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September 20, 2024

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

RE: In the Matter of Otter Tail Power Company's Proposal for a Residential Time of Day Pilot Plan
Docket No. E017/M-23-261
Amended Filing

Dear Mr. Seuffert:

Otter Tail Power Company (Otter Tail) hereby submits to the Minnesota Public Utilities Commission (Commission) its Residential Time of Day Pilot Plan Amended Filing in the above-referenced matter.

We have electronically filed this document with the Commission and copies have been served on all parties on the attached service list. A Certificate of Service is also enclosed.

Please contact me at 218-739-8301 or awang@otpco.com if you have any questions regarding this filing.

Sincerely,

/s/ ANDY WANG
Andy Wang
Pricing Analyst
Regulatory Economics

lcd
Enclosures
By electronic filing
c: Service List

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Otter Tail Power Company's Proposal for a Residential Time of Day Pilot Plan	**Docket No. E017/M-23-261** **SUMMARY OF FILING**

As a follow up to Docket No. E017/M-23-261, where Otter Tail Power Company outlined the deployment plan for the Residential Time of Day Pilot, Otter Tail is filing this amended filing proposal with the Minnesota Public Utilities Commission requesting the following:

1. Approval of its proposed Residential Time of Day Pilot Plan.
2. Approval of its proposed Residential Time of Day Service Pilot Section 9.04 Rate Schedule.
3. Approval of its proposed administrative and clarifying language updates necessary for the implementation of the proposed TOD Pilot to the following rate schedules.
    a. Index
    b. 12.00 Purchase Power Riders – Availability Matrix
    c. 13.00 Mandatory Riders – Applicability Matrix
    d. 13.01 Energy Adjustment Rider
    e. 13.02 Conservation Improvement Project Rider
    f. 13.07 Uplift Program Rider
    g. 13.11 Electric Utility Infrastructure Cost Recovery Rider
    h. 14.00 Voluntary Riders – Availability Matrix
4. Approve the Company's proposal to recover the Company's investments and expenses through the pilot project in its next rate case(s).

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Otter Tail Power Company's Proposal for a Residential Time of Day Pilot Plan	**Docket No. E017/M-23-261** **AMENDED FILING**

I. INTRODUCTION

Otter Tail Power Company (Otter Tail or Company) submits this Petition to the Minnesota Public Utilities Commission (Commission) for approval of the Company's proposed Residential Time of Day Pilot (TOD Pilot or Pilot). This amended filing is a follow up to Docket No. E017/M-23-261, where Otter Tail outlined the deployment plan for the TOD Pilot in which it will be launched in 2025.

Otter Tail is requesting the following:

1. Approval of its proposed Residential Time of Day Pilot Plan.
2. Approval of its proposed Residential Time of Day Service – Pilot, Section 9.04 Rate Schedule.
3. Approval of its proposed administrative and clarifying language updates necessary for the implementation of the proposed TOD Pilot to the following rate schedules:
    a. Index
    b. 12.00 Purchase Power Riders – Availability Matrix
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    g. 13.11 Electric Utility Infrastructure Cost Recovery Rider
    h. 14.00 Voluntary Riders – Availability Matrix
4. Approve the Company's proposal to recover the Company's investments and expenses through the pilot project in its next rate case(s).

II. SUMMARY OF FILING

Pursuant to Minn. Rules 7829.1300, subp. 1, a one-paragraph summary of the filing accompanies this Petition.

III. GENERAL FILING INFORMATION

Pursuant to Minn. Rules 7829.1300, subp. 3, the following information is provided.

A. Name, address, and telephone number of utility

(Minn. Rules 7829.1300, subp. 3(A))

Otter Tail Power Company
215 South Cascade Street
Fergus Falls, Minnesota 56538-0496
(218) 739-8200

B. Name, address, and telephone number of utility attorney

(Minn. Rules 7829.1300, subp. 3(B))

Cary Stephenson
Associate General Counsel
Otter Tail Power Company
215 South Cascade Street
Fergus Falls, Minnesota 56538-0496
(218) 739-8956

C. Date of filing and proposed effective date of rates

(Minn. Rules 7829.1300, subp. 3(C))

The date of this filing is September 20, 2024. Otter Tail requests that this proposed TOD Pilot become effective February 1, 2025, or on the first day of the month following Commission approval, should its decision be thereafter.

D. Statutes controlling schedule for processing the filing

(Minn. Rules 7829.1300, subp. 3(D))

Minn. Stat. § 216B.16, subd. 1 permits a utility to implement a proposed rate change after giving the Commission a 60-day notice. This proposed filing creates a new tariff, modifies existing tariffs, and requests support of recovery of a portion of the project costs, and falls under the definition of a "miscellaneous tariff filing" under Minn. Rules 7829.0100, subp. 11 with Minn. Rules 7829.1400 permitting initial comments within 30 days of filing and replies no more than 10 days thereafter.

E. Title of utility employee responsible for filing

(Minn. Rules 7829.1300, subp. 3(E))

Andy Wang
Pricing Analyst
Regulatory Economics
Otter Tail Power Company
215 South Cascade Street
Fergus Falls, Minnesota 56538-0496
(218) 739-8301

F. Impact on Rates

(Minn. Rules 7829.1300, subp. 3(F))

For the proposed TOD Pilot rate schedules where changes are requested in this filing, Otter Tail does not anticipate any net revenue effect, after accounting for incremental costs, during the Pilot period. This is because the proposed TOD Pilot rate is based on the residential revenue requirements approved in the 2020 Minnesota rate case[1]. The Pilot will be limited to 300 participants who voluntarily opt into the program. The estimated future rate impacts from these costs are explained in this filing and will depend on factors such as the timing of future proceedings, the level of utilization during the pilot period, and other variables. Through this pilot, Otter Tail aims to assess the utilization levels and revenues generated by these initiatives.

G. Service List

(Minn. Rules 7829.0700)

Otter Tail requests that the following persons be placed on the Commission's official service list for this matter and that any trade secret comments, requests, or information be provided to the following on behalf of Otter Tail:

Andy Wang
Pricing Analyst
Regulatory Economics
Otter Tail Power Company
215 South Cascade Street
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awang@otpco.com

Cary Stephenson
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cstephenson@otpco.com

[1] See Minnesota eDocket Docket NO. E017/GR-20-719.

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Regulatory Affairs & Compliance
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Regulatory Filing Coordinators
Otter Tail Power Company
215 South Cascade Street
Fergus Falls, MN 56538-0496
regulatory_filing_coordinators@otpco.com

H. Service on other parties

(Minn. Rules 7829.1300, subp. 2; Minn. Rules 7829.0600)

Pursuant to Minn. Rule 7829.1300, subp. 2, Otter Tail served a copy of this Petition on the Division of Energy Resources of the Department of Commerce and the Residential Utilities Division of the Office of the Attorney General. A summary of the filing prepared in accordance with Minn. Rule 7829.1300, subp. 1 was served on all parties on Otter Tail's general service list.

IV. DESCRIPTION AND PURPOSE OF FILING

A. Background

This petition provides an update on Otter Tail's proposed Residential Time of Day Pilot (TOD Pilot or Pilot) deployment plan, highlighting the changes and adjustments made following consultations with stakeholders.

Topics covered in this filing:

- Overview of Otter Tail's Residential Time of Day Stakeholder Group
- Updates to Customer Technology
- Goals of the Pilot
- Pilot Structure
- Pilot Roadmap
- Otter Tail's Proposed Rate Schedule
- Use of Marginal Cost in Rate Design
- Time-of-Day Periods
- Rate Schedule Terms & Conditions
- Sample Size Calculation
- Pilot Participant Selection Process
- Pilot Materials & Communication
- Evaluation of Pilot

- Reporting Requirements
- Recovery of Costs

The next section will detail Otter Tail's approach to the Residential Time of Day Stakeholder Group (Stakeholder Group).

B. Overview of Otter Tail's Residential Time of Day Stakeholder Group

The Commission's order on November 14, 2023, stated that Otter Tail take the following actions:

1. Ensure that all known interested stakeholders, including but not limited to those on the 20-331 and rate case (20-719) service lists, are informed of Otter Tail's stakeholder process.
2. Conduct a minimum of one stakeholder meeting, with additional meetings to be held upon request by any stakeholder.
3. Present an overview of the original pilot proposed in Docket 20-331 during the first meeting, including a summary of modifications suggested by parties and updates on whether these modifications have been incorporated into the current proposal.

Actions taken by Otter Tail in response to the Commission's Orders:

- Point 1: In April 2024, Otter Tail held two stakeholder meetings to gather valuable insights from participants through May 2024. The Pilot proposal presented in this petition reflects the input received from these stakeholders.[2]
- Point 2: The Company invited a diverse group of stakeholders, including representatives from the Minnesota Department of Commerce, the Minnesota Public Utilities Commission, the Minnesota Citizens Utility Board, and residential customers who are members of the customer feedback platform (Otter Voice). An open invitation was extended for all recipients to forward it to others interested in joining the Stakeholder Group.
- Point 3: Otter Tail provided a complete overview of the original pilot proposed in Docket 20-331 during the first meeting. Both meetings were held at the Otter Tail campus in Fergus Falls, Minnesota, with an option for remote participation via Microsoft Teams. The first meeting lasted approximately three hours, while the second lasted about two hours. Meeting recaps and questions were reviewed at the beginning of each session to accommodate new participants.

[2] See Attachment 1 for list of stakeholder invitees, participants and presentation materials.

Summary of the Two Meetings:

- April 16, 2024 - Meeting 1: Introduction of members, review of previous filings, presentation of TOD Pilot rate technologies available to customers, and discussion on rate design concepts.
- April 23, 2024 - Meeting 2: Recap of the first meeting, discussion of questions submitted via email, presentation of various rate proposal options, and gathering of residential customer preferences.

The next section will discuss the current developments in technologies related to the TOD Pilot.

C. Updates to Customer Technology

As of this filing, Otter Tail has replaced 89 percent (156,000 units) of its legacy meter fleet with Automated Metering Infrastructure (AMI) and expects to complete the replacement by the end Q1 2025.

The billing structure will not be affected by the AMI installations and will continue in accordance with Section 4.07 of Otter Tail's General Rules and Regulations. TOD Pilot rates will be calculated based on interval data collected by the meters rather than on register readings. The Customer Information System (CIS) will continue to process a single read request for each meter's billing period, sending this request to the Meter Data Management System (MDMS) to compute billing determinants from the last billed date to the current read date. If this period crosses a seasonal or other proration period, Otter Tail will continue to bill accordingly.

The full installation of AMI will also enable the addition of interval usage tracking through the Company's customer online portal (MyMeter). Launched at the end of Q3 2023, MyMeter is available to all customers who sign up for an online account. Currently, customers can view their total monthly energy usage through the MyMeter application (Image1). Otter Tail continues to work on enhancing this feature to display energy usage data for various time intervals within a day, such as 15 minutes, 30 minutes, hourly, daily, or weekly (Image2). This enhancement will be particularly valuable for future TOD Pilot participants, helping them understand their energy patterns and adjust their usage to take advantage of lower-priced periods under the TOD Pilot rate.

Image 1
Monthly Customer Energy Usage on MyMeter

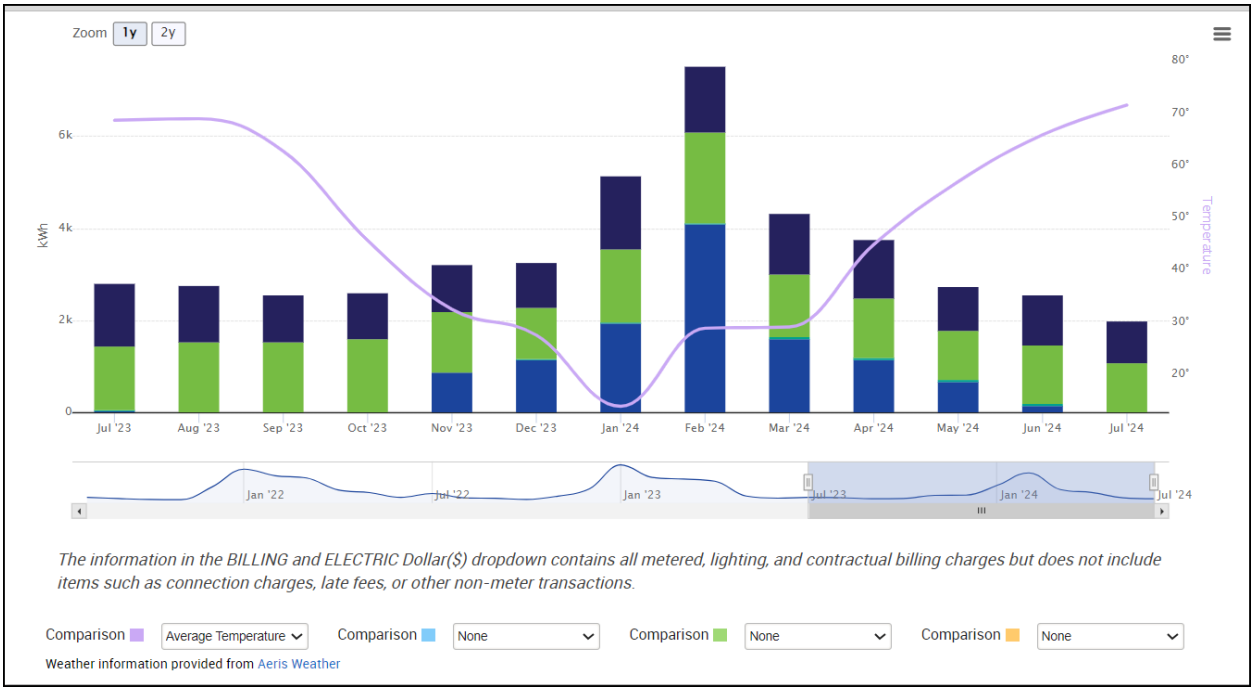


Image 2
Demonstration of Interval Customer Energy Usage on MyMeter

V. INTRODUCTION TO OTTER TAIL'S RESIDENTIAL TIME OF DAY PILOT

A. Goals of the Pilot

Otter Tail has always prided itself on listening to customers and adapting its rates to better meet their needs. The TOD Pilot is a continuation of that approach, and the Company aims to achieve several key goals through this initiative:

- **Learn from and Respond to Customers:** The TOD Pilot rate empowers customers to manage their energy bills by adjusting their consumption in response to pricing changes. Otter Tail wants to understand how customers react to these different pricing periods. If customers successfully shift their energy use to save money, we aim to learn which periods they choose and how they achieve these savings. Conversely, if some customers do not adjust their behavior, this information is equally valuable. It will help determine whether these customers are still saving without changing their habits or if the incentives to shift energy usage are insufficient. The insights and data gathered during this pilot will be critical in shaping more customer-centric and effective rate designs for the TOD Pilot rate.
- **Assess System Costs and Revenues:** The Pilot will also provide insights into the broader impact on the residential class. It will help assess how time-shifting energy use might influence revenue collections and affect the cost of service. Otter Tail intends to thoroughly examine the potential benefits and drawbacks for both customers and the Company before considering the expansion of the TOD Pilot rate to the entire residential class.

B. Pilot Structure

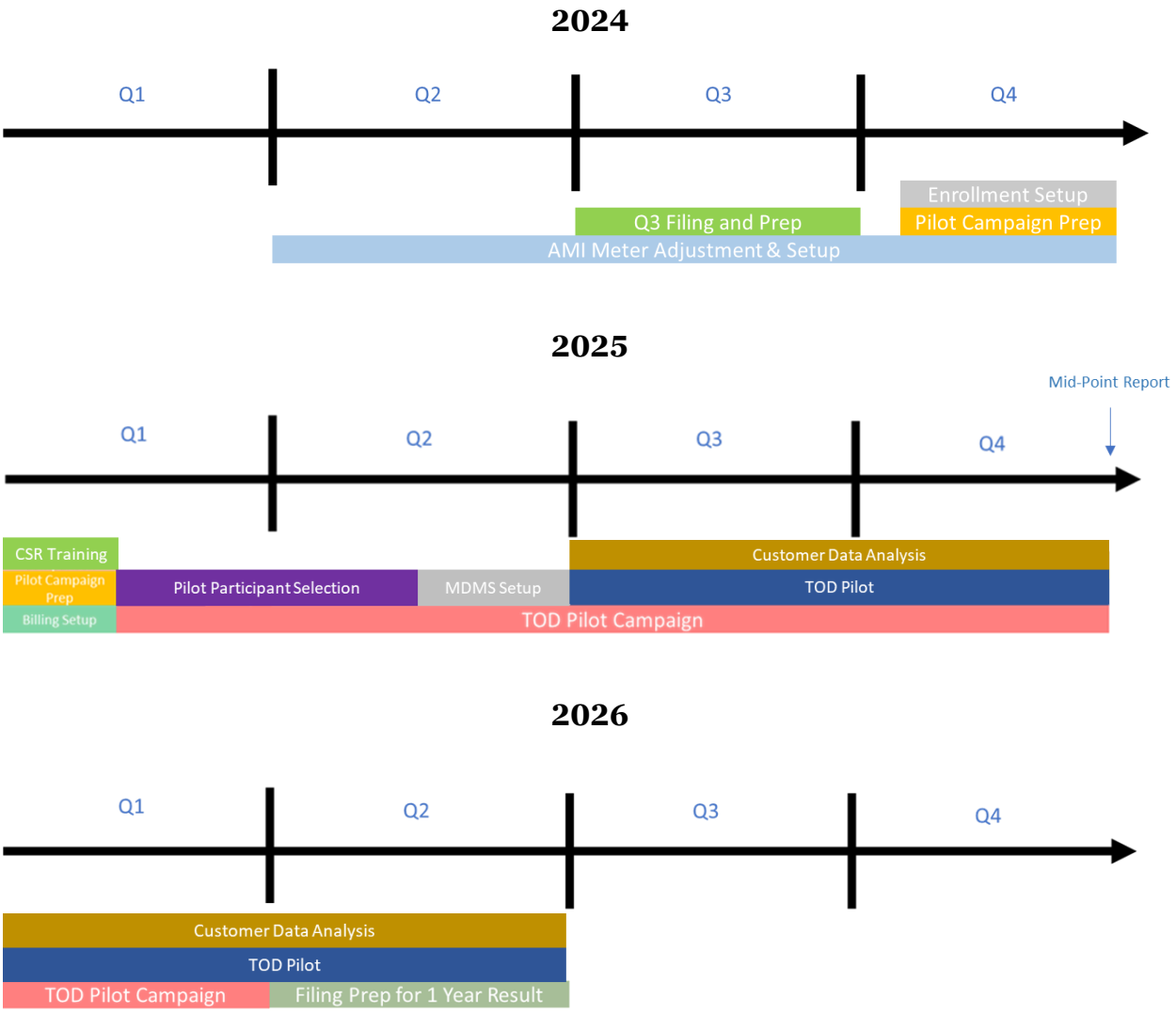
The Pilot includes several key features, some of which are consistent with the Otter Tail's previous filings, while others have been updated based on input from stakeholder groups, consultants, and suggestions from the Department of Commerce:

- **Opt-in Pilot Approach:** By allowing customers to voluntarily participate in the pilot, Otter Tail ensures that their actions are more meaningful and measurable for comparison and analysis. This approach aligns with the goal of avoiding situations where customers feel compelled to participate without their consent.
- **Sample Size:** Otter Tail has increased the sample size to aim for 300 participants, with a minimum of 270, ensuring a statistically robust sample while controlling costs.
- **Pilot Participants:** The pilot will include customers currently on the Minnesota Residential Service rate or the Residential Demand Control rate.

- **Time Periods:** The pilot will feature three distinct time periods for each of the two seasons (Summer and Winter). This structure provides a balance between offering customers the flexibility to respond to pricing signals and keeping the rate structure simple and easy to follow.
- **Revenue Neutral Rate Design:** The Pilot rates are designed to recover the same amount of revenue as a randomly sampled group of customers on the Residential Service rate. Ensuring that the rates are revenue-neutral is essential for maintaining revenue adequacy and stability.

C. Pilot Road Map

Otter Tail is seeking approval for the Pilot's plans, rate schedules, implementation, and recovery according to the following timeline:



VI. OTTER TAIL'S PROPOSED RESIDENTIAL TIME OF DAY PILOT RATE SCHEDULE

A. Otter Tail's Proposed Rate Schedule

Otter Tail's proposed Residential TOD Pilot rate is based on the revenue requirements approved during the 2020 Minnesota rate case[3], 2023 Load Research Data, and both the 2023 and 2024 Marginal Cost Studies. The Pilot includes three charging periods (on-peak, mid-peak, and off-peak) for two seasons: summer and winter. The rate is designed to be revenue-neutral to the Residential Service Rate. A detailed rate schedule can be found in Attachment 2, with the proposed rates summarized in Table 1.

Table 1
Proposed Minnesota Residential Time of Day Rate – Pilot

RESIDENTIAL TIME OF DAY SERVICE - PILOT		
Customer Charge per Month:	$17.07	
Monthly Minimum Bill:	Customer + Facilities Charge	
Facilities Charge per Month:	$3.50	
Energy Charge per kWh:	Summer	Winter
On-Peak	9.329 ¢/kWh	12.412 ¢/kWh
Mid-Peak	5.656 ¢/kWh	6.086 ¢/kWh
Off-Peak	2.924 ¢/kWh	3.897 ¢/kWh

This proposal is based on customer feedback gathered during a stakeholder meeting in April 2024. Customers expressed a preference for a higher fixed charge and a lower energy price, while maintaining a price ratio close to 1:4, as suggested by the Department of Energy in a 2016 report[4]. The proposed TOD Pilot rate reflects these preferences. During the stakeholder meeting, customers supported using the full marginal cost of the customer charge ($18.90) and a $3.50 facilities charge, rather than distributing all costs across the energy charge. However, since that meeting, Otter Tail received updated information and recognized that using the full marginal cost might be unfair, given that the Electric Utility Infrastructure

[3] See Minnesota eDocket Docket NO. E017/GR-20-719.
[4] See U.S. DOE Smart Grid Investment Grant Program, Interim Report on Consumer Acceptance, Retention, and response to Time-based rates from the Consumer Behavior Studies (energy.gov)

Cost Recovery Rider (EUIC) already partially recovers the costs of AMI meter upgrades. As a result, the customer charge is now set lower than the amount proposed during the stakeholder meeting to reflect the costs already being collected in the EUIC.

B. Use of Marginal Cost in Rate Design

Otter Tail designs rates using a combination of marginal and embedded costs. The use of marginal cost, as shown in Table 2, reflects the costs per unit of energy and encourages customers to make more economically efficient decisions regarding energy use. By aligning pricing periods with actual costs, customers will have to consider whether their energy usage provides value equal to or greater than the cost of supply. Rates based on marginal costs also help reduce cross-subsidies, as they better align costs with rates when they are both seasonal and time-differentiated, thereby aiding in matching utility costs with revenues.

Table 2
Residential Time of Day Rate – Marginal Costs

Marginal Cost	Customer Charge		Summer	Winter	Energy Allocations Summer	Energy Allocations Winter
All kWh	$ 18.90	Peak	$ 0.132	$ 0.176	23.3%	9.0%
	Facility Charge	Mid	$ 0.080	$ 0.086	19.7%	36.7%
	$ 22.49	Off	$ 0.041	$ 0.055	57.0%	54.3%

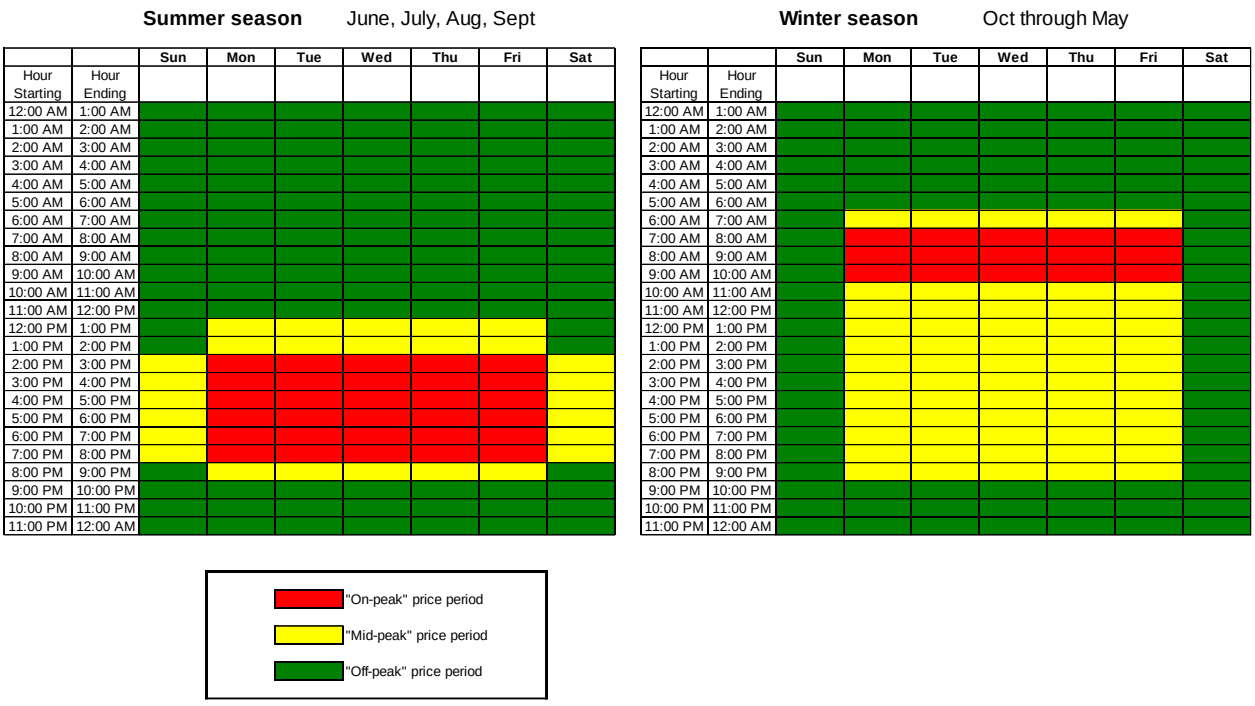
The new customer charge reflects the marginal cost of the Residential Service rate before the widespread implementation of AMI meters in 2024. The charge is based on the 2023 marginal costs of the Residential Service rate and is adjusted by the Residential Demand Control (RDC)'s EUIC rider to account for the additional programming costs of the TOD Pilot rates. While this approach may not fully cover the exact costs of the Pilot, it provides a close estimate to help recover costs until the company's next Minnesota rate case.

C. Time-of-Day Periods

The TOD Pilot includes two seasons: Summer (June to September) and Winter (October to May), with three time-of-day periods for each season. These periods were developed in collaboration with Charles River Associates (CRA), who performed a statistical analysis of updated hourly marginal costs (covering energy, generation capacity, transmission, and distribution substation) to determine the most appropriate seasonal and time-of-day groupings. The objective was to optimize the coefficient of determination (indicating how accurately the TOD

periods reflect actual energy costs) while maintaining simplicity for customers. The proposed time designations for the TOD Pilot Rate are illustrated in Image 3.

Image 3
Proposed Residential Time of Day Pilot – Price Period Designations



Without such a statistical analysis, creating seasons and pricing periods could become arbitrary and less effective. Accurate pricing is crucial for encouraging energy use during cost-efficient periods. The designated time-of-day periods are designed to balance the accuracy of cost representation with customer comprehensibility.

D. Rate Schedule Terms & Conditions

The Application of Schedule is designed to describe who may utilize the schedule and if there are any other limitations of service. Because this is a pilot, additional customer limitations are placed in order to be consistent with the structure of the pilot. Per the proposed rate schedule (See Attachment 2), below is the proposed Application of Schedule language:

> *This schedule is only applicable to a maximum of 300 single-metered individual Residential Service Customers, served under Section 9.01 (Rate Code M101) and 9.02 (Rate Code M241), Residential Service and Residential Demand Control, during the*

pilot evaluation period. Voluntary Rate Riders are not allowed under this rate schedule, except for Section 14.09.

The limitations on customers, meter-type, and other voluntary riders (e.g. a separately metered-water heating service) are designed to simplify the pilot structure such that customers energy-use decisions are under one rate. Only the Voluntary Renewable Energy Rider (Section 14.09) is allowed as its impact on customer energy decisions is not material and allows for customers select levels of renewable energy.

The TOD Pilot Rules set forth customer and company expectations during the pilot. Otter Tail's Pilot is voluntary (upon being randomly selected) but requires a commitment of at least 12 months. This commitment is important for two reasons. First, customer studies require consistent participation for meaningful results. Secondly, this commitment to remain on the rate for a minimum of 12 months is consistent with Otter Tail's General Rules and Regulations, Section 1.02 Application of Service shown below:

The Customer is required to take service under the selected rate(s) for a minimum of one year, unless the Customer desires to change its service to any rate offering that is newly approved within the one-year period and for which the Customer qualifies, or it is determined that the Customer does not qualify for service under the current selected rate(s). If the Customer changes service to a different rate, the Customer shall not be permitted to revert to the originally applicable rate for a period of one year, unless it is determined that the Customer does not qualify for service under the current rate(s). The Customer shall provide the Company at least 45 days prior notice in the event of any requested change.

VII. PILOT PARTICIPANT SELECTION & ENGAGEMENT

A. Sample Size Calculation

The Company determined the sample size n=270 using the equations below, where N represents the population size. The population includes all Residential Service rate customers and Residential Demand Control (RDC) customers, totaling approximately 50,000. E is the margin of error, set at 5 percent. r represents the fraction of responses sought, assumed to be a 50 percent response distribution since the survey has binary answers (Yes or No). Z(c/100) is the critical value for the confidence level c. With a 90 percent confidence level, the ideal sample size was calculated to be 270. However, Otter Tail aims to exceed expectations by targeting a sample size of 300, which would achieve a margin of error of 4.74 percent. If the

target of 300 is not reached, a sample size of 270 will still be acceptable, maintaining a margin of error within 5 percent.

$$x = Z\left(\frac{c}{100}\right)^2 \times r \times (100 - r)$$
$$\mathrm{n} = \mathrm{Nx}/\left((\mathrm{N}-1)\mathrm{E}^2 + \mathrm{x}\right)$$
$$\mathrm{E} = \mathrm{Sqrt}[(\mathrm{N}-\mathrm{n})\mathrm{x}/\mathrm{n}(\mathrm{N}-1)]$$

B. Pilot Participant Selection Process

Otter Tail will use a random sampling approach to select customers who opt into the TOD Pilot. The company will initially invite participants through its online customer portal, which currently has around 15,000 Minnesota users. From this group, 300 pilot participants will be randomly selected. If there are not enough participants from the initial selection, Otter Tail will expand the selection process by randomly choosing 500 additional customers and sending opt-in invitations via mail. This process will be repeated until 300 participants are confirmed. This approach is designed to minimize pilot costs while maintaining statistical validity.

To be eligible for the pilot, customers must meet the following criteria:

- Be Minnesota customers.
- Be current customers on the Residential Service rate (Rate Code M101) or the RDC Rate (Rate Code M241) with a single meter and no additional voluntary riders, except for the Voluntary Renewable Energy Rider.
- The customer must not be using the service for seasonal housing, as the data will be less valuable if they only reside at the location for a few months per year.

Additionally, pilot participants must:

- Have or be willing to create a customer portal account to access "My Meter" for tracking energy usage and adjusting to personal needs.
- Fully commit to the TOD Pilot, meaning they will be on the TOD Pilot rate exclusively, without additional voluntary riders or other rates, other than the Voluntary Renewable Energy Rider.
- Commit to the TOD Pilot rate for at least one year.

C. Pilot Recruitment Engagement Materials & Communication

During the application period, Otter Tail will provide rate information in all Pilot invitations, both online and via physical mail. These materials will explain how the TOD Pilot rate works, including potential cost savings and opportunities for energy conservation by shifting energy use to different times of the day. The invitations will detail the specific time blocks and associated rate charges. Otter

Tail has also prepared a limited number of free energy audits as incentives, serving as a backup plan in case we do not initially reach the minimum sample size of 270.

D. Pilot Participant Engagement Materials & Communication

Once all 300 pilot participants are selected and confirmed, they will receive a welcome package. This package will include information on how to use "My Meter" to shift their energy load and save money. It will also provide the rate schedule and time blocks for both seasons, ensuring participants understand how the rate works and can make informed decisions. We plan to send additional materials throughout the pilot, such as reminders during seasonal changes to help participants stay informed about upcoming time block and rate changes.

Both the recruitment and participation materials are currently in the planning stages. Otter Tail plans to submit a supplemental filing in Q1 2025 to provide all parties involved with a clearer understanding of what customers can expect to receive.

VIII. EVALUATION OF PILOT

As discussed earlier, the two primary objectives of this pilot are to observe customer response and evaluate system costs and revenues. Below are the key metrics Otter Tail will be monitoring throughout the pilot:

- Monthly load allocation
- Yearly load allocation
- Monthly total and average energy usage for pilot participants
- Yearly total and average energy usage for pilot participants
- Monthly total and average bills for pilot participants
- Yearly total and average bills for pilot participants
- Total costs for additional marketing and potential system installations
- End-of-pilot customer satisfaction survey

By tracking these metrics, Otter Tail will be able to effectively measure customer behavior, system costs, revenue, and, most importantly, customer satisfaction. Any additional metrics that provide valuable insights during the pilot will be incorporated into future reports.

IX. REPORTING REQUIREMENTS

Here are the reports that Otter Tail aims to submit to the Department:

- **Monthly Dashboard Report**: This report will cover monthly load allocation changes and average bill changes compared to the previous month.

- **Mid-Pilot Status Report** (6 months into the pilot): This report will provide seasonal comparisons (covering 3 months of Summer and 3 months of Winter) and a status update.
- **1-Year Result Filing** (Q2 2026): A comprehensive assessment after one year, including results and feedback from pilot participants.

X. RECOVERY OF COSTS

Otter Tail proposes to create an account to track all costs approved in this filing. These costs will be recovered through a combination of future test year rate cases and existing Research & Development (R&D) funds from the Energy Conservation and Optimization (ECO) Rider. The pilot-related costs include:

1. O&M costs from Pilot recruitment and engagement Material.
2. Online portal enhancements, meter programming adjustments, and all other approved expenses.

Consistent with Otter Tail's proposed EV Pilot Programs[5], Otter Tail requests the Commission approve the capital costs to be allowed as utility distribution infrastructure and all expenses to be included in a pilot account. Otter Tail proposes to make this adjustment in a future test year. Table 3 describes the One-Year Estimated Budget for the TOD Pilot.

Table 3
Proposed Minnesota Residential Time of Day Rate – 1 Year Budget

Cost Category	A Future Rate Case Cost B - C	B Total Cost C + D + E	C ECO	D Capital	E O&M
Total Expenditures	$ 65,000	$ 125,000	$ 60,000	$ 10,000	$ 55,000
Pilot Execution					
- Online Portal Adjustments	$ 20,000	$ 20,000			$ 20,000
- Recruitment Material	$ 30,000	$ 30,000			$ 30,000
- Engagement Material	$ 5,000	$ 5,000			$ 5,000
Metering (AMI)					
- Metering Adjustments	$ 10,000	$ 10,000		$ 10,000	
Pilot Incentives					
- Typical Value of ECO Offerings	$ -	$ 30,000	$ 30,000		
- Energy Audits	$ -	$ 30,000	$ 30,000		

[5] See Minnesota eDocket Docket No. E-017/M-20-181.

XI. CUSTOMER NOTICE

Upon receiving Commission approval, in accordance with Minn. Rule 7820.3200, Otter Tail will deliver to each customer a bill insert implementation notice informing them of the approval of the rates schedules as amended. A sample of this notice is included at Attachment 3.

XII. CONCLUSION

Otter Tail's proposal seeks to learn from and respond to customers and assess system costs and revenues. Otter Tail believes it has taken into consideration input from the Stakeholder Group and assembled in this petition a TOD Pilot that will be meaningful and provide useful information on how to proceed. The Company looks forward to working with stakeholders in getting the plan approved and implemented. Otter Tail requests the MPUC to approve the following request items:

1. Approval of its proposed Residential Time of Day Pilot Plan,
2. Approval of its proposed Residential Time of Day Service - Pilot Section 9.04 Rate Schedule,
3. Approval of its proposed administrative and clarifying language updates necessary for the implementation of the proposed TOD Pilot to the following rate schedules:
    a. Index
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4. Approve the Company's proposal to recover the Company's investments and expenses through the pilot project in its next rate case(s).

Dated: September 20, 2024

Respectfully submitted,

OTTER TAIL POWER COMPANY

By: /s/ ANDY WANG

Andy Wang
Pricing Analyst
Regulatory Economics
Otter Tail Power Company
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Invitation list

Organization	Invitee
Minnesota Public Utilities Commission	Jacob Strauss
Minnesota Department of Commerce	Peter Teigland
Great Plains Institute	Trevor Drake
Citizens Utility Board Minnesota	Annie Levenson-Falk
Center for Energy and Environment	Audrey Partridge
Fresh Energy	Isabel Ricker
Otter Voice (customer feedback platform)	500 Minnesota Residential Customers

MN RESIDENTIAL TIME OF PILOT

Otter Tail Power Company

Stakeholder Group Meeting #1 April 16, 2024

WELCOME

This meeting is being recorded.

AGENDA

• Welcome & Overview	10:00AM – 10:40AM
• The Pilot	10:40AM – 11:00AM
• New Technologies	11:00AM – 11:30AM
• Lunch Break	11:30AM – 12:30PM
• Rate Design	12:30PM – 12:50PM
• Q&A and Conclusion	12:50PM – 1:20PM

OBJECTIVES

Communicate with stakeholders about the reasons behind the initial pause of the pilot plan.

Provide stakeholders with comprehensive details regarding the current OTP MN Residential TOD pilot.

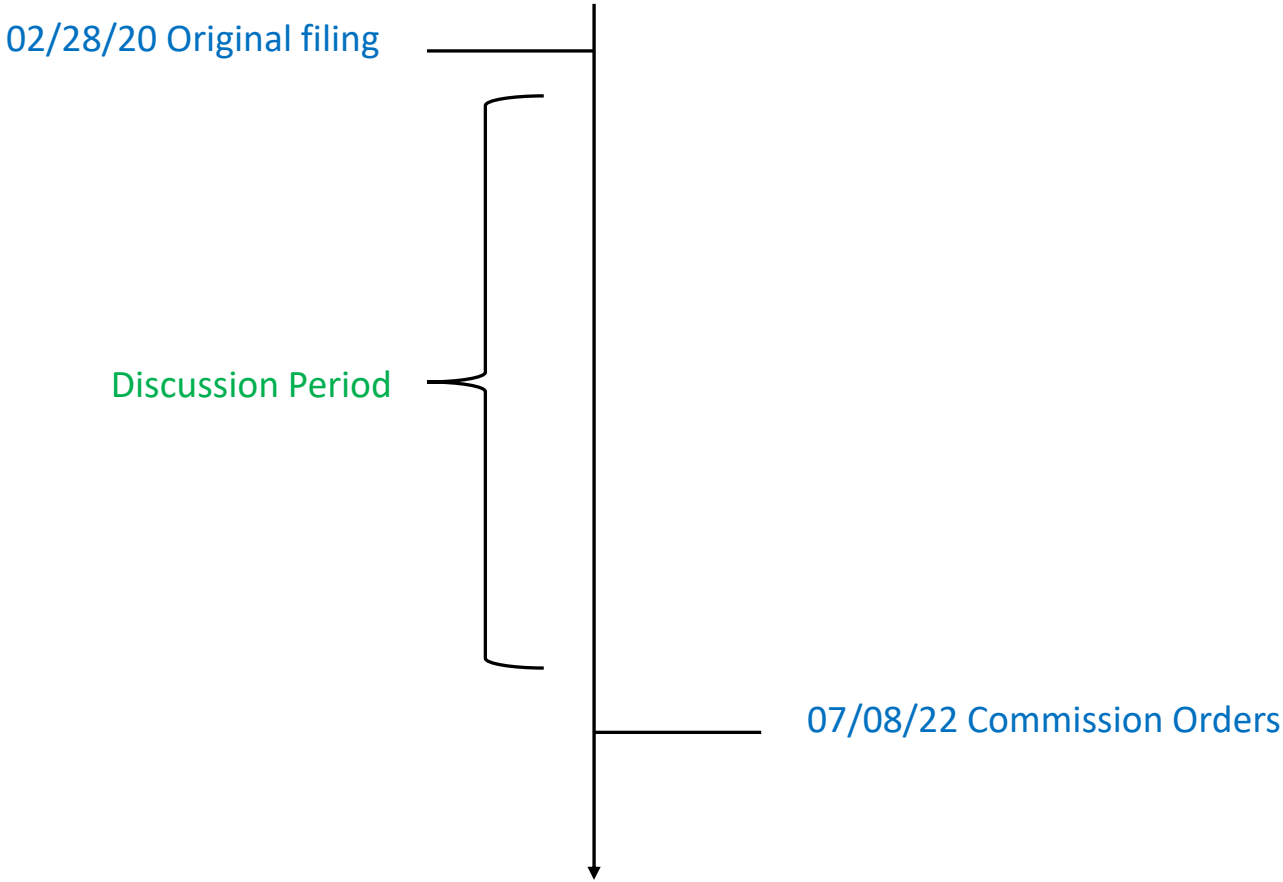
Solicit stakeholder input on the pilot design.

OVERVIEW

KEY TERMS

- TOD (Time of Day)
- AMI (Advanced Metering Infrastructure)
- Off-Peak
- ON-Peak
- Mid-Peak

RECAP


02/28/20 Original filing
Discussion Period
07/08/22 Commission Orders

DISCUSSION TOPICS ON PILOT PROPOSAL

- Sample Size
- Opt-in vs out
- Pilot Commitment period
- Rate Periods
- Rates Design

07/08/22 COMMISSION ORDERS

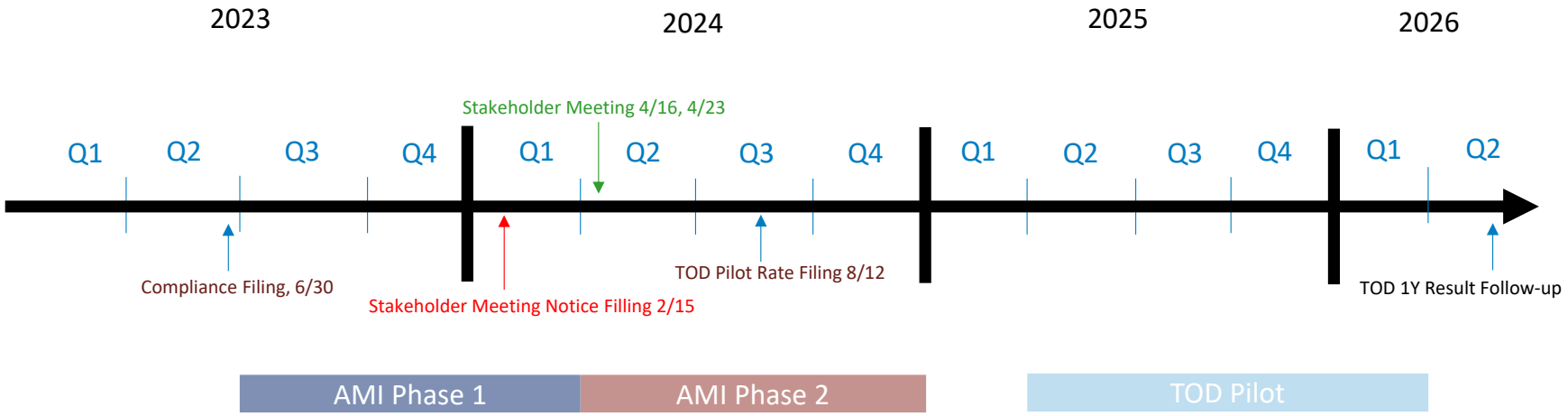
Reviewing pilot elements in the initial docket E-017/M-20-331 that are similar to this proposal.

Highlighting any new updates or technologies related to the AMI system as it progresses.

Outlining the deployment plan for the Residential TOD Pilot.

Describing how Otter Tail plans to involve other interested parties to the Q2 2023 Residential TOD proposal to better address areas of concern during the development.

CURRENT TIMELINE



COMPLIANCE FILLING 06/30/23

- Introduction of OTP's latest AMI system implementation.
- Retaining a sample size of 50 individuals.
- Keep the opt-in approach.
- Continue using three distinct time periods in a two-season model.

11/14/23 COMMISSION ORDERS

Required that Otter Tail's stakeholder process be noticed to all known interested stakeholders, including but not limited to its 20-331 and rate case (20-719) service lists to ensure all interested stakeholders are aware of the process.

Required that Otter Tail's stakeholder process include a minimum of one stakeholder meeting, with additional meetings if requested by any stakeholder.

Required that Otter Tail's stakeholder process include at the first meeting, an overview of the original pilot proposed in Docket 20-331, including a summary of the modifications filed in comments by parties and an update on whether the Company has included those modifications in its proposal to date.

Questions?

THE PILOT

Company Overview and Pilot Background

OUR VISION

Growth and success—for our company and the rural communities we serve.
We collaborate and prosper through responsible, resourceful action. We balance community, economic, and environmental commitments. **Always.**

OUR MISSION

To produce and deliver electricity as reliably, economically, and environmentally responsibly as possible to the balanced benefit of customers, shareholders, and employees and to improve the quality of life in the areas in which we do business.

AFFORDABILITY

Average rate comparisons

MINNESOTA

	State average	Otter Tail Power average
Residential	14.95	10.97
Commercial	12.32	10.18

OUR VALUES

Integrity.

We conduct business responsibly and honestly.

Safety.

We provide safe workplaces and require safe work practices.

Customer focus.

We provide reliable electricity and timely, courteous customer service.

Resourcefulness.

We draw on the ingenuity and expertise of various resources to create strategic, balanced plans.

Community.

We improve the quality of life in the areas in which we do business.

People.

We build respectful relationships and create an environment where all people can thrive.

TIME OF DAY TALKING POINTS

- Background on how we got here and why we are doing this.
- Introduction to Time Of Day concepts.
- Benefits to the customer and company.

WHY ARE WE DOING THIS

PUC Docket No. E017/GR-15-1033 (MN rate case 2016)

- Intervenor Fresh Energy inquired if Otter Tail contemplated alternative rate designs that would promote conservation.

- In the Direct Testimony of Otter Tail witness and consultant Amparo Nieto, Ms. Nieto states that time-varying rates are an appropriate way to promote conservation because they:
  - "provide signals of the higher cost of service in the hours in the day when electricity costs are the highest or when capacity is strained."
  - Ms. Nieto identifies critical peak pricing, peak time rebates, and time-of-use rates as effective time-varying pricing schemes for sending strong conservation signals.
  - Ms. Nieto also states that time-varying pricing methods would incorporate marginal cost principles by reflecting "peak marginal energy and capacity costs, including marginal generation capacity, transmission and high-voltage distribution costs."

WHAT OPTIONS WERE AVAILABLE?

- Otter Tail did not have any options in the existing rate schedules for Residential customers to choose from in the event they wanted this opportunity.
- Fresh Energy suggested following the path outlined for Xcel Energy in docket E002/CI-15-662. In that docket, the Commission released draft principles to guide rate design in Minnesota.
  - This was an extensive docket that examined inclining block rates, critical peak pricing, time of day rates and introducing a demand charge to residential rates.
  - Participants included Xcel Energy, consumer advocate groups and state agencies.
  - Xcel completed the pilot two year pilot and is now proposing in docket E002/M-23-524 to make the rate permanent for all Minnesota residential customers.
    - Three time blocks and two seasons.

TRANSITION TRIVIA – WHO THOUGHT UP THIS NAME?

- Otter Tail County Historical Society

The Name "Otter Tail"

Before there were roads in the wilderness area, the best method of transportation was by water; and as the Leaf Lakes drain towards the Gulf of Mexico. Otter Tail Lake toward Hudson Bay by way of the Red River of the North.

The early explorer would portage from Leaf Lake (Leaf City) to Portage Lake to Donald Lake to Pelican Bay on Otter Tail Lake and be on his way through Canada to Hudson Bay.

The first explorers through this area about 1750 were a Frenchman and an Englishman. They met with a band of Indians on the shore of "*Lac de la Queue de la Outer*", which roughly translates to "*Lake of the Otters Tail*".

This is on record in the archives of Congress, and I would think that it was called that for many years before that as the name derives from the sand bar shaped like an otter's tail where the Otter Tail River enters Otter Tail Lake (on the North East end of the lake) and now over two centuries later the otter's tail sand bar is still there.

North East end of Otter Tail Lake

WHAT ARE THE MN PUC RATE DESIGN PRINCIPLES?

1. Low income customers and those with special medical needs should have access to enough electricity to ensure basic needs at an affordable cost;
2. **Rates should be based on marginal costs;**
3. Rates should be equitable, generally based on cost-causation principles and avoiding cross-subsidies, unless it is necessary to meet explicit state policy goals;
4. Rates should encourage conservation and energy efficiency;
5. **Rates should reduce coincident system peak demand;**
6. Rates should be stable, understandable, and provide customer choices;
7. Rates should encourage economically efficient decision-making; and,
8. **Rates should be aligned with wholesale market prices that reflect the varying prices of electricity throughout the day and year.**
9. Rates should allow a utility to recover its revenue requirement in a manner that maintains utility revenue stability, and minimizes year-to-year under- or over-collections.

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WHAT DOES IT LOOK LIKE?

- User #1
- Uses electricity late at night when production costs are lower.
- Under conventional flat rates this customer does not receive the price discount associated with purchasing electricity that is cheaper to produce at night.

- User #2
- Uses electricity during peak usage hours when production costs are higher.
- Under flat rates this customer is subsidized by other users when paying a lower price under the flat rate, rather than a higher rate associated with usage during peak hours with higher production costs.

HOW DOES IT WORK?

- First, divide the calendar year into seasons. Summer and winter have different production costs so you can match prices accordingly.
  - More granular seasonality includes adding a shoulder season to represent spring and summer.
- Then divide the week into weekday and weekend blocks and match those costs with prices.
- Next divide the day into time blocks.
  - Two time blocks is the minimum, however, three time blocks better matches the cost gradients with price gradients.
- Overall, balance understanding of the time divisions with administrative complexity (metering and billing) to communicate to the customer how they can change their usage patterns to achieve lower electrical bills.

CRITICAL PEAK PRICING - EXAMPLE

IRRIGATION TIME OF USE PRICE PERIOD DESIGNATIONS

Summer season June, July, Aug, Sept

Hour Starting	Hour Ending	Sun	Mon	Tue	Wed	Thu	Fri	Sat
12:00 AM	1:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
1:00 AM	2:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
2:00 AM	3:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
3:00 AM	4:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
4:00 AM	5:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
5:00 AM	6:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
6:00 AM	7:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
7:00 AM	8:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
8:00 AM	9:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
9:00 AM	10:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
10:00 AM	11:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
11:00 AM	12:00 PM	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
12:00 PM	1:00 PM	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
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6:00 PM	7:00 PM	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
7:00 PM	8:00 PM	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
8:00 PM	9:00 PM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
9:00 PM	10:00 PM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
10:00 PM	11:00 PM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
11:00 PM	12:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak

Only those hours during the intermediate period indicated on prior day's notice

Winter season Oct through May

Hour Starting	Hour Ending	Sun	Mon	Tue	Wed	Thu	Fri	Sat
12:00 AM	1:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
1:00 AM	2:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
2:00 AM	3:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
3:00 AM	4:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
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10:00 AM	11:00 AM	Off-peak	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Off-peak
11:00 AM	12:00 PM	Off-peak	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Off-peak
12:00 PM	1:00 PM	Off-peak	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Off-peak
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6:00 PM	7:00 PM	Off-peak	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Off-peak
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9:00 PM	10:00 PM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
10:00 PM	11:00 PM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak
11:00 PM	12:00 AM	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak	Off-peak

Only those hours during the intermediate period indicated on prior day's notice

"Declared" price period
"Intermediate" price period
"Off-peak" price period

TRANSITION TRIVIA – WHY IS OTP BASED IN FERGUS FALLS?

- "The water of the Otter Tail River tumbles downward more than 300 feet as it crosses Otter Tail County's highlands to the valley of the Red River of the North".
  - Fergus Falls is located about halfway down the bumpy, lake-studded slope.
- Promoters envisioned a metropolis, perhaps fourteen miles long on both sides of the river, as factories lined up for their share of the falling water. Literature of the time pointed out proudly that the power potenial of the Otter Tail River far outstripped the puny falls of the Mississippi at St. Anthony (Minneapolis).
  - Credit "A pictorial history of Otter Tail Power Company; 1909-1999"

THEY HAD ONE JOB....

Broken Down Dam

Formerly known as "City Dam"

Photo credit to Rod Scheel; former Otter Tail Power employee and Executive

OTP PILOT STRUCTURE

	2022	2024
Opt-in or Opt-out	Opt-in	Opt-in
Sample Size	50	100
Time Blocks	3	3
Pilot Period	2 Years	1 Year

WHAT ARE THE BENEFITS OF TIME OF DAY RATES?

- Potentially lower costs
  - “The cheapest power plant to build is the one you don’t have to…” (Ancient utility proverb)
  - By influencing customers to not consume electricity when it is most expensive to produce, you may delay or reduce the need for peaking generation sources.
  - The customer benefits in having options to lower their bill without changing the total amount they use by moving consumption to lower priced time periods.

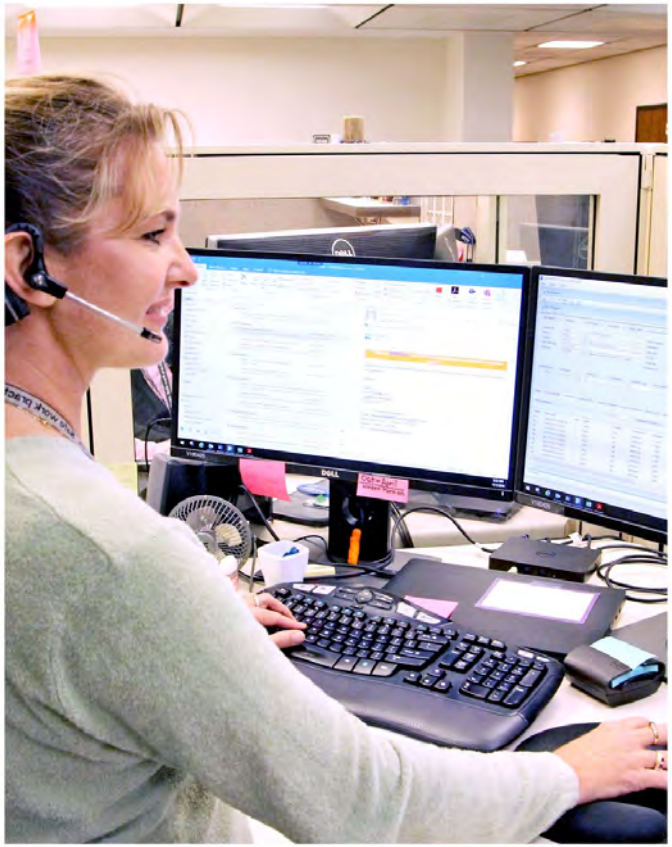
- Potential environmental benefits
  - You may mitigate or defer the need for fossil fuel based generation sources.
  - Time of use pricing can incentivize customers to shift their use to periods when wind or solar generation are more prevalent.

TIME OF DAY PILOT RECAP

- Historical background
  - This journey started in 2016 and was suggested by a consumer advocacy group.
    - This journey coincided with a Minnesota PUC led iniative to evaluate different time of day options for Xcel Energy.
- The basic concepts of TOD pricing were introduced.
- An introduction to the OTP pilot structure was given.

Questions?

NEW TECHNOLOGIES



ADVANCED METERING INFRASTRUCTURE

- RF Network to provide radio coverage
  - Fully deployed across OTP's territory
- Meters read frequently to support business needs
  - Register reads daily (midnight)
  - Interval data 15 min every four hours
    - Billing
    - Customer presentment
- Meters can be reprogrammed **o**ver-**t**he-**a**ir (OTA)
  - Add data points
    - Support rate development/deployment
    - Load research
- Data is validated daily in the Meter Data Management System
- 40,000 meters deployment
  - 70% in MN

MY ACCOUNT

- Otter Tail Power company implemented our new My Account portal in August of 2023.
- This portal offers:
  - Streamlined view/pay bill experience with advanced digital wallet options.
  - Ability to manage billing, outage, and load management communication preferences, and to set usage thresholds.
  - Comprehensive graphing for both consumption and billable dollars.
  - Ability to filter by date range and export transactional data on accounts.
  - Ability to submit self-service requests.

MY ACCOUNT

Future of TOD and AMI interval data at MyMeter:

- Customers will be able to view their usage and billing detail in intervals of:
  - 15 minutes
  - 30 minutes
  - Hourly
  - Daily
  - Weekly
  - Monthly
- Customers can opt in to receive email notifications when they are entering into a higher pricing period.
  - SMS will be a future enhancement
- Set usage thresholds to be alerted when usage is over/under certain kWh or kW, in a selected billing period, via either email or SMS.

MY ACCOUNT

Time of Day My Account (future) graph representation

- On Peak
- Off Peak
- Mid Peak

MY ACCOUNT


Tom Demo (Acct 11111120)
366 Jackson St, ste 101, St. Paul, MN 55114
Charts
Data
Property
PEAK-TIME REBATE
SIGN UP TODAY
Be informed and save money
See how weather affects your bill
Compare your rate options
GO
Electric
Show Hover Chart
High / Low
Consumption (kWh)
Bar
Daily
Zoom
2w
1m
3m
1y
Thursday, Feb 22, 2024
Victory Hills – 22222234 – Off-Peak: 20.02 kWh
Victory Hills – 22222234 – On-Peak: 7.57 kWh
Net Usage: 27.59 kWh
Temperature: 28° | 39° | 52°F
12:00 AM
8:00 AM
4:00 PM
kWh
17. Feb
18. Feb
19. Feb
20. Feb
21. Feb
22. Feb
23. Feb
24. Feb
25. Feb
26. Feb
27. Feb
28. Feb
29. Feb
1. Mar
Jan '23
May '23
Sep '23
Jan '24

MY ACCOUNT

- In conclusion, the My Account portal will provide much more visibility into a customer's daily usage in each of the pricing periods.
- The account holder will be able to export data that is most relevant to them and to their energy savings.

- Customers will be better able to manage their usage with the assistance of notifications related to energy usage within the home.

- Questions?

Questions?

RATE DESIGN

STEPS

Revenue Requirement (Rates Team): Determine the total amount of revenue required to earn a fair rate of return.

Rate Design (Pricing Team): Design a set of prices and mechanics that generate revenue equal to the revenue requirement.

REVENUE REQUIREMENT

Operating Expenses

+

Taxes

+

Annual Depreciation Expense

+

Overall Rate of Return

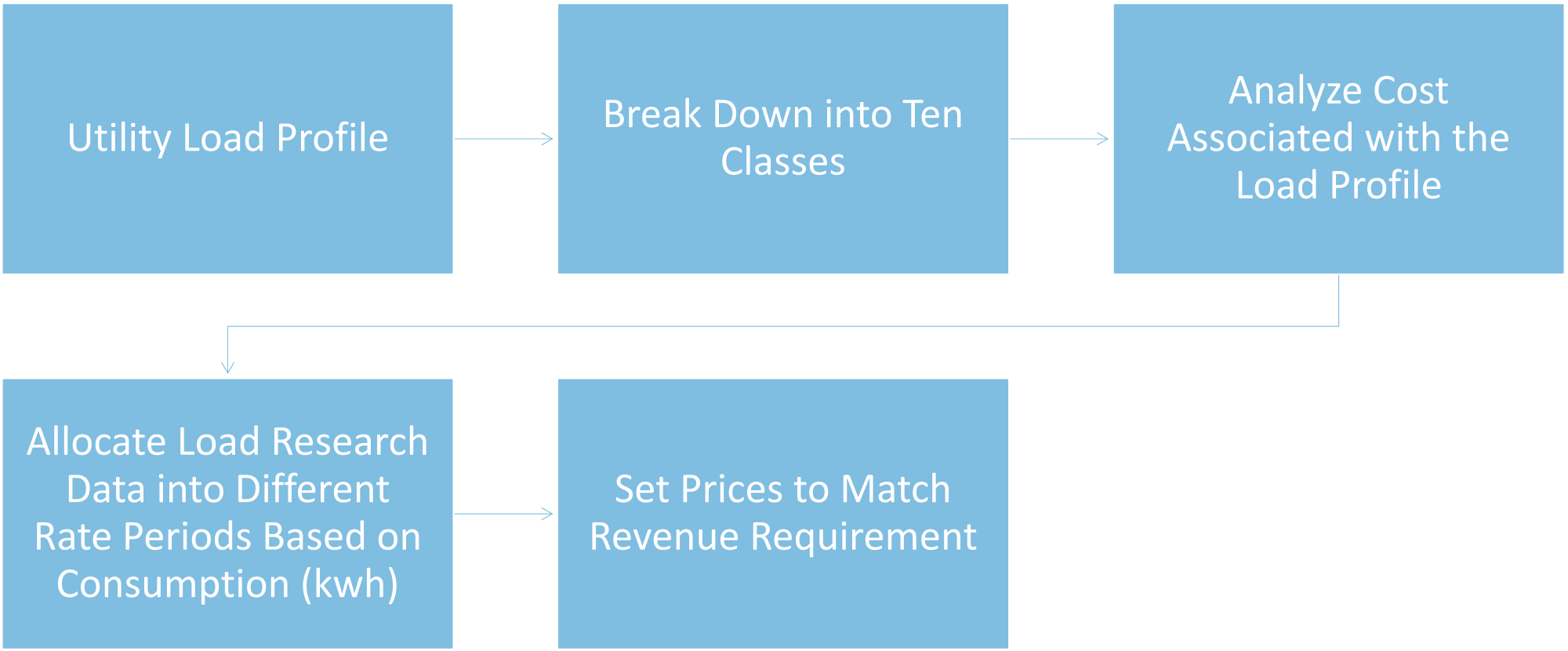
✖

Rate Base

=

Revenue Requirement

RATE DESIGN


Utility Load Profile
Break Down into Ten Classes
Analyze Cost Associated with the Load Profile
Allocate Load Research Data into Different Rate Periods Based on Consumption (kwh)
Set Prices to Match Revenue Requirement

THREE TIME PERIODS

Department of Energy Study (Published in 2016):

"On average, customers responded to a greater extent (i.e., reduced their peak demand to a greater extent) when exposed to higher rather than lower price ratios. Results indicate that customers reduced demand during the peak period by 6%, on average, when experiencing a peak to off-peak price ratio less than 2:1 compared to 18% when experiencing a price ratio greater than 4:1."

EXAMPLES

With Facility Charge

RESIDENTIAL TIME OF DAY SERVICE - PILOT				
Customer Charge per Month:	$10.75			
Monthly Minimum Bill:	Customer + Facilities Charge			
Facilities Charge per Month:	$3.50			
Energy Charge per kWh:	Summer		Winter	
On-Peak	10.692	¢/kWh	12.332	¢/kWh
Mid-Peak	6.186	¢/kWh	6.523	¢/kWh
Off-Peak	3.376	¢/kWh	4.758	¢/kWh

Without Facility Charge

RESIDENTIAL TIME OF DAY SERVICE - PILOT				
Customer Charge per Month:	$10.75			
Monthly Minimum Bill:	Customer + Facilities Charge			
Facilities Charge per Month:	$0.00			
Energy Charge per kWh:	Summer		Winter	
On-Peak	11.532	¢/kWh	13.291	¢/kWh
Mid-Peak	6.673	¢/kWh	7.035	¢/kWh
Off-Peak	3.641	¢/kWh	5.132	¢/kWh

Questions?

OBJECTIVES

Communicate with stakeholders about the reasons behind the initial pause of the pilot plan.

Provide stakeholders with comprehensive details regarding the current OTP MN Residential TOD pilot.

Solicit stakeholder input on the pilot design.

DISCUSSION TOPICS ON PILOT PROPOSAL

- Sample Size
- Opt-in vs out
- Pilot Commitment period
- Rate Periods
- Rates Design

CONTACT INFORMATION

If you have further inquiries, kindly forward them to awang@otpco.com by this Friday's end. We'll discuss them in next week's stakeholder meeting. If you prefer anonymity, please indicate so in your email.

otpco.com
otpsustainability.com

TOD Stakeholder Meeting – 04/16/2024

Attendees: Andy Wang, Brian Boss, Dave Prazak, Jolene Schmit, Stuart Tommerdahl, Ben Christenson, Luke Meech, Bruce Gerhardson, Annalise Smith, Lana Fedje, Mike Haagenson, Kenneth Schmaltz, Tom Schultz

Remote attendees:
Yunpei Zhang (PUC), Olivia Carroll (CUB), Peter Teigland (DOC), Chuck Adelsman, Mr. Smith

Objectives

Key Terms

Recap
02/28/2020: TOD Pilot initially filed, ultimately paused because parties couldn't agree on parameters of pilot

07/08/2022 Order
Reviewed topics we're ordered to include in proposed pilot

06/2023 Compliance Filing

11/14/2023 Order

Filing of new TOD expected in 08/2024

Q: (Ken Schmaltz) Sounds like this will require a new meter. What will that measure? Will it control demand?
A: *New meters are being installed to all customers throughout service territory. New meters transmit usage data back daily so we can better track customer usage. Customer is more in control of demand control.*

Q: (Olivia Carroll) Will second stakeholder meeting be the same?
A: *Feedback from this meeting will be incorporated into the second meeting. The week between meetings hopefully will allow time in case other questions come in.*

PUC's rate design principles

TOD Pricing Benefits

New Pilot structure

Q: (Ken Schmaltz) Is my rate based on when the most load is used?
A: *Yes*
Q: (Ken Schmaltz) So if I keep using the same (electricity) as I always do I will pay a different rate based on the time of day?
A: *Yes*

Q: (Ken Schmaltz) When you say you're going to shut off the air conditioner, how are you going to do that? (In reference to Brian's example where we control AC.)

A: *That would be only if you are enrolled in the Cool Savings load control program. (Ben explained how that works.)*

A: *Brian clarified that residential demand control is separate from this residential time of day rate.*

Ben's explanation of AMI:

- Permits us to be more agile with response
- Radio frequency network transmits data so meters are read frequently
- We can remotely make changes to meters as customers want

Q: (Tom Schultz) Does this new meter technology provide any advantage to what the customer sees on the app (referencing the increased data that will be available)?

A: *(Ben answered) That is what we are enabling with these new meters. There is a lot of functionality that we are introducing with these – some of it is ready today and some will be available late 2024-early 2025. My Account is ready and able to support increased data the new meters will provide. Jolene will explain that. The new meters will also support apps which will break down data even further. There is a load segregation app which can break down data even further so customer is better able to analyze use. We are intentionally being a little slower on introducing the apps as this is all very new technology.*

Q: (Dave Prazak) When will deployment of new meters be complete?

A: *(Ben answered) Anticipated to be substantially complete by the end of October 2024.*

A: *Dave pointed out that one of the advantages of the new meters is the load research data OTP will now have. Instead of analyzing a small sample of customers with special load research meters, we can analyze all customers' loads. We will be able to better compare customers' rates (are they better off on a residential rate or a TOD rate).*

Jolene explained Customer Experience:
My Account portal – Customers have the ability to choose how their data is presented to them and can receive alerts/notifications if desired.

Q: (Olivia Carroll) Will there be any on-bill rate comparative data be available to customers (shadow billing)? What options will be available to customers to understand their rate and how their rate might change?

A: *(Jolene answered) The rate comparison tool is available with My Meter and some companies choose to use it. OTP does rate comparisons in CIS right now. Otter Tail would need to decide validation points to make sure customer is receiving the best data and that they trust the data. Otter Tail is not utilizing a rate comparison tool at this time but that could change in the future if they feel the results can be trusted.*

Q: (Olivia Carroll comment) I know some places do this but require six months of AMI data before shadow billing.

A: *(Ben answered) We are just beginning to collect the information necessary to do this so it's just a matter of us feeling comfortable with how we would do this. We will collect up to three years of information. That may change in the future as our platforms mature.*

Q: (Dave asked Olivia) Do you have bill comparison capability with your current provider?
A: *(Olivia Carroll) No. I have Xcel Energy and that is one point they mentioned in their TOD proposal. I have looked at Time of Use rates nationwide and have seen a lot of success and positive customer feedback when there is on-bill comparisons.*
A: *(Dave comment) Thank you for that input. We appreciate it.*

CONTINUATION AFTER LUNCH:

Rate design:
- Revenue requirement components
- Rate design components

Three time period/two season model - DOE study supports this model

No questions after rate design section

Recap of pilot proposal

Q: (Olivia Carroll) Do you have a timeline of when you expect to have the rate design finalized?
A: *We are currently working on this with our consultants. We would like it out as soon as possible and are hoping to have a sneak peek ready next week's stakeholder meeting.*

Q: (Olivia Carroll) Do you have any plans for bill protection guard rails? (She made a reference to bill protections in Xcel Energy's Time of Use pilot but did note the opt-in feature in OTP's TOD pilot.)
A: *No, we are not planning on a bill protection. We don't want other residential customers to subsidize the pilot. Consumer behavior may not be influenced enough if bill protections are in place.*

Q: (Olivia Carroll) This may be difficult with the opt-in, but will OTP be tracking bill impacts and reductions on peak usage in specific demographics such as low income, seniors, or renters?
A: *As Ben mentioned before, we are currently tracking the data collected through the new meters in the AMI project. By the time this TOD pilot is implemented we could have six months of usage data to analyze. We'd be able to continuously analyze data and make adjustments as needed.*

Q: (Mr./Ms. Smith) Could we opt out of the three rates after the program is implemented?
A: *Once you opt in to the pilot, you are committed to one year since it is a one-year pilot. You may opt out after one year.*

Q: (Ben Christenson) Will this rate be included in OTP's regular rate offering? Will that be determined after the Pilot is completed?
A: *Once the pilot is complete, the PUC will review the results and decide if adjustments are needed. The TOD rate will be added to our regular rates only if the PUC approves it.*

Q: (Annalise Smith) Would we change the sample size of 100? What if we do not get enough customers to opt-in?
A: *Yes, if need be. We need at least 68 for accurate sampling.*

Q: (Mr./Ms. Smith) After the PUC approves it can I opt out of the three rates?
A: *Clarification – There is only one rate but three different time periods. (Andy showed examples again.) In response to the question – Yes, after a one-year commitment.*
A: *(Bruce clarification) – This pilot program is completely voluntary. Customers will not be enrolled without their approval.*

Q: (Stuart Tommerdahl) Will the slides be available?
A: *Yes, they will be emailed.*

Q: (Tom Schultz) If I participate in this program will my bill show what I'm currently paying and what I would have been paying if I wasn't enrolled?
A: *We would like to offer that but it may not be ready right away.*
A: *(Dave reiterated) Yes, that is what we would want as a customer too. It may not be available immediately but hopefully be available shortly after.*

Q: (Mr./Ms. Smith) Will the new meters provide the usage data so customer can calculate if the three-tiered price is better for us than the single price?
A: *Yes, the interval data would be available in order to do those calculations.*

Q: (Tom Schultz) If I participate in this program will it compete with my current demand control?
A: *OTP will not control your demand when you participate in this program. In this program you can choose to alter usage depending on the time period/rate.*

Q: (Stuart Tommerdahl) Will time periods be a little more defined for next week's meeting?
A: *Yes, we are hoping for that.*

Q: (Mr./Ms. Smith) What months will be in the two seasons?
A: *Currently, summer is defined as June-Sept, winter is Oct – May. We may see an adjustment once our study is complete. We should know more next week.*

Q: (Jolene) Are you able to be on residential demand control and participate in this program? Aren't they competing?
A: *This pilot program could be a transition to some form of RDC. We have been considering some changes to the RDC program but it is complicated. This pilot is a study to see what options are best for customers.*

MN RESIDENTIAL TIME OF PILOT

Otter Tail Power Company

Stakeholder Group Meeting #2 April 23, 2024

WELCOME

This meeting is being recorded

AGENDA

• Welcome & Recap	10:00AM – 10:20AM
• Summary of Previous Questions	10:20AM – 10:40AM
• Addressing New Question	10:40AM – 11:00AM
• Rate Proposal	11:00AM – 11:20PM
• Q&A and Discussion	11:20PM – 11:50PM

OBJECTIVES

Recap of the events of the previous meeting.

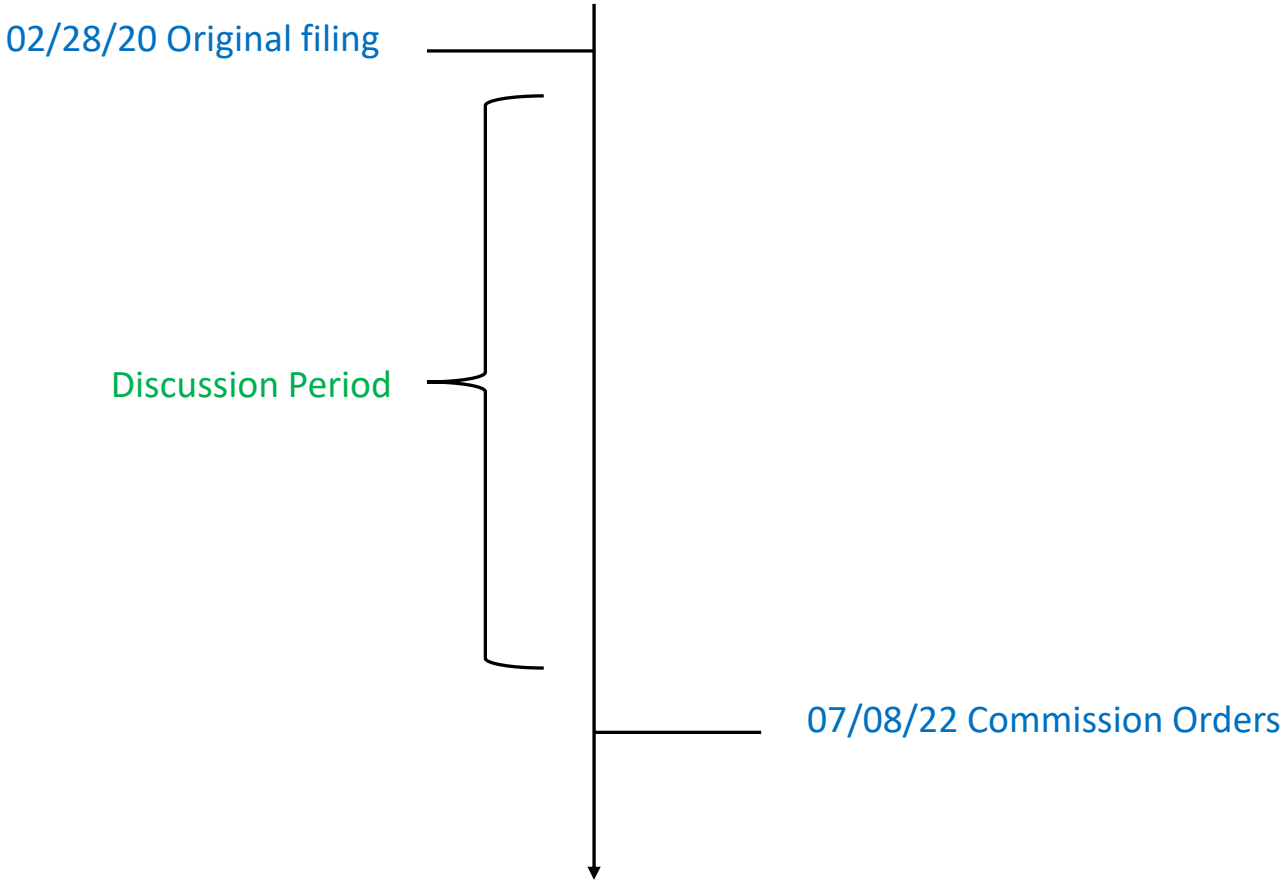
Addressing lingering and newly raised concerns.

Solicit stakeholder input on the pilot design.

RECAP



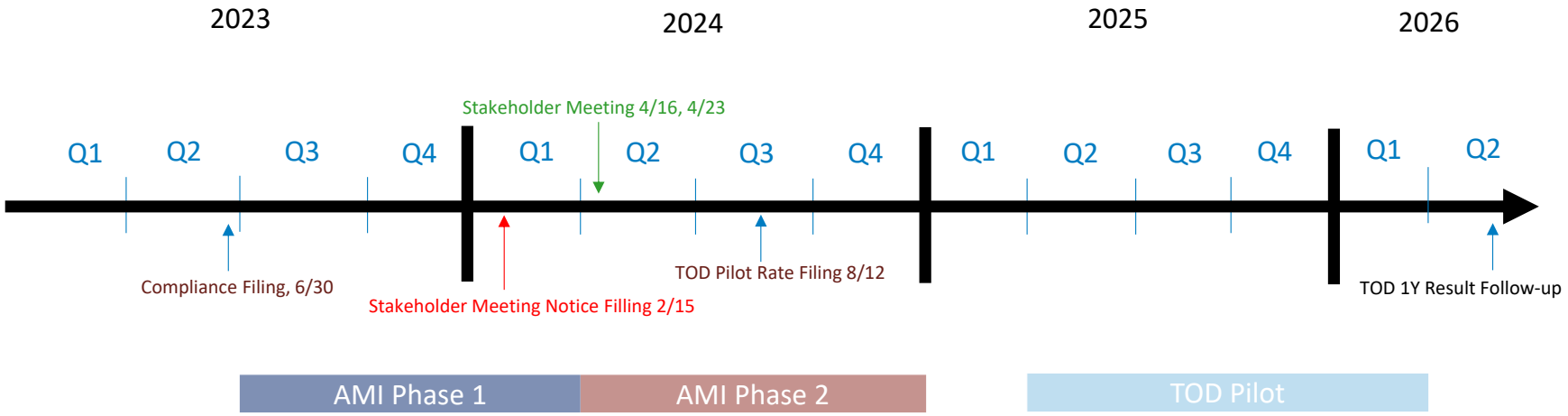
PREVIOUS TIMELINE



DISCUSSION TOPICS

- Sample Size
- Opt-in vs out
- Pilot Commitment period
- Rate Periods
- Rates Design

CURRENT TIMELINE



STEPS TO RATE DESIGN

Revenue Requirement (rates team): Determine the total amount of revenue required to earn a fair rate of return.

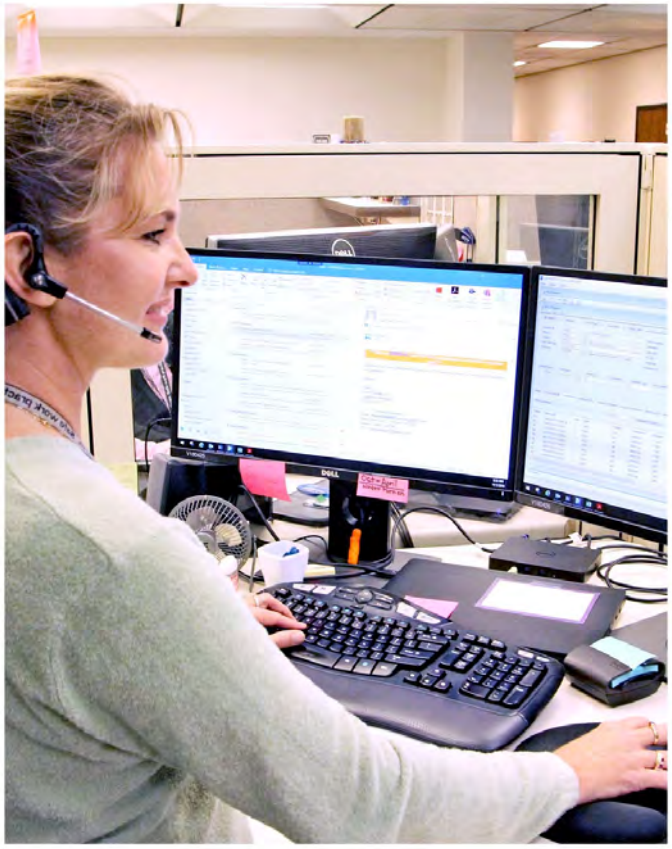
Rate Design (pricing team): Design a set of prices and mechanics that generate revenue equal to the revenue requirement.

OTP PILOT STRUCTURE

	2022	2024
Opt-in or Opt-out	Opt-in	Opt-in
Sample Size	50	100
Time Blocks	3	3
Pilot Period	2 Years	1 Year

Questions?

SUMMARY OF PREVIOUS QUESTIONS



1 OF 6

Q1: (Ken Schmaltz) Sounds like this will require a new meter. What will that measure? Will it control demand?
A1: New meters are being installed to all customers throughout service territory. New meters transmit usage data back daily so we can better track customer usage. Customer are in charge of demand control.

Q2: (Ken Schmaltz) So if I keep using the same (electricity) as I always do I will pay a different rate based on the time of day?
A2: Yes

2 OF 6

Q3: (Tom Schultz) Does this new meter technology provide any advantage to what the customer sees on the app?
A3: That is what we are enabling with these new meters. There is a lot of functionality that we are introducing with these – some of it is ready today and some will be available late 2024-early 2025. My Account is ready and able to support increased data the new meters will provide. The new meters will also support apps which will break down data even further. There is a load segregation app which can break down data even further so customer is better able to analyze use. We are intentionally being a little slower on introducing the apps as this is all very new technology.

Q4: (Dave Prazak - OTP) When will deployment of new meters be complete?
A4: Anticipated to be substantially complete by the end of October 2024.

3 OF 6

Q5: (Olivia Carroll) Will there be any on-bill rate comparative data be available to customers (shadow billing)? What options will be available to customers to understand their rate and how their rate might change?
A5: The rate comparison tool is available with My Meter and some companies choose to use it. OTP does rate comparisons in CIS right now. Otter Tail would need to decide validation points to make sure customer is receiving the best data and that they trust the data. Otter Tail is not utilizing a rate comparison tool at this time but that could change in the future if they feel the results can be trusted.

Q6: (Olivia Carroll) Do you have any plans for bill protection guard rails?
A6: No, we are not planning on a bill protection. We don't want other residential customers to subsidize the pilot. Consumer behavior may not be influenced enough if bill protections are in place.

4 OF 6

Q7: (Olivia Carroll) This may be difficult with the opt-in, but will OTP be tracking bill impacts and reductions on peak usage in specific demographics such as low income, seniors, or renters?
A7: As our AMI expert mentioned before, we are currently tracking the data collected through the new meters in the AMI project. By the time this TOD pilot is implemented we could have six months of usage data to analyze. We'd be able to continuously analyze data and make adjustments as needed.

Q8: (Ben Christenson - OTP) Will this rate be included in OTP's regular rate offering? Will that be determined after the Pilot is completed?
A8: Once the pilot is complete, the PUC will review the results and decide if adjustments are needed. The TOD rate will be added to our regular rates only if the PUC approves it.

5 OF 6

Q9: (Annalise Smith - OTP) Would we change the sample size of 100? What if we do not get enough customers to opt-in?
A9: Yes, if need be. We need at least 68 in order to be within a 10% margin of error.

Q10: ("Customer" Smith) After the PUC approves it can I opt out of the three rates?
A10: There is only one rate but three different time periods. This pilot program is completely voluntary. Customers will not be enrolled without their approval.

Q11: (Tom Schultz) If I participate in this program will my bill show what I'm currently paying and what I would have been paying if I wasn't enrolled?
A11: Yes, that is what we would want as a customer too. It may not be available immediately but hopefully be available shortly after.

6 OF 6

Q12: (“Customer” Smith) Will the new meters provide the usage data so customer can calculate if the three-tiered price is better for us than the single price?
A12: Yes, the interval data would be available in order to do those calculations.

Q13: (Tom Schultz) If I participate in this program will it compete with my current demand control?
A13: You will not be enrolled in demand control when you participate in the TOD pilot. You will choose to alter usage depending on your own preference to the time period/rate.

Q14: (“Customer” Smith) What months will be in the two seasons?
A14: Currently, summer is defined as June-Sept, winter is Oct – May.

NEW QUESTIONS

Q: (Ken Schmaltz) What is to be controlled with remote meter control? When will the 100 customer group start the test period?

A: Nothing will be controlled if you are on the TOD pilot, customers decide how they would like to use their electricity based on the pricing schedule. The TOD pilot will start as soon it gets approved by the Commission, which is expected to be around Q2 2025.

RATE PROPOSAL

Company Overview and Pilot Background

TIME BLOCKS

COSTING PERIOD: SUMMER			
Hour Ending	Weekday	Saturday	Sunday
1	O	O	O
2	O	O	O
3	O	O	O
4	O	O	O
5	O	O	O
6	O	O	O
7	O	O	O
8	O	O	O
9	O	O	O
10	O	O	O
11	O	O	O
12	O	O	O
13	M	O	O
14	M	O	O
15	P	M	M
16	P	M	M
17	P	M	M
18	P	M	M
19	P	M	M
20	P	M	M
21	M	O	O
22	O	O	O
23	O	o	o
24	O	O	O
R^2		0.7206	

COSTING PERIOD: WINTER			
Hour Ending	Weekday	Saturday	Sunday
1	O	O	O
2	O	O	O
3	O	O	O
4	O	O	O
5	O	O	O
6	O	O	O
7	M	O	O
8	P	O	O
9	P	O	O
10	P	O	O
11	M	O	O
12	M	O	O
13	M	O	O
14	M	O	O
15	M	O	O
16	M	O	O
17	M	O	O
18	M	O	O
19	M	O	O
20	M	O	O
21	M	O	O
22	O	O	O
23	O	O	O
24	O	O	O
R^2		0.43835	

EXAMPLES WITH MARGINAL COST CUSTOMER CHARGE

With Facility Charge

RESIDENTIAL TIME OF DAY SERVICE - PILOT		
Customer Charge per Month:	$19.32	
Monthly Minimum Bill:	Customer + Facilities Charge	
Facilities Charge per Month:	$3.50	
Energy Charge per kWh:	Summer	Winter
On-Peak	9.087 ¢/kWh	11.951 ¢/kWh
Mid-Peak	5.484 ¢/kWh	5.486 ¢/kWh
Off-Peak	2.716 ¢/kWh	3.721 ¢/kWh

Without Facility Charge

RESIDENTIAL TIME OF DAY SERVICE - PILOT		
Customer Charge per Month:	$19.32	
Monthly Minimum Bill:	Customer + Facilities Charge	
Facilities Charge per Month:	$0.00	
Energy Charge per kWh:	Summer	Winter
On-Peak	9.971 ¢/kWh	13.114 ¢/kWh
Mid-Peak	5.963 ¢/kWh	6.019 ¢/kWh
Off-Peak	2.981 ¢/kWh	4.083 ¢/kWh

EXAMPLES WITH LOWER CUSTOMER CHARGE

With Facility Charge

RESIDENTIAL TIME OF DAY SERVICE - PILOT		
Customer Charge per Month:	$15.04	
Monthly Minimum Bill:	Customer + Facilities Charge	
Facilities Charge per Month:	$3.50	
Energy Charge per kWh:	Summer	Winter
On-Peak	10.168 ¢/kWh	13.373 ¢/kWh
Mid-Peak	5.963 ¢/kWh	6.138 ¢/kWh
Off-Peak	3.040 ¢/kWh	4.164 ¢/kWh

Without Facility Charge

RESIDENTIAL TIME OF DAY SERVICE - PILOT		
Customer Charge per Month:	$15.04	
Monthly Minimum Bill:	Customer + Facilities Charge	
Facilities Charge per Month:	$0.00	
Energy Charge per kWh:	Summer	Winter
On-Peak	11.053 ¢/kWh	14.536 ¢/kWh
Mid-Peak	6.610 ¢/kWh	6.672 ¢/kWh
Off-Peak	3.304 ¢/kWh	4.526 ¢/kWh

OBJECTIVES

Recap of the events of the previous meeting.

Addressing lingering and newly raised concerns.

Solicit stakeholder input on the pilot design.

YOUR INPUT

	2024	Stakeholder Input
Opt-in or Opt-out	Opt-in	Opt-in
Sample Size	100	100
Time Blocks	3	3
Pilot Period	1 Years	1 Year
Rate Design	Customer Charge: Marginal Cost Facilities Charge: $3.5	Customer Charge: Marginal Cost Facilities Charge: $3.5

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MN RESIDENTIAL TOD STAKEHOLDER MEETING MINUTES

April 23, 2024

Attendees: Andy Wang, Brian Boss, Dave Prazak, Stuart Tommerdahl, Ben Christenson, Laura Dewey, Kenneth Schmaltz, Tom Schultz

Remote Attendees: Yunpei Zhang (PUC), Peter Teigland (DOC), Mr. Smith, Lana Fedje

Welcome & Recap - meeting began at 10:00 am

Andy went through a recap slides

02/28/2020: TOD Pilot initially filed, ultimately paused because parties couldn't agree on parameters of pilot

07/08/2022 Order

Reviewed topics we're ordered to include in proposed pilot

06/2023 Compliance Filing

11/14/2023 Order

Filing of new TOD expected in 08/2024

Definition of Sample Size

Defined Opt In Vs Opt Out

Pilot Commitment Period – Every experiment needs to have meaningful results

Rate Periods- How many periods are within the TOD- onpeak off peak midpeak

Reviewed the Current Timeline for approval – should launch somewhere around Q2 2025 depending on approval process.

Rates Design- How we design our rates to recover the revenue requirement. Define our revenue requirement. Design a set of prices to generate revenue equal to the revenue requirement. Residential class.

OTP Pilot Structure reviewed – Previous Structure vs. New Proposed Structure

Summary of Previous Questions

See meeting minutes from 4/16/2024.

Updated Response to Q9 from April 16 meeting:
A: *The reason we originally had chosen 50 as our sample size Central Limit Theorem (CLT) any sample size above 30 and we take the average, it's a normal distribution. This means we would be able to do tests with a sample size over 30 which is why we originally chosen a sample size of 50. After taking the recommendations of the others including the MN Department of Commerce and the MN Public Utilities Commission, and with the current rollout of our AMI meters, we can increase the sample size to 100. However, if we do not have 100 opt in to participate in the pilot program, because if we look at 90% confidence interval, we only need 68 for a sample size.*

Q: (Ken Schmaltz) **What is to be controlled with remote meter control? When will the 100 customer group start the test period?**
A: *Nothing will be controlled if you are on the TOD pilot, customer decide how they would like to use their electricity based on the pricing schedule. The TOD pilot will start as soon as it gets approved by the Commission, which is expected to be around Q2 of 2025.*

Q: (Mr. Smith) Rephrased is question from the previous meeting regarding the opt out after the PUC approval. After the trial program is completed and the PUC has given final approval, will we have an option to opt out of the program at that time or will all customers be on the 3-tiered price?
A: *We are looking at this as a standard rate so that our customer can choose to have this rate. We are not planning at this point to force this on any residential customers. Fresh Energy suggested that we look at this type of pilot for energy conservation.*

Q: (Mr. Smith) In the future, 2 or 3 years down the road, could this be OTP's price structure for everybody?
A: *This is not the plan at this point. Our current plan for this is that it will be a choice for our customers within our standard rates. We are not planning on forcing this on anybody.*

Q: (Mr. Smith) If I chose not to go with this 3-tiered rate, would my electrical rate be at the mid-peak level?
A: *No. It would just be your standard rate that you are currently enrolled on. The on-peak, mid-peak and off-peak rates are only for customers that are enrolled in the TOD rate.*

Andy reviewed the time blocks being proposed:

Q: (Tom Schultz) Is there a way to compare my previous 12 months of usage and apply this program to it to make a determination what this might save me?
A: *Once AMI meters have been installed you will have the data to help determine whether enrolling in this program would save you money. Other functionalities within My Account are being discussed.*

Q: (Tom Schutlz) Would you need 12 months of new meter function before applying for the pilot program?
A: *Remember that if you use your previous 12-month data to determine whether this program will save you money, you have not altered your behaviors based on the on-peak, mid-peak and off-peak schedule.*

Q: (Mr. Smith) My facility charge would range from $3.50 to $11.00 per month if that fee is rolled into the kWh usage. The more electricity used causes a higher fee. Should there be a limit on the fee so that the "sky isn't the limit"?
A: *(Dave Prazak) If you look at the extreme and if you did not have any fixed charges at all and you put everything into kWh charge, there are a couple of concerns for the customer. For the customer who uses a lot, larger load users would be paying a lot more on a per kwh basis than a small user. Flip flop that. If we had the maximum amount of fixed charges and a very low kwh, very small users would pay quite a bit compared to a large user. So, there is a teeter totter balance going on. That's where our Marginal Cost Study is utilized because this is where we look at where the cost of a new meter, new service drop, typical connection point between transformer and substation. These fixed costs, the utility must collect these costs and we like to collect these from the customer appropriately. There is a balance, and we incorporate that into our rate design and then we address the variable costs.*

Q: (Tom Schultz) Will the TOD schedules be available to your customers now so that if they do not opt into the 100 customer pilot program, they could at least adjust their usage?
A: *All residential customers, estimated to be 54,000, will be included in our invitation to participate in the pilot program and the TOD schedule will be included in this communication. They can then opt into the pilot program based on the information that they receive.*

Rate Proposal

Examples with Marginal Cost Customer Charge

Reviewed the definitions of Marginal Cost, Customer Charge and Facilities Charge.

Reviewed the rate proposals WITH facility charge vs. WITHOUT facility charge.

Examples with Lower Customer Charge

Reviewed the definition of Customer Charge.

Reviewed the WITH customer charge vs. WITHOUT customer charge.

Q: (Mr. Smith) Currently summer rates per kWh are higher than winter rates (0.08194 vs 0.06111). Now it is higher in the winter. Why?
A: A quick response is due to changing cost concentrations, we review costs for generation, transmission, and distribution costs. We can provide specifics as a follow-up after this meeting.

Q: (Peter Teigland) Do you have an anticipated date when you plan to submit the pilot to the PUC for approval to go ahead?
A: *We anticipate an August 2024 filing with the MN PUC.*

Q&A and Discussion

Opt In Feedback:

Tom Schultz gave some feedback that he would personally like to opt in.

Ken Schmaltz asked a follow up question to verify the opt in approach. After more discussion, Ken responded that he agreed with the opt in approach for the pilot.

Mr. Smith made a statement that he is not sure he can make enough lifestyle changes to generate enough savings. He would be interested in analyzing my AMI usage after a year.

Sample Size Input:

Q: (Tom Schultz) At the end of the pilot, will the information shared with the public?
A: *We will not share your individual private information, but we will share our overall results. This will be provided in a filing to the MN PUC.*

Dave made a comment regarding the customer size: 100 customers are going to represent the residential class. We do not have to expend costs related to this study to 54,000 customers. We can statistically study 100 and with a confidence interval we understand that they represent what other customer could do.

Andy followed up with a statement reiterating that the costs of increasing the customer size.

Time Block Input:

Tom Schultz made a statement on practicality of the three-time block structure. Andy followed up with a review of previous comments/statements based on the schedule.

Q: (Ken Schmaltz)Would we consider changing the time blocks – on- peak, mid-peak and off-peak?
A: *Yes. The time blocks could be changed if we still take recovery into consideration.*

Pilot Commitment Period Input:

Q: (Tom Schultz)Will all 100 customers start this pilot program on the same date?
A: *Yes.*

Rate Design Input:

Andy reviewed the proposed rate design options.

Tom Schultz made a statement that his rate design preference is with Marginal Cost Customer Charge WITH Facility Charge. Ken Schmaltz noted that this would also be his preference.

Mr. Smith also shared in the chat that his preference is the same.

Conclusion

Q: (Ken Schmaltz) Is the information provided in these Stakeholder Meetings ok to share with the public?
A: *Yes.*

Attachment 2
Redline and Clean Versions of Rate Schedules

- Index
- Section 12.00 Purchase Power Riders – Availability Matrix
- Section 13.00 Mandatory Riders – Applicability Matrix
- Section 13.01 Energy Adjustment Rider
- Section 13.02 Conservation Improvement Project Rider
- Section 13.07 Uplift Program Rider
- Section 13.11 Electric Utility Infrastructure Cost Recovery Rider
- Section 14.00 Voluntary Riders – Availability Matrix

Section *Item*

PURCHASE POWER RIDERS - AVAILABILITY MATRIX

The amount of a bill for service will be modified by any Mandatory Rate Riders that must apply, by any Voluntary Rate Riders selected by the Customer, and charges listed in the General Rules and Regulations.

OTTER TAIL POWER COMPANY Availability Matrix	Purchase Power Riders	Net Energy Billing	Simultaneous Purchase & Sale Billing Rate	Time of Day Purchase Rates	Distributed Generation Service Rider	Community-Based Energy Development Rider (CLOSED)
Base Tariffs	Section Numbers	12.01	12.02	12.03	12.04	12.05
RESIDENTIAL & FARM SERVICES						
Residential Service	9.01	✓	✓	✓	✓	✓
Residential Demand Control Service	9.02	✓	✓	✓	✓	✓
Farm Service	9.03	✓	✓	✓	✓	✓
Residential Time of Day Service - Pilot	9.04					
GENERAL SERVICES						
Small General Service (Under 20 kW)	10.01	✓	✓	✓	✓	✓
General Service (20 kW or Greater)	10.02	✓	✓	✓	✓	✓
General Service - Time of Use	10.03	✓	✓	✓	✓	✓
Large General Service	10.04	✓	✓	✓	✓	✓
Large General Service - Time of Day	10.05	✓	✓	✓	✓	✓
Super Large General Service	10.06	✓	✓	✓	✓	✓
Electric Vehicle Direct Current Fast Charger (DCFC) General Service - Time of Day	10.07	✓	✓	✓	✓	✓
OTHER SERVICES						
Standby Service	11.01			✓	✓	✓
Irrigation Service	11.02					
Outdoor Lighting - Energy Only - Dusk to Dawn	11.03					
Outdoor Lighting - Dusk to Dawn (CLOSED)	11.04					
Municipal Pumping Service	11.05	✓	✓	✓	✓	✓
Civil Defense - Fire Sirens	11.06					
LED Street and Area Lighting	11.07					
Key:	✓ = May apply	■ = Mandatory	☐ = Not Applicable			

MANDATORY RIDERS - APPLICABILITY MATRIX

The amount of a bill for service will be modified by any Mandatory Rate Riders that must apply, by any Voluntary Rate Riders selected by the Customer, and charges listed in the General Rules and Regulations.

Applicability Matrix	Mandatory Riders	Energy Adjustment Rider	Conservation Improvement (CIP) Rider	Competitive Rate to Large General Service Rider	Renewable Resource Cost Recovery Rider	Transmission Cost Recovery Rider	Reserved for Future Use	Uplift Program Rider	Environmental Cost Recovery Rider	Energy-Intensive, Trade-Exposed (EITE) Rider	Revenue Decoupling Mechanism (RDM) Rider	Electric Utility Infrastructure Cost Recovery (EUIC) Rider
Tariffs	Section Numbers	13.01	13.02	13.03	13.04	13.05	13.06	13.07	13.08	13.09	13.10	13.11
RESIDENTIAL & FARM SERVICES												
Residential Service	9.01	■	■		■	■		✓	■	✓	■	■
Residential Demand Control Service	9.02	■	■		■	■		✓	■	✓	■	■
Farm Service	9.03	■	■		■	■		✓	■	✓	■	■
Residential Time of Day Service - Pilot	9.04	■	■		■	■		✓	■	✓		■
GENERAL SERVICES												
Small General Service (Under 20 kW)	10.01	■	■		■	■		■	■	✓	■	■
General Service (20 kW or Greater)	10.02	■	■	✓	■	■		■	■	✓	■	■
General Service - Time of Use	10.03	■	■	✓	■	■		■	■	✓	■	■
Large General Service	10.04	■	■	✓	■	■		■	■	✓	■	■
Large General Service - Time of Day	10.05	■	■	✓	■	■		■	■	✓	■	■
Super Large General Service	10.06	■	■		■	■		■	■	✓		■
Electric Vehicle Direct Current Fast Charging (DCFC) General Service - Time of Day	10.07	✓	✓		✓	✓		✓	✓	✓		✓
OTHER SERVICES												
Standby Service	11.01	■			■	■			■	✓		■
Irrigation Service	11.02	■	■		■	■		■	■	■	■	■
Outdoor Lighting - Energy Only - Dusk to Dawn	11.03	■	■		■	■			■	✓		✓
Outdoor Lighting - Dusk to Dawn (CLOSED)	11.04	■	■		■	■			■	✓		
Municipal Pumping Service	11.05	■	■	✓	■	■		■	■	■	■	■
Civil Defense - Fire Sirens	11.06								■	■		
LED Street and Area Lighting	11.07	■	■		■	■			■	✓		
Key:	✓ = May apply	■ = Mandatory	□ = Not Applicable									

CLASS ENERGY ADJUSTMENT FACTOR (EAF): A separate EAF will be determined for each customer service category defined by customer class. The EAF for each service category is the sum of the Current Period forecasted Cost of Energy multiplied by the applicable EAF Ratio, and the applicable annual true-up.

Service Category	Section	EAF Ratio
Residential	9.01, 9.02, 9.04	1.0555
Farm	9.03	1.0281
General Service	10.01, 10.02, 10.03, 10.07	1.0461
Large General Service non TOD	10.04, 10.06, 14.03	1.0207
Large General Service TOD – Winter On-Peak	10.05, 10.06, 11.01	1.2673
Large General Service TOD – Winter Shoulder	10.05, 10.06, 11.01	1.1106
Large General Service TOD – Winter Off-Peak	10.05, 10.06, 11.01	0.8499
Large General Service TOD – Summer On-Peak	10.05, 10.06, 11.01	1.2664
Large General Service TOD – Summer Shoulder	10.05, 10.06, 11.01	0.9956
Large General Service TOD – Summer Off-Peak	10.05, 10.06, 11.01	0.6896
Irrigation Service	11.02	0.9250
Outdoor Lighting	11.03, 11.04, 11.07	0.8645
OPA	11.05	1.0210
Controlled Service Deferred Load	14.01, 14.06	0.9513
Controlled Service Interruptible	14.04,	0.9883
Controlled Service Off-Peak	14.07, 14.12	0.9164

Forecasted Class EAF's are published on OTP's website at https://www.otpco.com/pricing.

In addition, subject to Commission approval, there shall be an annual true-up for any amount collected over or under the actual cost of energy for the twelve months ending December 31 of each year as reported in the Annual Automatic Adjustment True-up report to be filed by March 1 following the most recent reporting period. The annual true-up shall be based on a historic twelve-month period, comparing actual costs per kWh to the forecasted costs per kWh and shall be applied to the subsequent twelve months. The annual true-up will be effective on billings beginning the first of the month following Commission approval of the true-up, or as ordered by the Commission. In years when the over- or under-recovery amount is small (resulting in a true-up rate rounded to less than 0.001¢), the true-up balance will carry over to the next year's true-up.

Service Category	Section	Rate per kWh
Residential	9.01, 9.02, 9.04	0.683 ¢kWh
Farm	9.03	0.689 ¢kWh
General Service	10.01, 10.02, 10.03, 10.07	0.686 ¢kWh
Large General Service	10.04, 10.05, 10.06, 14.02, 14.03	0.682 ¢kWh
Irrigation Service	11.02	0.362 ¢kWh
Outdoor Lighting	11.03, 11.04, 11.07	0.778 ¢kWh
OPA	11.05	0.604 ¢kWh
Controlled Service Deferred	14.01, 14.06	0.657 ¢kWh
Controlled Service Interruptible	14.04	0.709 ¢kWh
Controlled Service Off Peak	14.07, 14.12	0.593 ¢kWh

DETERMINATION OF CONSERVATION SURCHARGE RATES: The Conservation Surcharge shall be the Recoverable CIP Tracker Balance multiplied by the Service Category's CIP energy allocator (E2), divided by the corresponding Service Category's projected Minnesota non-exempt retail energy sales for a designated 12-month recovery period. The Surcharge may be adjusted annually by approval of the Minnesota Public Utilities Commission (MNPUC). The Recoverable CIP Tracker Balance is determined as described below, starting with the MNPUC accepted CIP Tracker account balance as of the end of the prior year. From this starting point:

1. Add financial incentives awarded by the MNPUC not reflected in the prior year-end CIP Tracker balance;

2. Add current year CIP approved spending levels.

All costs appropriately charged to the CIP Tracker account shall be eligible for recovery through this Rider and all revenues received from the application of the Conservation Surcharge Factor shall be credited to the CIP Tracker account.

MANDATORY AND VOLUNTARY RIDERS: The amount of a bill for service will be modified by any Mandatory Rate Riders that must apply and by any Voluntary Rate Riders selected by the Customer, unless otherwise noted in this schedule. See Sections 12.00, 13.00 and 14.00 of the Minnesota electric rates for the matrices of riders.

UPLIFT PROGRAM RIDER

DESCRIPTION	RATE CODE
Residential	MUPRS
Farm	MUPFM
General Service	MUPGS
Large General Service	MUPLG
OPA	MUPOP

RULES AND REGULATIONS: Terms and conditions of this electric rate schedule and the General Rules and Regulations govern use of this rider.

APPLICATION OF RIDER: The rider is applicable to electric service under Rate Schedule Sections 9.01, 9.02, 9.03, 9.04, 10.01, 10.02, 10.03, 10.04, 10.05, 10.06, 10.07, 11.02, and 11.05. Customers, as defined in Minn. Stat. 216B.16, Subd. 15, shall be assessed the surcharge. Customers with Low Income Home Energy Assistance Program (LIHEAP) designation in the Company's billing system at the time of billing shall be exempt from the surcharge. N

COST RECOVERY CHARGE: The Uplift Surcharge Rate shall be calculated using the total non-LIHEAP customer count from the prior calendar year. The total customer charge for each applicable customer class will be divided by the aggregate of customer charges for all applicable classes to obtain a percent of total customer charge for each class. The percent of customer charge for each class will be multiplied by the total estimated Uplift Credit and then divided by the class customer count to obtain a flat monthly fee for the applicable class.

RATE:

Service Category	Section	Monthly Charge
Residential	9.01, 9.02, 9.04	$0.24
Farm	9.03	$0.47
General Service	10.01, 10.02, 10.03, 10.07	$0.54
Large General Service	10.04, 10.05, 10.06	$2.30
OPA	11.02, 11.05	$0.50

RATE:

Service Category	Section	Per Meter Charge
Residential	9.01, 9.04	$1.43
Residential RDC	9.02	$3.47
Farm	9.03	$3.40
General Service	10.01, 10.02	$5.52
General Service - TOU	10.03, 10.07	$11.33
Large General Service - Primary / Transmission	10.04, 10.05, 10.06, 11.01	$41.24
Large General Service - Secondary	10.04, 10.05, 10.06, 11.01	$13.31
Irrigation Service	11.02	$9.31
Outdoor Lighting (Metered)	11.03	$3.54
OPA (Metered)	11.05	$3.96
Controlled Service Deferred Load	14.01, 14.06	$3.47
Controlled Service Interruptible – Self-Contained	14.04	$3.54
Controlled Service Interruptible – CT Metering	14.04	$14.24
Controlled Service Off Peak	14.07, 14.12	$4.33

MANDATORY AND VOLUNTARY RIDERS: The amount of a bill for service will be modified by any Mandatory Rate Riders that must apply and by any Voluntary Rate Riders selected by the Customer, unless otherwise noted in this rider. See Sections 12.00, 13.00 and 14.00 of the Minnesota electric rates for the matrices of riders.

VOLUNTARY RIDERS - AVAILABILITY MATRIX

The amount of a bill for service will be modified by any Mandatory Rate Riders that must apply, by any Voluntary Rate Riders selected by the Customer, and charges listed in the General Rules and Regulations

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Availability Matrix	Voluntary Riders	Water Heating Control Rider	Real Time Pricing Rider	Large General Service Rider	Controlled Service - Interruptible Load Self-Contained and CT Metering Rider	Reserved for Future Use	Controlled Service - Deferred Load Rider	Fixed Time of Service Rider	Air Conditioning Control Rider	Renewable Energy Rider	WAPA Bill Crediting Program Rider	Reserved for Future Use	Off-Peak Electric Vehicle Rider	Reserved for Future Use	My Renewable Energy Credits (My RECs) Rider
Base Tariffs	Section Numbers	14.01	14.02	14.03	14.04	14.05	14.06	14.07	14.08	14.09	14.10	14.11	14.12	14.13	14.14
RESIDENTIAL & FARM SERVICES															
Residential Service	9.01	✓			✓		✓	✓	✓	✓	✓		✓		
Residential Demand Control Service	9.02	✓							✓	✓	✓		✓		
Farm Service	9.03	✓			✓		✓	✓	✓	✓	✓		✓		✓
Residential Time of Day Service - Pilot	9.04									✓					
GENERAL SERVICES															
Small General Service (Under 20 kW)	10.01	✓			✓		✓	✓	✓	✓	✓		✓		✓
General Service (20 kW or Greater)	10.02	✓	✓		✓		✓	✓	✓	✓	✓		✓		✓
General Service - Time of Use	10.03	✓	✓							✓	✓		✓		✓
Large General Service	10.04	✓	✓	✓	✓		✓	✓		✓	✓		✓		✓
Large General Service - Time of Day	10.05	✓	✓	✓	✓		✓	✓		✓	✓		✓		✓
Super Large General Service	10.06	✓	✓	✓	✓		✓	✓		✓	✓		✓		✓
Electric Vehicle Direct Current Fast Charger (DCFC) General Service - Time of Day	10.07									✓					✓
OTHER SERVICES															
Standby Service	11.01														✓
Irrigation Service	11.02										✓				✓
Outdoor Lighting - Energy Only - Dusk to Dawn	11.03										✓				✓
Outdoor Lighting - Dusk to Dawn (CLOSED)	11.04										✓				✓
Municipal Pumping Service	11.05	✓	✓		✓		✓	✓		✓	✓		✓		✓
Civil Defense - Fire Sirens	11.06														✓
LED Street and Area Lighting	11.07										✓				✓
Key:	✓ = May apply	■ = Mandatory	□ = Not Applicable												

Section *Item*

RESIDENTIAL TIME OF DAY SERVICE – PILOT
(Commonly identified as Residential TOD Pilot)

DESCRIPTION	RATE CODE
Residential Time of Day Service	M110

RULES AND REGULATIONS: Terms and conditions of this electric rate schedule and the General Rules and Regulations govern use of this service.

APPLICATION OF SCHEDULE: This schedule is only applicable to a maximum of 300 single-metered individual Residential Service Customers, served under Section 9.01 (Rate Code M101) and 9.02 (Rate Code M241), Residential Service and Residential Demand Control, during the pilot evaluation period. Voluntary Rate Riders are not allowed under this rate schedule, except for Section 14.09.

RATE:

RESIDENTIAL TIME OF DAY SERVICE - PILOT		
Customer Charge per Month:	$17.07	
Monthly Minimum Bill:	Customer + Facilities Charge	
Facilities Charge per Month:	$3.50	
Energy Charge per kWh:	Summer	Winter
On-Peak	9.329 ¢/kWh	12.412 ¢/kWh
Mid-Peak	5.656 ¢/kWh	6.086 ¢/kWh
Off-Peak	2.924 ¢/kWh	3.897 ¢/kWh

MANDATORY AND VOLUNTARY RIDERS: The amount of a bill for service will be modified by any Mandatory Rate Riders that must apply and by any Voluntary Rate Riders selected by the Customer, unless otherwise noted in this schedule. See Sections 12.00, 13.00 and 14.00 of the Minnesota electric rates for the matrices of riders. **N**

DEFINITION OF ON-PEAK, MID-PEAK AND OFF-PEAK PERIODS BY SEASON: **N**

Winter: October 1 through May 31 **N**

On-Peak: For all kW and kWh used Monday through Friday between hours 7:00 a.m. to 10:00 a.m. **N**

Mid-Peak: For all kW and kWh used Monday through Friday between hours 6:00 a.m. to 7:00 a.m., 10:00 a.m. to 9:00 p.m. **N**

Off-Peak: For all kW and kWh used Monday through Friday between hours 9:00 p.m. to 6:00 a.m. and all weekend hours. **N**

Summer: June 1 through September 30 **N**

On-Peak: For all kW and kWh used Monday through Friday between hours 2:00 p.m. to 8:00 p.m. **N**

Mid-Peak: For all kW and kWh used Monday through Friday between hours 12:00 p.m. (noon) to 2:00 p.m., 8:00 p.m. to 9:00 p.m., and on weekends between hours 2:00 p.m. to 8:00 p.m. **N**

Off-Peak: For all kW and kWh used Monday through Friday between hours 9:00 p.m. to 12:00 p.m. (noon) and on weekends between hours 8:00 p.m. to 2:00 p.m. **N**

TIME OF DAY PERIODS CHART: N

TIME OF DAY PRICE PERIOD DESIGNATIONS N

Summer season June, July, Aug, Sept

Hour Starting	Hour Ending	Sun	Mon	Tue	Wed	Thu	Fri	Sat
12:00 AM	1:00 AM	Off	Off	Off	Off	Off	Off	Off
1:00 AM	2:00 AM	Off	Off	Off	Off	Off	Off	Off
2:00 AM	3:00 AM	Off	Off	Off	Off	Off	Off	Off
3:00 AM	4:00 AM	Off	Off	Off	Off	Off	Off	Off
4:00 AM	5:00 AM	Off	Off	Off	Off	Off	Off	Off
5:00 AM	6:00 AM	Off	Off	Off	Off	Off	Off	Off
6:00 AM	7:00 AM	Off	Off	Off	Off	Off	Off	Off
7:00 AM	8:00 AM	Off	Off	Off	Off	Off	Off	Off
8:00 AM	9:00 AM	Off	Off	Off	Off	Off	Off	Off
9:00 AM	10:00 AM	Off	Off	Off	Off	Off	Off	Off
10:00 AM	11:00 AM	Off	Off	Off	Off	Off	Off	Off
11:00 AM	12:00 PM	Off	Off	Off	Off	Off	Off	Off
12:00 PM	1:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
1:00 PM	2:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
2:00 PM	3:00 PM	Mid	On	On	On	On	On	Mid
3:00 PM	4:00 PM	Mid	On	On	On	On	On	Mid
4:00 PM	5:00 PM	Mid	On	On	On	On	On	Mid
5:00 PM	6:00 PM	Mid	On	On	On	On	On	Mid
6:00 PM	7:00 PM	Mid	On	On	On	On	On	Mid
7:00 PM	8:00 PM	Mid	On	On	On	On	On	Mid
8:00 PM	9:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
9:00 PM	10:00 PM	Off	Off	Off	Off	Off	Off	Off
10:00 PM	11:00 PM	Off	Off	Off	Off	Off	Off	Off
11:00 PM	12:00 AM	Off	Off	Off	Off	Off	Off	Off

Winter season Oct through May

Hour Starting	Hour Ending	Sun	Mon	Tue	Wed	Thu	Fri	Sat
12:00 AM	1:00 AM	Off	Off	Off	Off	Off	Off	Off
1:00 AM	2:00 AM	Off	Off	Off	Off	Off	Off	Off
2:00 AM	3:00 AM	Off	Off	Off	Off	Off	Off	Off
3:00 AM	4:00 AM	Off	Off	Off	Off	Off	Off	Off
4:00 AM	5:00 AM	Off	Off	Off	Off	Off	Off	Off
5:00 AM	6:00 AM	Off	Off	Off	Off	Off	Off	Off
6:00 AM	7:00 AM	Off	Mid	Mid	Mid	Mid	Mid	Off
7:00 AM	8:00 AM	Off	On	On	On	On	On	Off
8:00 AM	9:00 AM	Off	On	On	On	On	On	Off
9:00 AM	10:00 AM	Off	On	On	On	On	On	Off
10:00 AM	11:00 AM	Off	Mid	Mid	Mid	Mid	Mid	Off
11:00 AM	12:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
12:00 PM	1:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
1:00 PM	2:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
2:00 PM	3:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
3:00 PM	4:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
4:00 PM	5:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
5:00 PM	6:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
6:00 PM	7:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
7:00 PM	8:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
8:00 PM	9:00 PM	Off	Mid	Mid	Mid	Mid	Mid	Off
9:00 PM	10:00 PM	Off	Off	Off	Off	Off	Off	Off
10:00 PM	11:00 PM	Off	Off	Off	Off	Off	Off	Off
11:00 PM	12:00 AM	Off	Off	Off	Off	Off	Off	Off

"On-peak" price period
"Mid-peak" price period
"Off-peak" price period

N

RESIDENTIAL TIME OF DAY PILOT RULES: **N**

1. The Residential Time of Day Pilot evaluation period will end one year from the start date, or as determined by the Company and approved by the Minnesota Public Utilities Commission. **N** **N**

2. Participation will be voluntary. The Company will invite participants from Rate M101 and Rate M241 to apply and from those applicants 300 participants will be randomly selected. **N** **N**

3. Customers are required to have an online customer portal account. This is essential for customers to monitor their electricity usage. **N** **N**

PURCHASE POWER RIDERS - AVAILABILITY MATRIX

The amount of a bill for service will be modified by any Mandatory Rate Riders that must apply, by any Voluntary Rate Riders selected by the Customer, and charges listed in the General Rules and Regulations.

Availability Matrix	Purchase Power Riders	Net Energy Billing	Simultaneous Purchase & Sale Billing Rate	Time of Day Purchase Rates	Distributed Generation Service Rider	Community-Based Energy Development Rider (CLOSED)
Base Tariffs	Section Numbers	12.01	12.02	12.03	12.04	12.05
RESIDENTIAL & FARM SERVICES						
Residential Service	9.01	✓	✓	✓	✓	✓
Residential Demand Control Service	9.02	✓	✓	✓	✓	✓
Farm Service	9.03	✓	✓	✓	✓	✓
Residential Time of Day Service - Pilot	9.04					
GENERAL SERVICES						
Small General Service (Under 20 kW)	10.01	✓	✓	✓	✓	✓
General Service (20 kW or Greater)	10.02	✓	✓	✓	✓	✓
General Service - Time of Use	10.03	✓	✓	✓	✓	✓
Large General Service	10.04	✓	✓	✓	✓	✓
Large General Service - Time of Day	10.05	✓	✓	✓	✓	✓
Super Large General Service	10.06	✓	✓	✓	✓	✓
Electric Vehicle Direct Current Fast Charger (DCFC) General Service - Time of Day	10.07	✓	✓	✓	✓	✓
OTHER SERVICES						
Standby Service	11.01			✓	✓	✓
Irrigation Service	11.02					
Outdoor Lighting - Energy Only - Dusk to Dawn	11.03					
Outdoor Lighting - Dusk to Dawn (CLOSED)	11.04					
Municipal Pumping Service	11.05	✓	✓	✓	✓	✓
Civil Defense - Fire Sirens	11.06					
LED Street and Area Lighting	11.07					
Key:	✓ = May apply	■ = Mandatory	□ = Not Applicable			

N

C

MANDATORY RIDERS - APPLICABILITY MATRIX

The amount of a bill for service will be modified by any Mandatory Rate Riders that must apply, by any Voluntary Rate Riders selected by the Customer, and charges listed in the General Rules and Regulations.

Applicability Matrix	Mandatory Riders	Energy Adjustment Rider	Conservation Improvement (CIP) Rider	Competitive Rate to Large General Service Rider	Renewable Resource Cost Recovery Rider	Transmission Cost Recovery Rider	Reserved for Future Use	Uplift Program Rider	Environmental Cost Recovery Rider	Energy-Intensive, Trade-Exposed (EITE) Rider	Revenue Decoupling Mechanism (RDM) Rider	Electric Utility Infrastructure Cost Recovery (EUIC) Rider
Tariffs	Section Numbers	13.01	13.02	13.03	13.04	13.05	13.06	13.07	13.08	13.09	13.10	13.11
RESIDENTIAL & FARM SERVICES												
Residential Service	9.01							✓		✓		
Residential Demand Control Service	9.02							✓		✓		
Farm Service	9.03							✓		✓		
Residential Time of Day Service - Pilot	9.04							✓		✓		
GENERAL SERVICES												
Small General Service (Under 20 kW)	10.01									✓		
General Service (20 kW or Greater)	10.02			✓						✓		
General Service - Time of Use	10.03			✓						✓		
Large General Service	10.04			✓						✓		
Large General Service - Time of Day	10.05			✓						✓		
Super Large General Service	10.06									✓		
Electric Vehicle Direct Current Fast Charging (DCFC) General Service - Time of Day	10.07	✓	✓		✓	✓		✓	✓	✓		✓
OTHER SERVICES												
Standby Service	11.01									✓		
Irrigation Service	11.02											
Outdoor Lighting - Energy Only - Dusk to Dawn	11.03									✓		✓
Outdoor Lighting - Dusk to Dawn (CLOSED)	11.04									✓		
Municipal Pumping Service	11.05			✓								
Civil Defense - Fire Sirens	11.06											
LED Street and Area Lighting	11.07									✓		

Key: ✓ = May apply ■ = Mandatory □ = Not Applicable

N

CLASS ENERGY ADJUSTMENT FACTOR (EAF): A separate EAF will be determined for each customer service category defined by customer class. The EAF for each service category is the sum of the Current Period forecasted Cost of Energy multiplied by the applicable EAF Ratio, and the applicable annual true-up.

Service Category	Section	EAF Ratio
Residential	9.01, 9.02, 9.04	1.0555
Farm	9.03	1.0281
General Service	10.01, 10.02, 10.03, 10.07	1.0461
Large General Service non TOD	10.04, 10.06, 14.03	1.0207
Large General Service TOD – Winter On-Peak	10.05, 10.06, 11.01	1.2673
Large General Service TOD – Winter Shoulder	10.05, 10.06, 11.01	1.1106
Large General Service TOD – Winter Off-Peak	10.05, 10.06, 11.01	0.8499
Large General Service TOD – Summer On-Peak	10.05, 10.06, 11.01	1.2664
Large General Service TOD – Summer Shoulder	10.05, 10.06, 11.01	0.9956
Large General Service TOD – Summer Off-Peak	10.05, 10.06, 11.01	0.6896
Irrigation Service	11.02	0.9250
Outdoor Lighting	11.03, 11.04, 11.07	0.8645
OPA	11.05	1.0210
Controlled Service Deferred Load	14.01, 14.06	0.9513
Controlled Service Interruptible	14.04,	0.9883
Controlled Service Off-Peak	14.07, 14.12	0.9164

N

Forecasted Class EAF's are published on OTP's website at https://www.otpco.com/pricing.

In addition, subject to Commission approval, there shall be an annual true-up for any amount collected over or under the actual cost of energy for the twelve months ending December 31 of each year as reported in the Annual Automatic Adjustment True-up report to be filed by March 1 following the most recent reporting period. The annual true-up shall be based on a historic twelve-month period, comparing actual costs per kWh to the forecasted costs per kWh and shall be applied to the subsequent twelve months. The annual true-up will be effective on billings beginning the first of the month following Commission approval of the true-up, or as ordered by the Commission. In years when the over- or under-recovery amount is small (resulting in a true-up rate rounded to less than 0.001¢), the true-up balance will carry over to the next year's true-up.

Service Category	Section	Rate per kWh
Residential	9.01, 9.02, 9.04	0.683 ¢kWh
Farm	9.03	0.689 ¢kWh
General Service	10.01, 10.02, 10.03, 10.07	0.686 ¢kWh
Large General Service	10.04, 10.05, 10.06, 14.02, 14.03	0.682 ¢kWh
Irrigation Service	11.02	0.362 ¢kWh
Outdoor Lighting	11.03, 11.04, 11.07	0.778 ¢kWh
OPA	11.05	0.604 ¢kWh
Controlled Service Deferred	14.01, 14.06	0.657 ¢kWh
Controlled Service Interruptible	14.04	0.709 ¢kWh
Controlled Service Off Peak	14.07, 14.12	0.593 ¢kWh

N

DETERMINATION OF CONSERVATION SURCHARGE RATES: The Conservation Surcharge shall be the Recoverable CIP Tracker Balance multiplied by the Service Category's CIP energy allocator (E2), divided by the corresponding Service Category's projected Minnesota non-exempt retail energy sales for a designated 12-month recovery period. The Surcharge may be adjusted annually by approval of the Minnesota Public Utilities Commission (MNPUC). The Recoverable CIP Tracker Balance is determined as described below, starting with the MNPUC accepted CIP Tracker account balance as of the end of the prior year. From this starting point:

1. Add financial incentives awarded by the MNPUC not reflected in the prior year-end CIP Tracker balance;

2. Add current year CIP approved spending levels.

All costs appropriately charged to the CIP Tracker account shall be eligible for recovery through this Rider and all revenues received from the application of the Conservation Surcharge Factor shall be credited to the CIP Tracker account.

MANDATORY AND VOLUNTARY RIDERS: The amount of a bill for service will be modified by any Mandatory Rate Riders that must apply and by any Voluntary Rate Riders selected by the Customer, unless otherwise noted in this schedule. See Sections 12.00, 13.00 and 14.00 of the Minnesota electric rates for the matrices of riders.

UPLIFT PROGRAM RIDER

DESCRIPTION	RATE CODE
Residential	MUPRS
Farm	MUPFM
General Service	MUPGS
Large General Service	MUPLG
OPA	MUPOP

RULES AND REGULATIONS: Terms and conditions of this electric rate schedule and the General Rules and Regulations govern use of this rider.

APPLICATION OF RIDER: The rider is applicable to electric service under Rate Schedule Sections 9.01, 9.02, 9.03, 9.04, 10.01, 10.02, 10.03, 10.04, 10.05, 10.06, 10.07, 11.02, and 11.05. Customers, as defined in Minn. Stat. 216B.16, Subd. 15, shall be assessed the surcharge. Customers with Low Income Home Energy Assistance Program (LIHEAP) designation in the Company's billing system at the time of billing shall be exempt from the surcharge. N

COST RECOVERY CHARGE: The Uplift Surcharge Rate shall be calculated using the total non-LIHEAP customer count from the prior calendar year. The total customer charge for each applicable customer class will be divided by the aggregate of customer charges for all applicable classes to obtain a percent of total customer charge for each class. The percent of customer charge for each class will be multiplied by the total estimated Uplift Credit and then divided by the class customer count to obtain a flat monthly fee for the applicable class.

RATE:

Service Category	Section	Monthly Charge
Residential	9.01, 9.02, 9.04	$0.24
Farm	9.03	$0.47
General Service	10.01, 10.02, 10.03, 10.07	$0.54
Large General Service	10.04, 10.05, 10.06	$2.30
OPA	11.02, 11.05	$0.50

N

RATE:

Service Category	Section	Per Meter Charge
Residential	9.01, 9.04	$1.43
Residential RDC	9.02	$3.47
Farm	9.03	$3.40
General Service	10.01, 10.02	$5.52
General Service - TOU	10.03, 10.07	$11.33
Large General Service - Primary / Transmission	10.04, 10.05, 10.06, 11.01	$41.24
Large General Service - Secondary	10.04, 10.05, 10.06, 11.01	$13.31
Irrigation Service	11.02	$9.31
Outdoor Lighting (Metered)	11.03	$3.54
OPA (Metered)	11.05	$3.96
Controlled Service Deferred Load	14.01, 14.06	$3.47
Controlled Service Interruptible – Self-Contained	14.04	$3.54
Controlled Service Interruptible – CT Metering	14.04	$14.24
Controlled Service Off Peak	14.07, 14.12	$4.33

N

MANDATORY AND VOLUNTARY RIDERS: The amount of a bill for service will be modified by any Mandatory Rate Riders that must apply and by any Voluntary Rate Riders selected by the Customer, unless otherwise noted in this rider. See Sections 12.00, 13.00 and 14.00 of the Minnesota electric rates for the matrices of riders.

VOLUNTARY RIDERS - AVAILABILITY MATRIX

The amount of a bill for service will be modified by any Mandatory Rate Riders that must apply, by any Voluntary Rate Riders selected by the Customer, and charges listed in the General Rules and Regulations

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Availability Matrix	Voluntary Riders	Water Heating Control Rider	Real Time Pricing Rider	Large General Service Rider	Controlled Service - Interruptible Load Self-Contained and CT Metering Rider	Reserved for Future Use	Controlled Service - Deferred Load Rider	Fixed Time of Service Rider	Air Conditioning Control Rider	Renewable Energy Rider	WAPA Bill Crediting Program Rider	Reserved for Future Use	Off-Peak Electric Vehicle Rider	Reserved for Future Use	My Renewable Energy Credits (My RECs) Rider
Base Tariffs	Section Numbers	14.01	14.02	14.03	14.04	14.05	14.06	14.07	14.08	14.09	14.10	14.11	14.12	14.13	14.14
RESIDENTIAL & FARM SERVICES															
Residential Service	9.01	✓			✓		✓	✓	✓	✓	✓		✓		
Residential Demand Control Service	9.02	✓							✓	✓	✓		✓		
Farm Service	9.03	✓			✓		✓	✓	✓	✓	✓		✓		✓
Residential Time of Day Service - Pilot	9.04									✓					
GENERAL SERVICES															
Small General Service (Under 20 kW)	10.01	✓			✓		✓	✓	✓	✓	✓		✓		✓
General Service (20 kW or Greater)	10.02	✓	✓		✓		✓	✓	✓	✓	✓		✓		✓
General Service - Time of Use	10.03	✓	✓							✓	✓		✓		✓
Large General Service	10.04	✓	✓	✓	✓		✓	✓		✓	✓		✓		✓
Large General Service - Time of Day	10.05	✓	✓	✓	✓		✓	✓		✓	✓		✓		✓
Super Large General Service	10.06	✓	✓	✓	✓		✓	✓		✓	✓		✓		✓
Electric Vehicle Direct Current Fast Charging (DCFC) General Service - Time of Day	10.07									✓					✓
OTHER SERVICES															
Standby Service	11.01														✓
Irrigation Service	11.02										✓				✓
Outdoor Lighting - Energy Only - Dusk to Dawn	11.03										✓				✓
Outdoor Lighting - Dusk to Dawn (CLOSED)	11.04										✓				✓
Municipal Pumping Service	11.05	✓	✓		✓		✓	✓		✓	✓		✓		✓
Civil Defense - Fire Sirens	11.06														✓
LED Street and Area Lighting	11.07										✓				✓
Key:	✓ = May apply	■ = Mandatory	☐ = Not Applicable												

N

C

Customer notice

The Minnesota Public Utilities Commission approved a new Residential Time of Day Pilot Rate schedule as well as language updates for several other rate schedules to implement this new rate. Rate schedule updates are listed below and become effective *[INSERT DATE]*.

Tariff schedules - Applicable to electric service

Index

Rate schedules
Section 9.04 – NEW Residential Service - Time of Day Pilot
Section 12.00 – Purchase Power Riders – Availability Matrix
Section 13.00 – Mandatory Riders – Applicability Matrix
Section 13.01 – Energy Adjustment Rider
Section 13.02 – Conservation Improvement Project Rider
Section 13.07 – Uplift Program Rider
Section 13.11 – Electric Utility Infrastructure Cost Recovery Rider
Section 14.00 – Voluntary Riders – Availability Matrix

For more information, contact us at 800-257-4044 or visit www.otpco.com/MNRates.

CERTIFICATE OF SERVICE

RE: In the Matter of Otter Tail Power Company's Proposal for a Residential Time of Day Pilot Plan
Docket No. E017/M-23-261

I, Laura Dewey, hereby certify that I have this day served a copy of the following, or a summary thereof, on Will Seuffert and Sharon Ferguson by e-filing, and to all other persons on the attached service list by electronic service or by First Class Mail.

Otter Tail Power Company
Amended Filing

Dated this **20th** day of **September, 2024.**

/s/ LAURA DEWEY
Laura Dewey
Regulatory Filing Coordinator
Otter Tail Power Company
215 South Cascade Street
Fergus Falls MN 56537
(218) 739-8604

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Ray	Choquette	rchoquette@agp.com	Ag Processing Inc.	12700 West Dodge Road PO Box 2047 Omaha, NE 68103-2047	Electronic Service	No	OFF_SL_23-261_M-23-261
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_23-261_M-23-261
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_23-261_M-23-261
Jessica	Fyhrie	jfyhrie@otpco.com	Otter Tail Power Company	PO Box 496 Fergus Falls, MN 56538-0496	Electronic Service	Yes	OFF_SL_23-261_M-23-261
Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_23-261_M-23-261
Nick	Kaneski	nick.kaneski@enbridge.com	Enbridge Energy Company, Inc.	11 East Superior St Ste 125 Duluth, MN 55802	Electronic Service	No	OFF_SL_23-261_M-23-261
James D.	Larson	james.larson@avantenergy.com	Avant Energy Services	220 S 6th St Ste 1300 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_23-261_M-23-261
Kavita	Maini	kmaini@wi.rr.com	KM Energy Consulting, LLC	961 N Lost Woods Rd Oconomowoc, WI 53066	Electronic Service	No	OFF_SL_23-261_M-23-261
Andrew	Moratzka	andrew.moratzka@stoel.com	Stoel Rives LLP	33 South Sixth St Ste 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_23-261_M-23-261
Matthew	Olsen	molsen@otpco.com	Otter Tail Power Company	215 South Cascade Street Fergus Falls, MN 56537	Electronic Service	No	OFF_SL_23-261_M-23-261

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Generic Notice	Regulatory	regulatory_filing_coordinators@otpco.com	Otter Tail Power Company	215 S. Cascade Street Fergus Falls, MN 56537	Electronic Service	No	OFF_SL_23-261_M-23-261
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_23-261_M-23-261
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th Pl E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_23-261_M-23-261
Cary	Stephenson	cStephenson@otpco.com	Otter Tail Power Company	215 South Cascade Street Fergus Falls, MN 56537	Electronic Service	Yes	OFF_SL_23-261_M-23-261
Stuart	Tommerdahl	stommerdahl@otpco.com	Otter Tail Power Company	215 S Cascade St PO Box 496 Fergus Falls, MN 56537	Electronic Service	Yes	OFF_SL_23-261_M-23-261