and customer inquiries.



Tomorrow's communities

NorthWestern Energy's technology upgrade opens the door for innovations communities are asking for today.

These new meters will be the backbone of future services, such as remote streetlight control, time of use, prepaid metering and more. NorthWestern Energy can work with communities to offer services that are not possible with the current metering technology.





We will be in your neighborhood in the next couple of weeks

NorthWestern Energy's contractor, Tru-Check, will be replacing our electric meters and/or our gas meter modules on your home or business in the next couple of weeks. Most of the installations will occur during weekday business hours.

There will be a short interruption of electric service during the installation of the new electric meter for residential customers. Technicians will return in about 8 weeks to install a new gas module if you receive natural gas service from NorthWestern and there should not be an interruption of gas service.





11 E PARK ST
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A Tru-Check technician will knock on your door before the new meter is installed. Customers don't need to be home. A door hanger will be left to let you know that the upgrade was successful and include instructions to make an appointment if needed. Please make sure your meter is accessible.

Customers have the right to opt out of the use of the advanced meters and are bypassed.

If you have questions about your opt-out rights, please contact the Montana Public Service Commission at 1-800-646-6150.

LEARN MORE OR CONTACT US AT:

-  NorthWesternEnergy.com/meters
-  NorthWesternEnergyMeters@northwestern.com
-  1-800-486-4280



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RETURN SERVICE REQUESTED



Update on our Montana Meter Upgrade Project

In 2021, we began a four-year project to install approximately 590,000 new electric meters and gas modules in Montana, part of a technology upgrade project that will enable two-way meter communication between NorthWestern Energy and the meters on customers' homes and businesses.

As of the end of March, we had installed 132,675 new meters in the state, mainly in the Missoula and Butte areas. In June, we will begin installing meters in the Bozeman area, with work set to begin in and around Billings this fall.

Thanks to the two-way communication of our digital meters, the new meters will alert us of problems long before we would otherwise be aware of them and allow us to fix problems before they cause outages.

We've already seen successes in our South Dakota service territory, where we completed a meter upgrade project in 2021. There have been multiple examples of meters alerting us of issues, such as low or high voltages, allowing us to fix those problems before they

caused outages.

When there is an outage, the new meters will alert us, which means our crews can respond more quickly and restore service faster. Currently, we may not be aware of an outage until a customer reports it.

The upgraded meters and modules communicate energy usage information three times daily. That information is securely sent remotely to NorthWestern Energy's data center for operations, billing and customer service. This means we can better assist our customers with their individual energy needs and respond to customer inquiries.

The energy grid is evolving, and this technology upgrade opens the door for innovations communities are asking for today. These new meters will be the backbone of future services, such as remote streetlight control, time-of-use pricing, prepaid metering and more. NorthWestern Energy can work with communities to offer services that are not possible with the current metering technology.

When will meters be installed in my area?

Here is a list of approximate dates for the Montana meter upgrade project by area:

- Missoula Area – in progress, ending August 2022
- Butte Area– in progress, ending May 2022
- Bozeman Area – June 2022 – December 2023
- Billings Area - October 2022 – October 2023
- Havre Area – March 2023 – September 2023
- Helena Area – June 2023 – May 2024
- Great Falls Area – Sept 2023 – June 2024
- Lewistown Area – January 2024 – June 2024

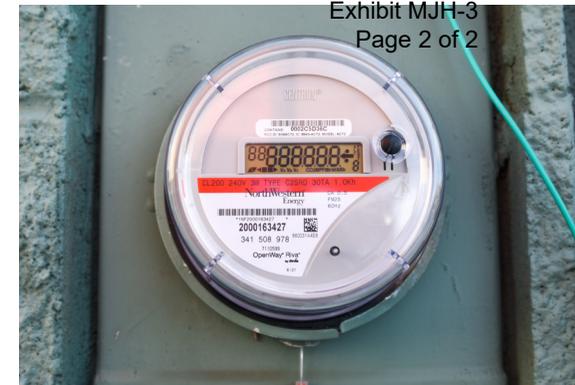


What happens when my meter is changed?

Six to eight weeks before your meter is changed, you'll receive a communication in the mail from NorthWestern Energy explaining the meter change out process. You'll receive a follow-up postcard two or three weeks before crews are scheduled to be in your neighborhood.

You do not need to be home when your meter is changed. A technician will knock on your door to alert you they are changing your meter. There will be a short interruption of electric service during the installation of the new electric meter. There will be no interruption of gas service during the installation of the new gas module.

A door hanger will let you know the upgrade was successful. If the technician can't access the meter, a door hanger will be left with instructions to call to make an appointment.



What if I don't want an upgraded meter?

NorthWestern Energy is currently bypassing customers who do not want an upgraded meter while we develop our opt-out tariff. NorthWestern Energy Montana customers will have the right to opt-out of the use of advanced metering devices and may be required to pay a tariff charge, once the tariff is approved by the Montana Public Service Commission. However, at this time, an opt-out-tariff charge has not been approved by the Montana PSC.

For more information, call NorthWestern Energy at 1-800-486-4280.

Montana law allows customers to opt-out of the use of advanced metering devices according to terms and conditions set by the Montana Public Service Commission. No utility company can require the use of an advance metering device. If you have questions about your opt-out rights, please contact the Montana Public Service Commission at 1-800-646-6150.

Learn more about our meter project

- Online: NorthWesternEnergy.com/meters
- In Bright magazine: NorthWesternEnergy.com/Bright
- Watch a video: <https://youtu.be/NVHeVIDrDT8>



Scan this QR code with your phone's camera to watch a video about our meter upgrade project

Advanced Meter Opt-Out Application

Eligibility to Enroll in Advanced Meter Opt Out

- The request to Opt Out needs to be submitted by the property owner or the requestor needs to get the property owner's authorization if the requestor is a tenant. If either the requestor or authorized owner (if different) has a documented instance of known unauthorized use, theft, fraud, or documented instances of threats of violence toward Utility employees or its agents they are not eligible. The service desired to be opted-out is required to have a meter and residence on the same joined property (excluding apartments, condos, and similar multi-unit dwellings). The residence is also required to be on a residential rate with less than or equal to 320 amps service.

Enrolling in Advanced Meter Opt Out

- Submit a completed application. Incomplete applications may delay processing.
- After NorthWestern Energy receives an application, the requestor and property owner (if different from the requestor) will receive an email to confirm the application has been received. If no email address is provided, a letter will be mailed to the mailing address on record for the service address listed on the application form.
- After an application is processed, the requestor and property owner (if different from the requestor) will receive an approval or denial letter via email or USPS mail.

Submitting Self Read

- A customer may call into NorthWestern Energy to provide their monthly read or submit the monthly read online.
- To submit monthly reads online customers will need to have a *My Energy Account* <https://myaccount.northwesternenergy.com/NWESSP>

Advanced Meter Opt Out Application

(Please complete a separate application for each address)

Terms & Conditions

I represent that I am the authorized person on the customer account number provided. I further represent that I am either the legal owner of the premise or a tenant at the premise who has obtained authorization from the owner as indicated below.

By signing this form, I am indicating that I want to opt-out of NorthWestern Energy's Advanced Meter program. By signing this form, I acknowledge that a non-communicating digital meter(s) shall be installed at the service address listed on this form in lieu of an advanced meter.

I understand that I will not be able to receive future potential benefits of an advanced meter such as proactive outage notifications and restorations related to meter events, energy usage on an interval basis, and billing alerts.

I understand that I will be assessed a meter installation fee to replace the existing meter at the premise with a non-communicating digital meter. I understand that my account will be assessed a monthly meter reading fee based upon the read option selected on this application. I agree that I will maintain a clear and direct access to my meter(s) so NorthWestern Energy employees can access the meter(s) on the property and NorthWestern Energy does not provide advanced notice when accessing my property to read the meter(s).

One time meter installation fee: \$75.00

Monthly Meter Read Option (Please select one)

- Utility to read my meter each month (**\$15 monthly charge**)
- I will report my meter read each month (**\$5 monthly charge**)

Residency Status (Please check all that apply. Note – tenants must get landlord/owner authorization)

I am a tenant I live at the premise I am an owner/landlord

Name of Person Requesting Opt-Out _____ Phone _____

Account Number _____ Email _____

Service Address _____

Owner/Landlord Name (if different than person requesting opt-out) _____

Owner/Landlord Phone _____

Reason for Opt Out (optional) _____

By signing this application, I agree to the terms listed above.

Signature _____ Date _____

Owner/Landlord Signature _____ Date _____

*If the requestor is not the legal owner of the premise, then the owner must also approve the opt-out.

7 **PREFILED DIRECT TESTIMONY**

8 **OF CYNTHIA S. FANG**

9 **ON BEHALF OF NORTHWESTERN ENERGY**

10
11 **TABLE OF CONTENTS**

12 <u>Description</u>	<u>Starting Page No.</u>
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17	
18 <u>Exhibit</u>	
19 Opt-Out Charge Data of Other Utilities	Exhibit CSF-1
20	
21	

22 **Witness Information**

23 **Q. Please provide your name, employer, and title.**

24 **A.** My name is Cynthia (Cyndee) Fang. I am NorthWestern Energy’s
25 (“NorthWestern”) Director of Regulatory Affairs.
26

1 **Q. Please provide a description of your relevant employment**
2 **experience and other professional qualifications.**

3 **A.** As Director of Regulatory Affairs for NorthWestern, my primary
4 responsibilities include the oversight of regulatory activities before the
5 Montana Public Service Commission (“Commission”). Prior to joining
6 NorthWestern in 2021, I held various leadership roles at San Diego Gas &
7 Electric (“SDG&E”) including Manager of Customer Pricing, overseeing
8 rate strategy, Manager of Energy Research & Analysis, overseeing
9 electric load forecasting, research and analysis, and Origination and
10 Portfolio Design Manager, leading electric procurement efforts. Before
11 SDG&E, I was a public utilities rates analyst with the Energy Division of
12 the Minnesota Department of Commerce. I hold a Bachelor of Science
13 degree in Political Economics of Natural Resources and have completed
14 all of the coursework for a Ph.D. in Economics.

15

16 **Purpose and Summary of Testimony**

17 **Q. What is the purpose of your testimony in this docket?**

18 **A.** The purpose of my testimony is to present NorthWestern’s proposed
19 charges to customers who choose to opt out of service provided by
20 Advanced Metering Infrastructure (“AMI”) meters, NorthWestern’s new
21 standard meter, and receive service through an alternative non-
22 communicating meter.

23

1 **Q. Please summarize your testimony.**

2 **A.** My testimony describes NorthWestern's proposed opt-out charges,
3 provides background on the opt-out charges of other utilities, and
4 discusses the reasonableness of NorthWestern's proposed charges.

5

6 **NorthWestern's Proposed Opt-Out Charges**

7 **Q. What is NorthWestern's proposal for opt-out charges?**

8 **A.** NorthWestern proposes the following charges:

- 9 • One-Time Opt-Out Fee of \$75 per service type (electric or natural gas)
10 to address the costs of the non-standard meter and costs for its
11 installation plus \$30 for each additional meter of the same service type
12 at a customer premise to address the cost of the additional non-
13 standard meters, and
- 14 • On-going Monthly Charge of \$15 a month to address the on-going
15 need for a manual read by NorthWestern and back office processing
16 costs. For customers who elect to self read, this fee would be reduced
17 to \$5 a month.

18

19 **Q. How did NorthWestern determine the appropriate level for these**
20 **charges?**

21 **A.** NorthWestern's proposal considered both its costs of maintaining this
22 optional service for customers as well as the opt-out charges of other

1 utilities. As presented by witness John Thurmond, NorthWestern's costs
2 of maintaining the option to opt out from AMI are:

- 3 • One-Time Exchange costs for Opt-Out, which includes the costs for a
4 non-communicating digital meter and the costs of its installation. For
5 electric, the one-time cost is \$111.54 and for natural gas it is \$120.06.
- 6 • Monthly costs for Opt-Out, which includes costs associated with
7 NorthWestern manually reading the meter and related back office
8 processing costs. These monthly costs are \$68.90 for electric and
9 \$67.51 for natural gas. For customers who elect to self read, these
10 monthly costs are \$9.45 for electric and \$9.33 for natural gas.

11

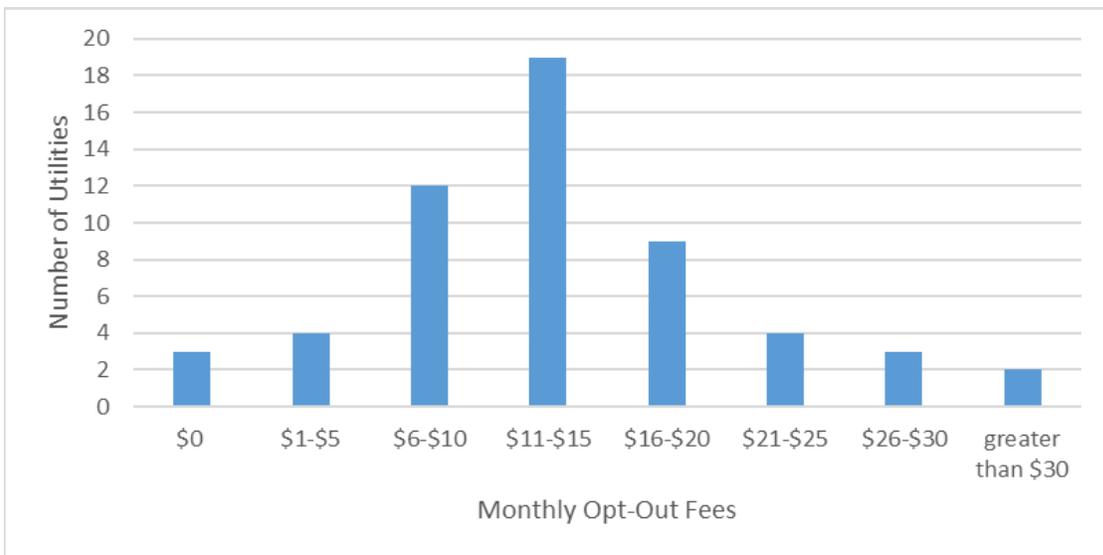
12 In addition, NorthWestern reviewed the one-time fees and monthly
13 charges related to opt-out of 56 other utilities in various jurisdictions.
14 These fees and charges are presented in Charts 1 and 2 below, with
15 further details provided in Exhibit CSF-1.

- 16 • One-time opt-out fees ranged from \$0 to \$170 with two-thirds charging
17 between \$25 and \$100 for one-time fees and almost 30% charging
18 between \$50 and \$75, and
- 19 • Monthly opt-out charges ranged from \$0 to \$45 with 75% charging
20 between \$5 and \$20 a month and over 40% charging between \$10 and
21 \$15 a month.

Chart 1: Utilities with One-Time Opt-Out Fees¹



Chart 2: Utilities with Monthly Opt-Out Charges²



¹ Further details regarding the application of the upfront/one-time fees charged by other utilities are provided in Exhibit CSF-1.

² Further details regarding the application of monthly fees charged by other utilities are provided in Exhibit CSF-1.

1 **Q. NorthWestern is proposing to charge customers who opt out from**
2 **installation of advanced meters. Why is it reasonable to charge**
3 **these customers when customers who do not opt out do not pay for**
4 **their meters?**

5 **A.** NorthWestern began deployment of its Montana Meter Upgrade Project in
6 April 2021, which involved the replacement of Automated Meter Reading
7 (“AMR”) equipment. AMR was previously the standard meter for
8 NorthWestern customers, but nearing end-of-asset-life issues prompted
9 NorthWestern to transition to the current industry standard of using AMI
10 meters. Upon completion of the Montana Meter Upgrade Project, AMI will
11 be the new standard of service for NorthWestern customers. With AMI as
12 the new standard of service, providing customers with the option to opt out
13 means that NorthWestern will need to maintain an inventory of non-AMI
14 meters available for opt-out customers as well as customer service
15 employees to provide the service needed to support opt-out customers,
16 such as maintenance, back office staff, and metering professionals. This
17 results in costs incurred specific to providing the optional services being
18 requested by opt-out customers. NorthWestern believes it is appropriate
19 to charge customers to reflect the additional costs associated with
20 maintaining this non-standard option.

21

1 **Q. If the Commission decides that customers who opt out should not**
2 **have a corresponding fee, who pays for the non-communicating**
3 **meters and related services?**

4 **A.** If the Commission does not approve NorthWestern's proposal to charge
5 opt-out customers for the non-standard meters, then the costs of these
6 meters and the related services would be paid for by all customers in
7 order to ensure the option is available to opt-out customers.

8

9 **Q. Do you believe that charging these costs directly to the customers**
10 **who opt out aligns with general ratemaking principles?**

11 **A.** Yes, NorthWestern's proposal aligns with general ratemaking principles,
12 specifically that prices should reflect cost of service, by proposing to
13 charge opt-out customers for the incremental costs of providing the
14 optional service.

15

16 **Q. Why is it reasonable to propose charges that reflect an amount less**
17 **than NorthWestern's estimated costs?**

18 **A.** NorthWestern proposes to strike a balance between the actual costs it
19 estimates will be incurred to serve the customers who want to opt out of
20 the AMI and customer acceptance as measured by opt-out fees and
21 charges approved and implemented in other jurisdictions. The
22 Commission could choose to allocate more of the costs to those

1 customers than the modest meter-reading fees proposed by
2 NorthWestern.

3

4 **Opt-Out Charges of Other Utilities**

5 **Q. Are you aware of whether other public utilities who have advanced**
6 **meters charge customers who opt out?**

7 **A.** Yes. NorthWestern reviewed the opt-out fees and charges of 56 utilities in
8 different jurisdictions with details of that review provided in Exhibit CSF-1.

9

10 **Q. Based on your knowledge, do you believe that it is common for**
11 **public utilities to charge a one-time fee for the costs of an alternative**
12 **meter?**

13 **A.** Based on the information provided above, it is common with 89%, or 50 of
14 the 56 utilities, charging a one-time opt-out fee.

15

16 **Q. Based on your knowledge, do you believe that it is common for**
17 **public utilities to charge a monthly fee for the costs associated with**
18 **reading the alternative meter?**

19 **A.** Based on the information provided above, it is common with almost 95%,
20 or 53 of the 56 utilities, charging a monthly opt-out fee.

21

22 **Q. Are NorthWestern's proposed opt-out charges reasonable when**
23 **compared to the other public utilities listed in Exhibit CSF-1?**

1 **A.** Yes. The opt-out charges proposed by NorthWestern of a One-Time Opt-
2 Out Fee of \$75 and an On-going Monthly Charge of \$15 a month fall well
3 within the range of the other public utilities reviewed as reflected in Charts
4 1 and 2. As noted previously, almost 30% of the utilities surveyed charge
5 a one-time fee between \$50 and \$75 and over 40% charge monthly fees
6 between \$10 and \$15.

7
8 **Q.** Does this conclude your testimony?

9 **A.** Yes, it does.

VERIFICATION

This Prefiled Direct Testimony of Cynthia S. Fang is true and accurate to the best of my knowledge, information, and belief.

/s/ Cynthia S. Fang
Cynthia S. Fang

State AMI Opt-Out Requirements and Associated Fees – Sept 2021

State	Utility Name	Upfront/One-time Fees	Monthly Fees
Arizona	Arizona Public Service Co	\$50	\$5 The fee is waived for customers who live in a remote location where wireless technology is not available or automated equipment cannot otherwise be used.
	Tucson Electric Power	\$43	\$26
Arkansas	Entergy	\$63.50	\$21.80
California	Pacific Power	\$75 (\$60 for CARE customers) If the smart meter was installed prior to the CPUC ruling, no one-time fee is charged – only the monthly meter reading fee.	\$20 (\$16 for CARE customers)
	Southern Cal Edison	\$75 (\$10 for income qualified)	\$10 (\$5 for income qualified) for 36 consecutive months
	Pacific Gas & Electric	\$75 (\$10 for income qualified)	\$10 (\$5 for income qualified) for 36 consecutive months
	San Diego Gas & Electric	\$75 (\$10 for income qualified)	\$10 (\$5 for income qualified) for 36 consecutive months
Florida	Duke Energy	\$96.34	\$15.60
	Tampa Electric Co.	\$96.27	\$20.64
	Florida Power and Light	\$89	\$13
Georgia	Georgia Power	\$0	\$19

State AMI Opt-Out Requirements and Associated Fees – Sept 2021

State	Utility Name	Upfront/One-time Fees	Monthly Fees
Illinois	Commonwealth Edison	\$63.95 (first meter) \$13.20 (each additional meter) After Jan 2022 \$65.93 (first meter) \$13.60 (each additional meter)	\$21.53 (first meter read) \$5 (each additional meter read)
	Ameren Illinois	\$70	\$20; \$24 (\$12 + \$12) both electric and natural gas
Iowa	Alliant Energy	\$0	\$4.06 electric; \$2.80 natural gas
Indiana	Duke Energy	\$75 Fee will be waived if customer notifies DE of opt out within 21 days after receiving AMI installation notification	\$17.50
	AES Indiana	\$48	\$20 (per meter)
	Indiana Michigan Power	\$80.30	\$16.48
	Northern Indiana Public Service Co	\$0	\$15
Kansas	Liberty Utilities	\$150	\$45, plus additional \$10 for each additional
Kentucky	Duke Energy	\$100	\$25
	Louisville Gas & Electric	\$35 Fee will be waived if non-AMI request is made prior to AMI installation	\$12
	Kentucky Utilities	\$39 Fee will be waived if non-AMI request is made prior to AMI installation	\$15

State AMI Opt-Out Requirements and Associated Fees – Sept 2021

State	Utility Name	Upfront/One-time Fees	Monthly Fees
Louisiana	Entergy LA	\$0	\$14.35
Maryland	Pepco Order No. 86200	\$75.00 (billed at \$25.00 per month, for three months)	\$14
	Baltimore Gas & Electric	\$75, which will be billed in three equal monthly installments	\$5.50
Massachusetts	National Grid	\$26	\$11
Michigan	Indiana Michigan Power Co	\$80.30	\$9.75
	DTE Energy	\$67.20	\$9.80
	Consumers Energy	\$69.39 (if notice given before AMI meter install) \$123.91 (if opt out notice given after AMI meter install)	\$3
	Upper Peninsula Power Co	\$62.25	\$14.26
Missouri	Liberty Utilities	\$150	\$45, plus additional \$10 for each additional
New Jersey	Public Service Electric & Gas	\$45	\$12
New York	Consolidated Edison	\$104.74 electric; \$93.81 natural gas	\$9.50
	Orange and Rockland	\$45 electric; \$55 natural gas; \$90 both electric and natural gas	\$10 for one service; \$15 for both electric and natural gas
	NY State Electric & Gas Corp	\$47.63 electric; \$65.51 both electric and natural gas	\$13.47
	Central Hudson Gas & Electric	\$49 electric; \$89 natural gas; \$114 both electric and natural gas	\$0
Nevada	NV Energy (Northern Territory) Residential Tariff Non-Res Tariff	\$52.44 (Residential) \$82.36 (Non-Res)	\$8.72 \$9.18 (Non-Res)
	NV Energy (Southern Territory) Residential Tariff Non-Res Tariff	\$52.86 (Residential) \$61.18; \$73.58 (Non-Res)	\$8.82 (Residential) \$9.07; \$9.05 (Non-Res)

State AMI Opt-Out Requirements and Associated Fees – Sept 2021

State	Utility Name	Upfront/One-time Fees	Monthly Fees
North Carolina	Duke Energy Progress	\$170 Can be paid in installments over 6 months. The fees can be waived altogether through a medical fee waiver process.	\$14.75 The fees can be waived altogether through a medical fee waiver process.
	Duke Energy	\$150 Can be paid in installments over 6 months. The fees can be waived altogether through a medical fee waiver process.	\$11.75 The fees can be waived altogether through a medical fee waiver process.
Ohio PUCO's findings and order in Case No. 20-385-EL-ATA	First Energy OH Companies	\$41.72 If a customer opts out before the smart meter is installed, the upfront charge does not apply.	\$28.29
	Duke Energy	\$100	\$30
	AEP Ohio	\$43	\$24
	AES Ohio	\$0	\$0
Oklahoma	Oklahoma Gas and Electric Company	\$115	\$15.66
	Public Service Co of Oklahoma	\$53.55	\$13.21
	Liberty Utilities	\$150	\$15, plus \$3.33 per additional manually read meter
Oregon	Pacific Power	\$169	\$10 As an alternative, you may enroll in our Triannual Read Equal Pay program. Under the Triannual Read Equal Pay program the meter reading fee is \$3 per month and the number of manual meter reads are reduced from 12 times per year to three times per year. For the nine months of the year when the meter

State AMI Opt-Out Requirements and Associated Fees – Sept 2021

			is not manually read, customers will get an estimated bill that is based on a historical average of their previous bills. All residential customers with non-standard meters are eligible to participate with the exception of residential customers with net meters, time of use meters or demand registers. These meters do not qualify because regular meter reads are needed in those circumstances to bill customers accurately.
South Carolina	Duke Energy Progress	\$170	\$14.75
	Duke Energy	\$150	\$11.75
	Dominion Energy	\$168	\$15
Rhode Island	National Grid	\$27	\$13
Vermont	Green Mountain Power	\$0	\$0
Washington	Puget Sound Energy	\$90	\$15
	Avista	\$75	\$10