

Direct Testimony and Schedules
Nicholas N. Paluck

Before the Minnesota Public Utilities Commission
State of Minnesota

In the Matter of the Application of Northern States Power Company
for Authority to Increase Rates for Electric Service in Minnesota

Docket No. E002/GR-21-630
Exhibit__(NNP-1)

Rate Design

October 25, 2021

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2

3 Q. PLEASE STATE YOUR NAME AND POSITION.

4 A. My name is Nicholas Paluck. My position is Rate Consultant for Northern
5 States Power Company, doing business as Xcel Energy (NSPM or the
6 Company).

7

8 Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

9 A. I have 15 years of pricing experience with the Company. I provide rate design,
10 rate-revenue determinations, cost allocations, and other pricing functions for
11 the utility operating subsidiaries of Xcel Energy Inc. My qualifications and
12 experience are further described in Exhibit___(NNP-1), Schedule 1.

13

14 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

15 A. My Direct Testimony presents the Company's revenue determinations and
16 proposed class revenue responsibility and rate design. I also sponsor the
17 Company's rate schedules and tariffs. A summary of the tariff changes
18 proposed in this case is included as Exhibit___(NNP-1), Schedule 2. The
19 proposed changes to rates and tariffs are provided in Volume 2F.

20

21 Q. HOW IS YOUR TESTIMONY ORGANIZED?

22 A. I present the remainder of my testimony in the following sections:

- 23 • *Section II* – Revenue Determination,
24 • *Section III* – Rate Design, and
25 • *Section IV* – Conclusion.

II. REVENUE DETERMINATION

Q. WHAT ARE THE 2022 TEST YEAR ELECTRIC REVENUES FROM SALES AT PRESENT AND PROPOSED RATE LEVELS?

A. Table 1 shows 2022 test year revenues at present and proposed rates for the NSPM-Minnesota electric jurisdiction. Total rate revenue includes retail rate revenue and other increases. The “other increases” category includes proposed increases in late payment charges, proposed increases in Excess Footage and Winter Construction charges, and the proposed increase in interdepartmental revenue. Total rate revenue corresponds with the itemized retail rate category in our financial statements of operating revenues. The interdepartmental category is interdepartmental revenue at present rates, which corresponds to that itemized category in our financial statements.

Table 1
2022 Test Year Revenue (\$ Thousands)
 NSPM-Minnesota Electric Jurisdiction

	Present	Proposed	Proposed Increase	Percent Increase
Retail Rate Revenue	\$3,255,688	\$3,650,035	\$394,347	12.11%
+Other Increases	0	1,625	1,625	
Total Rate Revenue	\$3,255,688	\$3,651,660	\$395,972	12.16%
Interdepartmental	625	625		
Total + Interdepartmental	\$3,256,313	\$3,652,285	\$395,972	12.16%

*Amounts may not total due to rounding.

Company witness Mr. Benjamin C. Halama presents the 2022 test year total revenue requirement and deficiency in his Direct Testimony. Present and

1 proposed 2022 test year revenues are based on the application of present and
2 proposed rates to the 2022 test year budgeted sales and customer counts
3 supported by Company witness Mr. John M. Goodenough in his Direct
4 Testimony. Proposed rates were developed to recover the 2022 test year
5 revenue requirement.

6
7 Q. WHAT IS THE BASIS FOR THE RATES USED TO DETERMINE PRESENT REVENUE?

8 A. Present rates are the compliance rates from the Investigation into the Effects
9 on Electric and Natural Gas Utility Rates and Services of the 2017 Federal Tax
10 Cuts and Job Act, Docket No. E,G999/CI-17-895, which became effective on
11 June 1, 2019.

12
13 Q. DO PRESENT AND PROPOSED REVENUE INCLUDE REVENUE FROM THE
14 COMPANY'S COST RECOVERY RIDERS?

15 A. Yes. Present revenue for test year 2022 includes revenue from the Transmission
16 Cost Recovery (TCR) rider, the Renewable Energy Standard (RES) rider, the
17 Renewable Development Fund (RDF) rider, and the Conservation
18 Improvement Program (CIP) Adjustment rider, for a total of \$275,166,387.
19 Proposed revenue for test year 2022 includes cost recovery rider revenue only
20 from the RDF Rider of \$37,585,753, with the difference in rider revenue of
21 \$237,580,634 moved to proposed base rates.

22
23 Q. DO YOU INCLUDE FUEL COSTS WHEN DETERMINING PRESENT AND PROPOSED
24 REVENUE?

25 A. Yes, although I also provide schedules that separate out fuel revenues as
26 discussed later in my testimony. As Mr. Halama details in his Direct Testimony,
27 the Company has included fuel expense that is based on the 2022 annual fuel

1 forecast level filed in the Company’s July 30, 2021 Reply Comments in Docket
 2 No. E002/AA-21-295. I have included this fuel expense forecast in total
 3 revenue for rate design elements of the electric rate case filing, including
 4 customer class revenue apportionment, certain rate ratios, and customer notices
 5 that provide total bill impact information. This rate design approach was based
 6 on discussions between the Company and the Department of Commerce,
 7 Division of Energy Resources (Department) and described in Company Reply
 8 Comments filed September 9, 2019 in Docket No. E999/CI-03-802.

9
 10 Q. WHAT ARE THE 2023 ELECTRIC REVENUES FROM SALES AT PRESENT AND
 11 PROPOSED RATE LEVELS?

12 A. Table 2 shows 2023 revenues at present and proposed rates for the NSPM-
 13 Minnesota electric jurisdiction. Proposed 2023 revenues are also presented in
 14 Mr. Halama’s Direct Testimony.

15
 16 **Table 2**
 17 **2023 Plan Year Revenue (\$ Thousands)**
 18 NSPM-Minnesota Electric Jurisdiction

	Present	Proposed	Proposed Increase	Percent Increase
Retail Rate Revenue	\$3,214,206	\$3,758,453	\$544,247	16.93%
+Other Increases	\$0	\$1,876	\$1,876	
Total Rate Revenue	\$3,214,206	\$3,760,329	\$546,123	16.99%
Interdepartmental	\$625	\$625	\$0	
Total + Interdepartmental	\$3,214,831	\$3,760,954	\$546,123	16.99%

19
 20
 21
 22
 23
 24
 25 *Amounts may not total due to rounding.

26
 27 Q. HOW DID YOU DETERMINE PRESENT AND PROPOSED REVENUES FOR 2023?

1 A. Present revenue for the 2023 plan year is based on 2023 sales and the 2023 cost
 2 levels for the TCR, RES, RDF, and CIP Adjustment riders. Proposed 2023
 3 revenue is based on the application of proposed 2023 rates to the 2023 plan
 4 year budgeted sales and customer counts supported by Mr. Goodenough.
 5 Proposed rates were developed to recover the 2023 plan year revenue
 6 requirement.

7
 8 Q. WHAT ARE THE 2024 ELECTRIC REVENUES FROM SALES AT PRESENT AND
 9 PROPOSED RATE LEVELS?

10 A. Table 3 shows 2024 revenues at present and proposed rates for the NSPM-
 11 Minnesota electric jurisdiction. Proposed 2024 revenues are also presented in
 12 Mr. Halama’s Direct Testimony.

13
 14 **Table 3**
 15 **2024 Plan Year Revenue (\$ Thousands)**

16 NSPM-Minnesota Electric Jurisdiction

	Present	Proposed	Proposed Increase	Percent Increase
Retail Rate Revenue	\$3,190,814	\$3,866,065	\$675,250	21.16%
+Other Increases	\$0	\$2,097	\$2,097	
Total Rate Revenue	\$3,190,814	\$3,868,161	\$677,347	21.23%
Interdepartmental	\$625	\$625	\$0	
Total + Interdepartmental	\$3,191,440	\$3,868,787	\$677,347	21.22%

17
 18
 19
 20
 21
 22 *Amounts may not total due to rounding.

23
 24 Q. HOW DID YOU DETERMINE PRESENT AND PROPOSED REVENUES FOR 2024?

25 A. Present revenue for the 2024 plan year is based on 2024 sales and the 2024 cost
 26 levels for the TCR, RES, RDF, and CIP Adjustment riders. Proposed 2024
 27 revenue is based on the application of proposed 2024 rates to the 2024 plan
 28 year budgeted sales and customer counts supported by Mr. Goodenough.

1 Proposed rates were developed to recover the 2024 plan year revenue
2 requirement.

3
4 Q. DO PRESENT AND PROPOSED REVENUES INCLUDE ECONOMIC DEVELOPMENT
5 DISCOUNTS FROM THE BUSINESS INCENTIVE AND SUSTAINABILITY (BIS) RIDER
6 AND THE COMPETITIVE RESPONSE RIDER (CRR)?

7 A. Yes. The economic development discounts provided through the BIS Rider and
8 CRR tariffs are included in present and proposed revenues. To recognize that
9 these economic development programs apply to customers for a limited term
10 and are difficult to precisely forecast, the Company proposes to update BIS
11 Rider and CRR participation and associated discounts with current information
12 at the time a final rate compliance filing is prepared.

13
14 Q. HAVE YOU PREPARED ANY ADDITIONAL COMPARISONS OF PRESENT AND
15 PROPOSED REVENUES?

16 A. Yes. I prepared the following summary and detailed comparisons of present
17 and proposed rate revenues, as required by Minn. R. 7825.4300, parts A and B,
18 and the Commission's June 17, 2013 Order in the multiyear rate plan Docket
19 No. E,G999/M-12-587:

20 • Sales and Revenue by Rate Schedule

- 21 ○ 2022 Test Year: Exhibit___(NNP-1), Schedule 3, page 1 of 3
- 22 ○ 2023 Plan Year: Schedule 3, page 2 of 3
- 23 ○ 2024 Plan Year: Schedule 3, page 3 of 3

24 • Base and Total Revenue by Major Rate Class

- 25 ○ 2022 Test Year: Exhibit___(NNP-1), Schedule 4, page 1 of 3
- 26 ○ 2023 Plan Year: Schedule 4, page 2 of 3
- 27 ○ 2024 Plan Year: Schedule 4, page 3 of 3

1 • Sales and Revenue by Rate Schedule and Component

- 2 ○ 2022 Test Year and 2023 and 2024 plan years: Required
3 Information, Volume 3.

4
5 Q. ARE ANY FUEL COSTS INCLUDED IN BASE RATES?

6 A. No. All rates and billing quantities are separated into the three categories of
7 base rates, fuel costs, and cost-recovery riders. This is consistent with the rate
8 design presentation in prior Company rate case filings and with the Commission
9 decision in Docket No. E999/CI-03-802. Base rate revenues are considered as
10 total revenue less revenue from fuel cost and cost recovery riders.
11 Exhibit__(NNP-1), Schedule 4 itemizes these three categories by customer
12 class.

13
14 Q. ARE ALL RIDERS CONSIDERED COST RECOVERY RIDERS?

15 A. No. Cost recovery riders are those riders that are designed to recover specific
16 costs, such as the TCR rider. There are other portions of our tariff that are
17 labeled as “riders,” but these are actually rate design tariffs, which for
18 organizational purposes are extensions of the base tariffs for certain customer
19 classes. Several tariffs are classified as riders to indicate a modification to certain
20 terms or conditions of a primary base tariff. For example, the BIS Rider
21 provides temporary discounts to base tariff demand rates for qualifying
22 economic development applications.

23
24 Q. PLEASE DESCRIBE EXHIBIT__(NNP-1), SCHEDULE 5 AND EXHIBIT__(NNP-
25 1), SCHEDULE 6.

26 A. Schedule 5 compares present base rates to proposed 2022, 2023, and 2024 base
27 rates, both with and without fuel costs. Schedule 6 is a monthly bill comparison

1 of the present and proposed 2022, 2023 and 2024 rates at different usage and
2 load factor levels.

3
4 **III. RATE DESIGN**

5
6 **A. Pricing Objectives**

7 Q. DOES THE COMPANY USE PRICING OBJECTIVES TO GUIDE THE DEVELOPMENT
8 OF ITS PROPOSED CLASS REVENUE APPORTIONMENT AND RATE DESIGN?

9 A. Yes. The Company has continued to consider and use the following four
10 objectives to develop pricing proposals and establish rates that:

- 11 1. Produce total annual revenue that matches the corresponding revenue
12 requirement in order to allow the Company a reasonable opportunity to
13 earn its authorized return on investment;
- 14 2. Accurately reflect the resource costs of providing service and, where
15 appropriate, the market value of the service;
- 16 3. Provide sufficient flexibility in pricing levels and provisions for our
17 electric service to remain competitive in the broader energy market; and
- 18 4. Provide reasonable pricing by considering the importance of rate
19 continuity, customer understanding, revenue stability, and administrative
20 practicality.

21
22 Q. HOW DOES THE COMPANY APPLY THESE OBJECTIVES WHEN DESIGNING RATES?

23 A. The first objective is a requirement to precisely match proposed rates to the
24 proposed total revenue requirement. To equitably achieve this objective, and
25 to also provide price incentives for the economically efficient use of energy
26 resources, the rate design process starts by examining and using electric service
27 costs by customer class and rate component. From this objective cost basis, we

1 consider and balance the remaining objectives according to circumstances to
2 develop a proposed rate design that is reasonable and fair for all customers.

3
4 **B. Class Revenue Apportionment**

5 Q. WHAT PROCESS WAS USED TO DEVELOP THE PROPOSED CLASS REVENUE
6 APPORTIONMENT?

7 A. Consistent with our pricing objectives, the starting point for proposed class
8 revenue apportionment is the cost responsibility for each customer class. Class
9 cost responsibility is determined by the Class Cost of Service Studies (CCOSS)
10 sponsored by Company witness Mr. Michael A. Peppin. The resulting cost
11 increases by class are then considered individually, and relative to the total retail
12 increase, to consider whether a full movement to the cost of service should be
13 moderated.

14
15 Q. WHAT ARE THE CLASS COST RESPONSIBILITIES AND PROPOSED CLASS INCREASES
16 IN THIS CASE?

17 A. Table 4 shows the CCOSS class cost responsibilities and the proposed class
18 apportionment for the test year 2022, and the plan years 2023 and 2024.

1 **Table 4**

2 **Cost of Service and Proposed Revenue Apportionment (\$ Thousands)**

3 NSPM-Minnesota Electric Jurisdiction

4

Class	Present	Cost		Proposed Revenue	
	Revenue	Amount	Increase	Amount	Increase
TY 2022					
Residential	\$1,252.2	\$1,448.1	15.64%	\$1,426.0	13.88%
Non-Demand	\$111.1	\$118.2	6.37%	\$121.4	9.24%
C&I Demand	\$1,865.7	\$2,051.0	9.93%	\$2,071.3	11.02%
Lighting	\$26.7	\$32.8	22.74%	\$31.3	17.43%
Total Retail	\$3,255.7	\$3,650.0	12.11%	\$3,650.0	12.11%
PY 2023					
Residential	\$1,246.2	\$1,513.7	21.47%	\$1,485.5	19.20%
Non-Demand	\$109.8	\$121.4	10.60%	\$124.9	13.77%
C&I Demand	\$1,831.6	\$2,089.9	14.11%	\$2,115.8	15.52%
Lighting	\$26.7	\$33.4	25.31%	\$32.3	21.12%
Total Retail	\$3,214.2	\$3,758.5	16.93%	\$3,758.5	16.93%
PY 2024					
Residential	\$1,242.3	\$1,584.0	27.50%	\$1,544.6	24.33%
Non-Demand	\$108.1	\$124.6	15.29%	\$127.8	18.23%
C&I Demand	\$1,813.7	\$2,124.6	17.14%	\$2,161.1	19.15%
Lighting	\$26.7	\$32.9	23.34%	\$32.6	22.25%
Total Retail	\$3,190.8	\$3,866.1	21.16%	\$3,866.1	21.16%

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17 *Amounts may not total due to rounding.

18
19 Q. WHAT IS THE BASIS FOR THE PROPOSED CLASS APPORTIONMENTS IN TABLE 4?

20 A. The basis for all years was a 50 percent movement to cost for all customer
21 classes. This is a balanced proposal that provides both significant rate impact
22 moderation and a significant movement to cost. This reasonable progress
23 closer to cost is possible because progressive movements to cost have been
24 approved by the Commission in past rate cases.

25
26 Q. HOW DO YOU MEASURE CLASS MOVEMENT TO COST?

1 A. This measurement defines the relative position between a class increase set at
2 the average retail increase (no movement to cost) and a class increase set directly
3 at a class cost from the CCOSS (full movement to cost). Using a hypothetical
4 example of a 10 percent average retail increase and a 16 percent class cost
5 increase, the potential cost movement range is 6 percent (16 percent less 10
6 percent). In this example, a proposed 13 percent class increase represents a 50
7 percent cost movement, calculated as 3 percent (13 percent less 10 percent)
8 divided by the full 6 percent range.

9
10 Q. CAN A PROPOSED REVENUE APPORTIONMENT BE ADJUSTED IF A DIFFERENT
11 FINAL REVENUE REQUIREMENT IS APPROVED BY THE COMMISSION?

12 A. Yes. The proportional class revenue responsibilities that are represented by a
13 proposed class revenue apportionment, at a certain total retail increase amount,
14 can be applied to another total retail revenue requirement. This proportional
15 factoring approach is reasonable and has been previously used for the
16 Company's compliance filings in prior rate cases to accurately maintain a
17 Commission-approved class revenue apportionment at a different rate level.
18 This approach can also accommodate revisions to class cost allocations or
19 changes to the percent movements to cost, as well as updated sales and revenue
20 levels.

21
22 **C. Decoupling Proposal**

23 Q. IS THE COMPANY PROPOSING TO CONTINUE A REVENUE DECOUPLING
24 MECHANISM?

25 A. Yes. We are proposing to continue a revenue decoupling mechanism modeled
26 after the current 2021 sales true-up mechanism, which was initially approved by

1 the Commission in 2020 as part of the Company's True-up Petition¹ and again
2 in Docket No. E002/M-20-743 into a permanent decoupling mechanism.
3 Continuing this mechanism is an important tool to protect customers and the
4 Company from the uncertainties around potential transformative rate design
5 changes, such as more precise three-period time-of-use pricing, as well as to
6 align interests on important policy matters, such as conservation measures and
7 expanded demand response options.

8
9 Q. PLEASE DESCRIBE HOW THE 2021 SALES TRUE-UP MECHANISM OPERATES.

10 A. The 2021 sales true-up mechanism is a decoupling mechanism that establishes
11 a rate adjustment to offset annual differences in base rate revenue from the level
12 previously authorized by the Commission, as a result of differing actual sales
13 levels. For 2021, base rate revenue from actual 2021 sales is compared to base
14 rate revenue at the sales level previously authorized by the Commission. This
15 process is also used in rate cases to adjust filed forecast sales to the actual level
16 that occurred for the test year while the case was being heard, and is proposed
17 in this case by Mr. Goodenough.

18
19 The base revenue differences are now determined in detail by class cost of
20 service study categories. This means that the Residential class is separately
21 calculated but several C&I rate schedules are combined into the two main
22 categories of relatively small load non-demand (energy-only) customers and
23 demand-billed customers. There are three additional customer categories that
24 are relatively very small in comparison to the Residential and two C&I

¹ *In the Matter of Northern States Power Company d/b/a Xcel Energy for Approval of True-Up Mechanisms*, Docket No. E002/M-19-688, ORDER APPROVING TRUE-UPS AND REQUIRING XCEL TO WITHDRAW ITS NOTICE OF CHANGE IN RATES AND INTERIM RATE PETITION (March 13, 2020).

1 categories: metered energy-only street lighting service, public authorities and
2 non-retail interdepartmental sales to our gas utility.

3
4 The current mechanism recognizes changes in revenues due to changes in sales
5 without weather-normalization, billing determinants related to sales such as
6 billed demands, and the number of customers. The 2021 revenue comparison
7 will use the same C&I sales growth as assumed in 2018 and will include any
8 discounts and incentive rates that are approved by the Commission.

9
10 Q. AFTER THESE CALCULATIONS ARE COMPLETED, WHAT IS THE NEXT STEP?

11 A. If the actual 2021 base revenues are greater than the 2019 plan year revenues
12 authorized in Docket No. E,G999/CI-17-895,² the difference will be deferred
13 as a regulatory liability and refunded to customers. If the actual 2021 base
14 revenues are lower than the 2019 authorized plan year, the difference will be
15 deferred as a regulatory asset and collected from customers. Refund or
16 surcharge rate factors will be calculated for each applicable customer category
17 based on their deferral amount and the current sales forecast. There is no limit
18 on refund or surcharge levels. Any prior year refund or recovery difference
19 from the prior forecast level will be included in current year deferrals. The
20 resulting refund or surcharge rate factors will be applied to customer energy
21 usage effective April 1, 2022 for 12 months.

22
23 Q. DO YOU PROPOSE TO UPDATE THE BASELINE FOR THE SALES TRUE-UP
24 MEASUREMENT IN THIS CASE?

² IN THE MATTER OF A COMMISSION INVESTIGATION INTO THE EFFECTS ON ELECTRIC AND NATURAL GAS UTILITY RATES AND SERVICES OF THE 2017 FEDERAL TAX ACT.

1 A. Yes. We propose to use the final authorized base revenues in each year of this
2 case as the baseline revenues from which to measure the sales true-up. Beyond
3 the 2024 plan year, we would use the 2024 authorized base revenues as the
4 baseline for the measurement.

5
6 Q. IS THE COMPANY RECOMMENDING ANY CHANGES TO THE 2021 SALES TRUE-UP
7 MECHANISM IN THIS PROCEEDING?

8 A. Yes, we are proposing four changes. First, we propose to exclude the metered
9 lighting category. Metered street lighting service represents only 7 percent of
10 lighting class revenue. Most lighting services have fixed rates per lighting unit
11 that already effectively decouples sales and revenue. The sales revenue
12 associated with the other lighting units that are billed based on metered usage is
13 a function of lighting hours which are consistent from year to year.
14 Furthermore, eliminating decoupling for metered lighting is a practical
15 simplification that would provide consistency and allow the entire lighting
16 category to be exempt from decoupling adjustments.

17
18 Second, we propose to use the C&I-Demand adjustment factor for
19 interdepartmental sales rather than determining and applying a separate factor
20 specific to the interdepartmental category. This is consistent with base rates
21 used for interdepartmental sales.

22
23 Third, we propose to adjust the baseline for any pilots that are approved, such
24 as the commercial TOU pilot.

25
26 Finally, we propose eliminating the sales growth adjustment that has been used
27 for the C&I class. This component is applicable for sales true-up calculations

1 for 2017 through 2021 to acknowledge that the Company made an adjustment
2 to our revenue deficiency to recognize future forecasted sales growth in the C&I
3 class in the prior multi-year rate plan (MYRP) period of 2016-2019. Since we
4 have not made such an adjustment in this rate case, there is no need for a sales
5 growth adjustment.

6
7 Q. ARE THERE ANY OTHER PROPOSED CHANGES THAT COULD BE CONSIDERED IN
8 THIS PROCEEDING?

9 A. Yes, another potential change would be for a more general approach that would
10 establish a single deferral determination and adjustment rate factor for the three
11 rate class categories that represent Residential and C&I customers. This would
12 improve equity, reduce adjustment factor amounts on average, and reduce
13 unnecessary complexity. The Company is not making this proposal at this time,
14 but we would be interested in testimony from other parties during this
15 proceeding on this approach.

16
17 Q. DO THE COMPANY'S PROPOSED TARIFFS INCLUDE THIS UPDATED SALES TRUE-
18 UP MECHANISM?

19 A. Yes, proposed test year 2022 rate sheets include a proposed Revenue
20 Decoupling Rider in Sheet No. 5-118.1. Additionally, we would propose to list
21 this rider as excluded from the RES Rider (Sheet No. 5-146), and incorporate
22 the following language on tariffs for all rate codes to which the rider is
23 applicable:

24
25 **REVENUE DECOUPLING RIDER**

26 Bills are subject to the adjustments provided for in the Revenue Decoupling
27 Rider.

28
29 Tariffs receiving this language are listed in the table below.

1
2 **Table 5**

3 **Applicable Tariffs for Application of Revenue Decoupling Rider Language**

Service	Sheet No.
Residential	5-1
Residential Time of Day	5-2
Residential Time of Use Pilot Program	5-4.1
Residential Electric Vehicle	5-5
Electric Vehicle Home Service Pilot	5-7.1
Residential Electric Vehicle Subscription Pilot	5-8.2
Energy Controlled (Non-Demand Metered)	5-9
Limited Off Peak	5-11.1
Small General	5-22
Small General Time of Day	5-24
General Service	5-27
General Time of Day	5-30
Peak Controlled	5-41
Peak Controlled Time of Day	5-45
Electric Vehicle Fleet Pilot	5-51.1
Electric Vehicle Public Charging Pilot	5-52.1
Multi-Dwelling Unit Electric Vehicle	5-52.5
Light Rail Line	5-72
Small Municipal Pumping	5-85
Municipal Pumping	5-87

22
23 Q. WHAT ONGOING DECOUPLING REPORTING DOES THE COMPANY SUPPORT?

24 A. We support the recommendations in the Department's July 1, 2020 Proposed
25 Streamlining for Annual Revenue Decoupling Evaluation Reports for
26 CenterPoint Energy, Great Plains Natural Gas Company, Minnesota Energy

1 Resources Corporation, and Xcel Energy Electric.³ As part of these
2 recommendations, Xcel Energy would submit annual decoupling evaluations by
3 April 1 each year, reporting on the measured results for the year and energy
4 savings items as outlined in the Department's July 1, 2020 filing. Consistent
5 with the current sales true-up mechanism, factors would be effective April 1
6 through March 31, subject to refund/adjustment as needed.

7
8 Q. IS THE COMPANY MAKING ANY OTHER DECOUPLING PROPOSALS?

9 A. Yes. The Company is proposing an Alternative Interim Proposal in our Interim
10 Rate Petition. Under this proposal, the Company proposes to continue the Sales
11 True-up mechanism during the litigation of the rate case in order to lower the
12 amount recovered through interim rates by the amount recovered in the Sales
13 True-Up mechanism.

14
15 **D. Other Rate Design Dockets**

16 Q. ARE THERE OTHER ONGOING RATE DESIGN DOCKETS?

17 A. Yes. There are several approved or pending dockets related to rate design that
18 will take advantage of the Company's planned roll-out of Advanced Metering
19 Infrastructure (AMI) meters. These rate designs include three-period time-of-
20 use designs for both Residential and demand-metered C&I customers, new
21 demand response rate options, and electric vehicle rate designs for both
22 Residential and Commercial customers. As part of the Company's Integrated
23 Distribution Plan (IDP) proceeding,⁴ on October 1, 2020 the Company filed a

³ Department of Commerce's Proposed Streamlining for Annual Revenue Decoupling Evaluation Reports for CenterPoint Energy, Great Plains Natural Gas Company, Minnesota Energy Resources Corporation, and Xcel Energy Electric, Docket Nos. G008/M-19-558, G004/M-20-335, G011/M-20-332 and E002/M-20-180. (July 1, 2020).

⁴ Docket No. E002/M-19-666.

1 draft rate design roadmap in compliance with a Commission Order. This road
2 map included a summary of approved advanced rate designs and those in
3 development.

4
5 Recognizing that advanced rate design is being reviewed in this ongoing parallel
6 process, and that many of these rates have not been approved and
7 correspondingly do not yet have forecast sales and revenues, a further
8 discussion of these developmental programs is not included in this rate design
9 testimony.

10
11 **E. Low Income Discount**

12 Q. DOES THIS RATE CASE FILING CONTINUE TO INCLUDE THE RECOVERY OF LOW-
13 INCOME PROGRAM COSTS THROUGH BASE RATES?

14 A. Yes. In compliance with the Commission's September 26, 2014 Order in
15 Docket No. E002/M-04-1956 regarding amended Minn. Stat. § 216B.16, subd.
16 14, this filing recognizes our Base low-income program funding in base rates.
17 The primary component of the Low-Income Energy Discount Rider is the
18 Discount (Base) program, which provides a \$15 monthly discount to qualifying
19 customers. Other Rider components are the PowerOn program and the
20 Medical Affordability program. Present and proposed revenue includes Base
21 program benefits that are paid as a monthly discount to participating customers,
22 which is offset by matching Base program surcharges per monthly customer bill
23 for a zero net retail revenue impact. This information is included in detailed
24 rate revenue determinations (Sales and Revenue by Rate Schedule and
25 Component, filed in Required Information, Volume 3).

1 Q. DOES THE DETAILED RATE REVENUE DETERMINATION PRESERVE THE
2 CURRENT CLASS COST ALLOCATION FOR PROGRAM FUNDING?

3 A. Yes. As background, the current program surcharges, which vary by customer
4 classification, are currently recovered as an itemized rider charge on customer
5 bills as a monthly fixed surcharge in the same form as the monthly customer
6 charge. We recognized the current weighted customer charge allocation
7 method for present rate revenue and retained it for proposed rate revenue using
8 proposed customer charge amounts. The Base low-income program surcharges
9 were added to customer charges in the detailed rate revenue determination to
10 recognize this funding allocation.

11

12 Q. HOW HAVE BASE PROGRAM SURCHARGES BEEN UPDATED FOR PROPOSED
13 RATES?

14 A. The class allocation of base low-income program surcharges was updated to
15 reflect proposed customer charges, using the Commission-approved customer
16 charge weighted allocation methodology established in Docket No. E002/M-
17 10-854. The following table compares present and proposed class Base
18 program surcharges for the 2022 test year.

19

20

Table 6

21

Base Program Surcharges – TY 2022

22

Customer Class	Present	Proposed
Residential	\$0.58	\$0.61
C&I Non-Demand	\$0.78	\$0.74
C&I Demand	\$2.34	\$1.67

23

24

1 **F. Rate Design Proposals**

2 Q. IS THE COMPANY PROPOSING ANY SIGNIFICANT RATE DESIGN CHANGES TO
3 CURRENTLY ESTABLISHED TARIFFS IN THIS CASE?

4 A. No. Proposed revisions to established tariffs generally include only minor
5 changes to the relationship between rate components, without significant
6 changes to main rate design structures. More significant changes are described
7 in the following sections.

8
9 *1. Residential and Small Commercial Customer Charges*

10 Q. DOES THE COMPANY PROPOSE TO INCREASE THE MONTHLY CUSTOMER
11 CHARGE FOR RESIDENTIAL AND SMALL COMMERCIAL CUSTOMERS?

12 A. Yes. We propose a \$1.50 increase to the fixed monthly customer charge for
13 Residential and small Commercial customers. This proposal is for the following
14 rate schedules: Residential Service, Residential Time of Day Service, Small
15 General Service, and Small General Time of Day Service. The proposed
16 increase is conservative and will maintain the historical relationships between
17 fixed and variable rates. By representing a reasonable share of the fixed cost of
18 facilities and expenses required to make service available to every customer, this
19 proposal provides more accurate and fair pricing to all customers.

20
21 Q. WOULD PROPOSED INCREASES IN THE FIXED CUSTOMER CHARGE CONTINUE TO
22 PROVIDE A CONSERVATION INCENTIVE FOR CUSTOMERS?

23 A. Yes. The present weighted average customer charge for Residential Service is
24 \$8.72, with present charges ranging from \$8.00 to \$12.00. The proposed
25 weighted average customer charge is \$10.25, which is substantially less than the
26 2022 test year fixed customer-related cost of \$19.79 per month. The Company's
27 proposed fixed customers charges preserve a substantial and appropriate

1 conservation incentive, in balance with an acknowledgement that accurate cost-
2 based pricing improves customer equity. Customer equity is important in cases
3 where a customer's higher than average use is driven by a high number of
4 household members or a customer's desire to use electric appliances that more
5 commonly use natural gas (e.g., water heaters and cooktop stoves).

6
7 Q. IS THE PROPOSED INCREASE ALSO SUPPORTED FROM A MARGINAL COST
8 PERSPECTIVE?

9 A. Yes. The Company commissioned a marginal cost study of customer and local
10 distribution costs to provide an additional perspective on the level of customer
11 charges. A summary of the conclusions of this study is provided in
12 Exhibit___(NNP-1), Schedule 7. This shows that the marginal customer-
13 related cost for the residential class is \$22.10 per month.

14
15 Q. HAVE RESIDENTIAL AND SMALL COMMERCIAL CUSTOMER CHARGES INCREASED
16 IN RECENT YEARS?

17 A. No. These customer charges have remained unchanged in the Company's last
18 two general rate cases, meaning the last increase in these classes' customer
19 charges was eight years ago in 2013. A modest increase in these charges at this
20 time will better reflect current costs and better maintain the historical
21 relationships between fixed and variable rates for these customers. In addition,
22 customers switching to electric appliances will benefit in the form of lower
23 energy charge prices.

24
25 Q. HAS THE COMPANY CONSIDERED ESTABLISHING A REDUCED CUSTOMER
26 CHARGE FOR RESIDENTIAL CUSTOMERS LIVING IN MULTI-FAMILY DWELLINGS?

1 A. Yes. This issue has gained some visibility over recent years, although it is still
2 an uncommon rate distinction throughout the country. To gain preliminary
3 insight into exploring whether economies of scale or other factors create a cost
4 differential in customer-related costs by dwelling type that may be significant
5 enough to recognize in customer charges, the Company asked for that
6 distinction in its commissioned marginal cost study.

7

8 Q. DOES THE COMPANY HAVE THE CAPABILITY TO IDENTIFY RESIDENTIAL
9 CUSTOMERS BY DWELLING TYPE?

10 A. No. This capability would have to be developed in our billing system, including
11 what distinction would separate single and multi-family customers.
12 Additionally, “in-between” situations, such as the handling of duplexes, would
13 have to be resolved. However, using indirect measures such as accounts with
14 apartment numbers, we have estimated that approximately 23 percent of
15 residential main accounts serve apartment customers, which is about 270,000
16 customers.

17

18 Q. HAS THE COMPANY COMPLETED ITS OWN COST ANALYSIS TO DETERMINE ANY
19 COST DIFFERENTIAL BETWEEN SINGLE-FAMILY AND MULTI-FAMILY
20 RESIDENTIAL CUSTOMERS?

21 A. No. However, as indicated above, the marginal study we commissioned
22 included a dwelling type differential using available preliminary information.
23 This study shows a marginal customer-related cost of \$25.46 per month for
24 single family dwellings and \$10.86 per month for multi-family dwellings, which
25 is a monthly cost differential of \$14.60 per customer. This differential is
26 significant but also greater than current residential customer charge levels for
27 non-electric space heating customers. The Company plans to further study the

1 cost differential to more clearly determine the required justification to establish
2 any rate differential.

3
4 Q. WOULD A SEPARATE AND LOWER APARTMENT CUSTOMER CHARGE REQUIRE
5 CHANGES TO THE STANDARD RESIDENTIAL CUSTOMER CHARGE LEVELS?

6 A. Yes. Without changes to the standard customer charge levels, a lower
7 apartment charge would create a substantial revenue reduction as it would apply
8 to almost a quarter of all residential customers. At present customer charge
9 levels, this would severely reduce the equitable recovery of fixed costs, and this
10 concern would be compounded at the proposed rate level. If a multi-dwelling
11 rate differential is ultimately established, the Company recommends approval
12 of its proposed \$1.50 increase to existing customer charges as well as an
13 additional increase to recover a share of a multi-family charge differential. As
14 an example, fully offsetting a \$4 reduction in a multi-family dwelling customer
15 charge would require an approximate \$1 increase in all residential customer
16 charges including those for multi-family dwelling customers.

17
18 Q. WHAT STEPS DOES THE COMPANY RECOMMEND FOR CONTINUING TO EXAMINE
19 THIS IDEA?

20 A. We plan to continue our cost analysis and determine how customer
21 identification and billing changes could be made. We are also interested in
22 learning the perspectives of other parties throughout the rate case proceeding.
23 One concern about establishing a customer charge differential in this
24 proceeding is that the impact of a multi-dwelling rate differential is not included
25 in the typical bill impacts included in customer notices.

1 2. *Residential Service*

2 Q. PLEASE DESCRIBE THE PROPOSED RATE DESIGN FOR RESIDENTIAL SERVICE.

3 A. No significant changes are proposed to the rate design for Residential Service.
4 The overall 2022 test year proposed increase of 13.88 percent for Residential
5 Service is distributed as a 14.01 percent increase for standard non-heating
6 service and of 12.76 percent increase for electric space heating service,
7 consistent with the cost of service differential.

8
9 3. *Residential Controlled Air Conditioning and Water Heating Rider*

10 Q. PLEASE DESCRIBE THE COMPANY’S PROPOSED REVISIONS TO THE RESIDENTIAL
11 CONTROLLED AIR CONDITIONING AND WATER HEATING RIDER, A DIRECT
12 LOAD CONTROL PROGRAM KNOWN AS SAVER’S SWITCH.

13 A. Residential Service customers with central air conditioning have the option of
14 participating in our Saver’s Switch program that provides a discount for control
15 of their air conditioner, which is provided through the Residential Controlled
16 Air Conditioning and Water Heating Rider. An additional discount is available
17 to customers with an electric water heater that can also be controlled.

18
19 The current rate design provides a 15 percent discount on energy and fuel cost
20 charges during the four summer season months for controlled air-conditioning.
21 If participating air-conditioning customers also have an electric water heater, an
22 additional 2 percent discount during every month is available for controlled
23 water heating. This design was established when the base cost of fuel was
24 included in energy rates. When all fuel costs were moved from base energy rates
25 into a separate fuel cost charge in 2007, it became necessary to apply the percent
26 discounts to both energy and fuel charges to retain the same discount amounts,
27 substantially increasing administrative complexity.

1 The discount levels were created when energy rates were significantly lower than
2 today and the cost of new peaking generation was much higher than it is today.
3 As a result, the discount amount for program participation is no longer
4 consistent with the benefits provided by this long-standing demand response
5 option. In addition, in 2017, we began offering an additional residential load
6 control program, AC Rewards, which provides customers the opportunity to
7 install smart thermostats at a discounted cost in their homes and control
8 demand through the thermostat itself with a customer incentive of \$25 per
9 summer.

10
11 The Company proposes to adjust the Residential Controlled Air Conditioning
12 and Water Heating Rider to more closely align program incentives with
13 customer and utility benefits. We propose to revise the air-conditioning
14 incentive structure to a flat monthly bill credit of \$10 for the months of June-
15 September (\$40 per year). For controlled electric water heating, the additional
16 incentive is proposed as \$2 every billing month (\$24 per year). This proposed
17 rate structure revision, with the corresponding credit levels, was approved by
18 the Commission for the Residential Time-of-Use Pilot Program.⁵

19
20 Q. HOW DO CURRENT INCENTIVES FOR THE SAVER'S SWITCH PROGRAM COMPARE
21 TO PROPOSED CREDITS?

22 A. The majority of active Saver's Switch program participants today receive an
23 annual credit less than \$60. For the year 2019, the median annual credit was
24 \$56.59. Although the proposed \$40 annual credit is lower, it is commonly used
25 for comparable direct load control programs across the country and has been

⁵ Docket No. E002/M-17-775.

1 successfully used for years in our Colorado jurisdiction. Our higher energy use
2 customers will see a significant drop in their incentive, but these customers may
3 be better served under a different demand response program such as our AC
4 Rewards program that controls air-conditioning load through a smart
5 thermostat and also has the benefit of giving customers more discretion over
6 their controllable load.

7
8 Q. WHAT IS THE VALUE OF THE SAVER'S SWITCH PROGRAM?

9 A. Our recent analysis of the Saver's Switch program, including avoided generation
10 capacity and energy costs on the system, and the costs of the program, including
11 the cost of switches, advertising costs to recruit new participants and
12 administration costs to operate the system, show an annual net benefit of
13 approximately \$30 per customer switch.

14
15 Although this analysis indicates that the appropriate credit could be less than
16 the proposed \$40 annual credit, we are continuing efforts to make the program
17 more cost-effective by performing annual tests on the equipment to maximize
18 effectiveness and to pursue cost savings in the switch equipment. The ability
19 of the residential Saver's Switch program to control 400 MW of load may also
20 prove more valuable over time as a hedge against possible future spikes in
21 capacity prices. The Company is also looking at other control strategies across
22 all our demand response programs to integrate renewables, provide load relief
23 at the distribution level, and to minimize energy costs. Work to appropriately
24 assess these emerging value streams is still in the early stages, but these value
25 streams may be significant in the future. For these reasons, the Company
26 believes a \$40 annual credit per customer switch is appropriate.

1 Q. WHAT IS THE EXPECTED IMPACT OF THE PROPOSED CHANGE TO THE
2 INCENTIVE AMOUNT AND STRUCTURE FOR THE SAVER'S SWITCH PROGRAM?

3 A. Although we do not anticipate a loss of Saver's Switch customers as a result of
4 this incentive change, the final result is difficult to predict.⁶ Some customers
5 may find it helpful to have a defined fixed credit amount rather than a
6 percentage discount, which may encourage customers who have resisted
7 participation in the past. Customers with lower energy usage will also benefit
8 from the proposed incentive design. Additionally, customers that are no longer
9 interested in participating in Saver's Switch will be offered the option of
10 participating in AC Rewards which includes a discounted smart thermostat.

11

12 4. *C&I Demand Class Rate Design*

13 a. *Base Energy and Demand Rates*

14 Q. HOW DID YOU DEVELOP THE PROPOSED ENERGY AND DEMAND RATES FOR THE
15 C&I DEMAND CLASS?

16 A. The primary consideration was maintaining a similar ratio between demand and
17 energy rates as in present rates to limit rate design changes. This also has the
18 effect of maintaining similar percent bill increases at all customer load factor
19 levels, as shown in Schedule 6 for load factors defined at the 200, 400, and 600
20 hours-use levels.

21

22 b. *Interruptible Service*

23 Q. IS THE COMPANY PROPOSING AN INCREASE IN THE INTERRUPTIBLE SERVICE
24 DISCOUNTS?

⁶ Florida Power and Light completed a transition to a lower incentive for direct load control (similar to Saver's Switch) in 2015. They found approximately 20 percent of customers did move off the rate; however, the program today is the only program in the nation larger than Xcel Energy's program. See Florida Power and Light's filings at: <http://www.floridapsc.com/library/filings/2015/05165-2015/05165-2015.pdf#search=Docket%20No.%20150085-EG>.

1 A. Yes. A moderate increase is proposed for interruptible service discounts. This
 2 provides proposed increases less than 1 percent greater than those for firm
 3 service customers. The proposed discounts reinstate the levels that were
 4 established in rates effective January 2019, which were reduced with other rate
 5 components when rates were reduced in June 2019 based on the Federal Tax
 6 Cut and Jobs Act. The only exception is the discount for the lowest value
 7 service distinction of Tier 2, Performance Factor A. The effective discount for
 8 interruptible service is the difference between firm and controllable demand
 9 charges. The proposed increase to the total amount of demand charge
 10 discounts is 4.46 percent. The following table compares present and proposed
 11 discounts by Tier and Performance Factor (PF) category of interruptible service.

12
 13 **Table 7**
 14 **Present and Proposed Interruptible Discounts**
 15 **NSPM-Minnesota Electric Jurisdiction**
 16 (Average Monthly Discount per kW)

Tier-PF	2-C	2-B	2-A	1-C	1-B	1-SN
Present	\$4.58	\$4.06	\$3.04	\$5.36	\$4.77	\$5.83
Proposed	\$4.80	\$4.26	\$3.13	\$5.61	\$4.98	\$6.11
Increase	\$0.22	\$0.20	\$0.09	\$0.25	\$0.21	\$0.28
Increase %	4.8%	4.9%	3.0%	4.6%	4.4%	4.8%

17
 18
 19
 20
 21
 22 Q. IS THE COMPANY PROPOSING ANY ADDITIONS TO THE RULES FOR APPLICATION
 23 OF PEAK CONTROLLED SERVICES TARIFF?

24 A. Yes. Two additions are proposed. The first addition is proposed rule no. 4
 25 requiring that customers provide reliable contact information for the purpose
 26 of receiving control period notifications. This is an essential requirement that
 27 has largely been followed by customers without a formal rule because it is also

1 in their best interest to avoid control failure charges. However, based on recent
2 difficulty with reliably contacting certain customers indicates that a formal rule
3 may be a helpful addition.

4
5 The second clarification is proposed rule no. 8 regarding new Company testing
6 requirements that are required by the Midcontinent Independent System
7 Operator (MISO). In their FERC filing in Docket ER19-651, MISO stated the
8 following about testing requirements:

9 This proposal, along with the concomitant LMR (Load Modifying
10 Resources) availability filing (Docket ER19-650), is expected to
11 provide MISO's operators with greater certainty regarding the ability
12 of DR (Demand Response) to curtail load during an emergency, by
13 requiring an annual demonstration that may be satisfied by meeting a
14 curtailment instruction or submitting the results of a real power test
15 for such resources prior to qualification in the Planning Resource
16 Auction. MISO believes these enhancements are critical given the
17 increasing operational dependence on LMRs to maintain system
18 reliability and resilience.

19
20 Real power tests will provide more certainty regarding the level of load relief
21 that will be available during MISO emergency events and the proposed rule will
22 document this requirement.

23
24 Q. IS THE COMPANY PROPOSING ANY ADDITIONAL CHANGES TO THE
25 INTERRUPTIBLE TARIFF?

26 A. Yes. The Company proposes to eliminate the Annual Minimum Demand
27 Charge (AMDC) provision that sets an annual minimum demand charge base
28 highest monthly demand (kW). Per the Company's tariff, the Annual Minimum
29 Demand Charge shall be no less than six times the average monthly Firm
30 Demand Charge per kW times the maximum Predetermined Demand, plus six

1 times the Controllable Demand Charge per kW times the maximum
2 Controllable Demand.

3
4 Q. WHY IS THE COMPANY PROPOSING TO REMOVE THE AMDC COMPONENT OF
5 THE TARIFF?

6 A. The AMDC is a complicated provision to bill and is rarely employed. The
7 removal of the AMDC is a customer friendly change that simplifies and
8 streamlines the interruptible tariff.

9
10 *c. Real Time Pricing*

11 Q. DO THE COMPANY'S PROPOSED TARIFFS INCLUDE REAL TIME PRICING (RTP)
12 SERVICE?

13 A. No. The Company proposes cancelling the RTP Service tariff, which is more
14 of a complicated time-of-use rate design with pre-established pricing than a pure
15 RTP design based on market conditions. The current RTP design was
16 established in 2004 and has never attracted more than two customers at the
17 same time. Currently, there is one customer with three accounts that began
18 RTP service in mid-2018. This customer was informed in early 2018 of the
19 Company's plan to propose cancellation of RTP service in its next rate case
20 filing.

21
22 Q. WHY IS THE COMPANY PROPOSING TO CANCEL RTP SERVICE?

23 A. The essential design and rate relationships in the RTP tariff, which have
24 remained unchanged since it was first established 2004, require a comprehensive
25 refresh requiring substantial analysis. This use of resources would not be
26 productive for a tariff that has rarely been used. Cancelling RTP Service would
27 allow more productive use of resources for rate designs with greater potential

1 and appeal to customers, beyond the single customer currently taking RTP
2 service. Examples of tariffs with greater potential include the approved Peak
3 Partner Rewards tariff for optional interruptible service in Docket No.
4 E,G002/CIP-16-155, the pending three-period C&I TOU tariff that was filed
5 in January 2020 in Docket No. E002/M-20-86 with a compliance filing
6 upcoming in January of 2022, and the proposed Peak Flex Credit Rider Pilot
7 that was filed February 1, 2021 in Docket No.E002/M-21-101.

8
9 *d. Voltage Discounts*

10 Q. IS THE COMPANY PROPOSING ANY REVISIONS TO THE VOLTAGE DISCOUNTS
11 THAT ARE A PART OF THE C&I DEMAND TARIFFS?

12 A. Yes. Proposed voltage discounts are shown in Exhibit___(NNP-1), Schedule
13 8, pages 1 through 4. Demand charge voltage discounts were updated based on
14 current cost levels and energy charge voltage discounts were updated for the
15 proposed level of base energy and fuel charges.

16
17 *e. General Time of Day Service*

18 Q. DOES THE COMPANY CURRENTLY HAVE A TIME OF DAY (TOD) TARIFF FOR
19 C&I DEMAND CUSTOMERS?

20 A. Yes. The existing General Time of Day Service tariff is a two-period time-of-
21 use rate design that was originally established around 1980, using a 12-hour on-
22 peak period of 9 a.m. to 9 p.m. during weekdays. An Energy Charge Credit
23 provision that was later added to the tariff efficiently provides a partial three-
24 period TOU price signal by lowering the price of energy that typically occurs in
25 the middle of the 12-hour off-peak period. The interruptible service
26 counterpart to this tariff is the Peak-Controlled Time of Day Service tariff.
27 These tariffs are optional to customers with loads under 1,000 kW and required

1 for customers with loads above that level. Relative to the C&I Demand class,
2 these tariffs are used by 11 percent of customers and represent 53 percent of
3 the kWh sales.

4
5 Q. IS THE COMPANY DEVELOPING A COMPLIANCE PILOT FOR A NEW C&I DEMAND
6 TIME OF USE (TOU) TARIFF?

7 A. Yes. A new three-period TOU tariff was proposed January 17, 2020 in a
8 miscellaneous filing at the present rate level (Docket No. E002/M-20-86) and
9 the Commission ordered the Company to develop a two pilot pricing structures.
10 This tariff was originally filed at the proposed rate level in the Company's
11 November 2019 rate case filing that was later withdrawn. This docket is not
12 further addressed in this rate case based on its expected implementation timeline
13 if approved by the Commission. Necessary enabling technology such as AMI,
14 is needed to calibrate the rate to be at a consistent rate level with other C&I
15 tariffs and to develop corresponding interruptible service revisions.

16
17 *f. Business Incentive and Sustainability (BIS) Rider Tariff*

18 Q. CAN YOU PLEASE PROVIDE AN OVERVIEW OF THE BIS RIDER?

19 A. The BIS Rider is an economic development incentive that is available to new
20 and existing demand-metered commercial and industrial customers with new or
21 additional load of 350 kW or greater. Enrolled customers receive discounts on
22 their demand-metered rate schedule in years one to five and return to normal
23 charges in year six. The Company proposed the BIS Rider in Docket No.
24 E002/GR-12-961 to address the need to grow load efficiently to contribute to
25 the overall fixed costs of the system. The BIS Rider requires, among other
26 things, (1) that prospective customers have an energy audit and participate in
27 our energy efficiency programs to ensure the load growth is efficient and (2) an

1 analysis of the necessary investment to serve a prospective BIS Rider customer
2 to ensure that other customers are not subsidizing an expansion by paying for
3 incremental distribution investments that are not justified by the expected
4 incremental revenues. The BIS Rider tariff permits the Company to seek
5 recovery of the BIS Rider discounts. The final rates compliance filing for our
6 last rate case, Docket No. E002/GR-15-826, included recovery of \$379,000 in
7 BIS Rider discounts associated with qualifying actual year 2016 billed kW.
8 Present revenue for test year 2022 and plan years 2023 and 2024 includes a total
9 BIS Rider discount of \$456,396.

10
11 Q. IS THE COMPANY PROPOSING ANY CHANGES TO THE BIS RIDER TARIFF?

12 A. Yes. The Company is proposing an additional discretionary discount to the off-
13 peak base energy rate of 50 percent, applicable only to incremental loads of
14 more than 5 MW that have a minimum load factor of 70 percent. The primary
15 purpose of this proposal is to improve the Company's position in the highly
16 competitive and growing market for data centers. Data centers typically have
17 large load levels that can range to over 100 MW and can provide a substantial
18 large-term contribution to a utility's fixed cost. Potential data center customers
19 are clearly aware their loads are attractive to utilities and their locational
20 flexibility compounds the level of competition for their loads.

21
22 Q. WHAT IS THE BASIS FOR THE COMPANY'S PROPOSED ADDITIONAL DISCOUNT?

23 A. An incremental and discretionary off-peak base energy rate discount appeals to
24 higher load factor customers such as data centers. This design also minimizes
25 the linkage between new load and increased peak demand, which is a specific
26 interest included in the Commission's March 11, 2020 Order in Docket No.
27 E002/GR-12-961. Further, it recognizes the increasing availability of renewable

1 wind generation during the current off-peak hours of 9 P.M. through 9 A.M.
2 Assuming off-peak sales are 65 percent of total sales, this proposal would reduce
3 the average rate per kWh by approximately 0.8¢ per kWh at present rates and
4 by 1.1¢ per kWh at proposed test year 2022 rates. Fuel cost charges would
5 remain with no change.

6
7 The addition of new efficient load benefits the Company's entire system and
8 customer base because it allows fixed system costs to be spread more broadly.
9 The proposed BIS Rider tariff change will help attract new, efficient growth by
10 data centers. It will also not discourage conservation. Data center loads are
11 occurring throughout the country and the proposed temporary discount will
12 only serve to improve the Company's ability to attract those loads for the benefit
13 of all our customers.

14
15 *5. Street Lighting*

16 Q. DOES THE PROPOSED INCREASE FOR THE LIGHTING CLASS VARY BY RATE
17 SCHEDULE TO RECOGNIZE COST DIFFERENTIALS BY SUBCATEGORY WITHIN THE
18 LIGHTING CLASS?

19 A. Yes. The proposed percent revenue increases for each lighting rate schedule
20 recognize lighting sub-category cost differences in the CCOSS. Street lighting
21 for municipal customers includes the System and Energy service cost categories.
22 System service is full-service lighting tariff that includes the lighting system,
23 energy, maintenance, and repairs. The Energy-only category includes the flat
24 rate Street Lighting Energy Service (Closed) rate schedule and the Street
25 Lighting Energy Service – Metered rate schedule. Protective lighting service is
26 full-service security lighting tariff that is available for Residential and
27 Commercial customers. The proposed total Lighting class increase is 17.4

1 percent for test year 2022. The higher relative cost increase indicated by the
2 CCOSS for System service was moderated to a proposed increase of 20.3
3 percent. The corresponding proposed increases are 19.0 percent for Protective
4 lighting and 6.2 percent for the Energy-only lighting category.

5
6 Q. HAS THE COMPANY INCLUDED THE COST AND SAVINGS RELATED TO LIGHT
7 EMITTING DIODE (LED) TECHNOLOGY RATE DESIGN IN THIS CASE?

8 A. Yes. My testimony includes information on both costs and cost savings that
9 were used to develop LED rates, and I also provide references to other
10 Company witnesses that offer additional related information.

11
12 Q. WHAT BENEFITS HAVE BEEN EXPERIENCED FROM THE COMPANY'S PROGRAM
13 TO CONVERT OLDER TECHNOLOGY LIGHTING FIXTURES TO LED
14 TECHNOLOGY, FOR COMPANY-OWNED LIGHTING PROVIDED THROUGH THE
15 STREET LIGHTING SYSTEM SERVICE TARIFF?

16 A. The Company has completed its mass conversion program to replace High
17 Pressure Sodium (HPS) fixtures with much more energy efficient LED fixtures,
18 which has reduced energy usage for this lighting by over 50 percent. This
19 directly reduces fuel costs, with an estimated annual savings of over \$600,000,
20 as detailed in Exhibit___(NNP-1), Schedule 9. The new LED fixtures have also
21 reduced lighting outages by 86 percent, as discussed in the Direct Testimony of
22 Company witness Ms. Kelly A. Bloch.

23
24 Q. HAS THE REDUCED COST FROM THE LOWER ENERGY USAGE OF THESE LED
25 FIXTURES BEEN RECOGNIZED?

26 A. Yes. Lower LED energy usage also provides the benefit of reducing lighting
27 costs through lower class demand and energy allocations. This is recognized in

1 the CCOSS sponsored by Mr. Peppin. The estimated lighting cost reductions
2 for the test year 2022 are \$1,387,000 in energy-related costs and \$826,000 in
3 demand-related costs from the LED fixture conversion program. These figures
4 were calculated by comparing the 2022 CCOSS sponsored by Mr. Peppin with
5 the same 2022 CCOSS that instead assumes all System Service streetlights have
6 HPS fixtures instead of the existing LED fixtures.

7
8 Q. WHAT LED COSTS HAVE BEEN INCLUDED TO CALCULATE STREETLIGHTING
9 RATES IN THIS CASE?

10 A. First, the Company has incorporated all the LED fixture costs which are direct
11 assigned to the Lighting class. Second, the Company has also incorporated the
12 LED fixture deferral amount. The LED deferral amount is the difference
13 between the annual revenue requirements of LED fixtures since the Company
14 began installing them in 2016 and fixture related revenue collected via the LED
15 lighting rates. The LED fixture deferral amount incorporated in this case is
16 \$410,155.

17
18 Q. DOES THE COMPANY PROPOSE ANY OTHER CHANGES TO THE LIGHTING RATES?

19 A. Yes. The Company proposes to add LED rate options for directional lighting
20 in the Automatic Protective Lighting Service tariff.

21
22 Q. WHY IS THE COMPANY PROPOSING THE LED OPTION FOR DIRECTIONAL
23 LIGHTING AT THIS TIME?

24 A. The cost of 250W and 400W equivalent LED directional lighting fixtures have
25 decreased in price to the point where they are now cost-effective option for
26 customers. In addition, lighting fixture manufactures have begun to discontinue
27 production of HPS fixtures and therefore having an LED fixture option may

1 be necessary to be able to continue to provide Automatic Protective Lighting
2 Service to customers over the next several years.

3
4 Q. HAS AN LED OPTION FOR AUTOMATIC PROTECTIVE LIGHTING SERVICE
5 ALREADY BEEN APPROVED?

6 A. Yes, the Commission has approved an LED option for Area Lighting fixtures
7 in the Automatic Protective Lighting Service tariff in Docket No. E002/M-18-
8 729. The proposal for an LED option for Directional Lighting within the same
9 Automatic Protective Lighting Service tariff leverages the same inputs and
10 Commission decisions from that docket. The calculations for the LED option
11 directional lighting service are included in Exhibit____(NNP-1), Schedule 10.

12
13 Q. HOW WOULD THE COMPANY IMPLEMENT THE LED OPTION PRICE?

14 A. The proposal creates a price differential between the current HPS fixture tariff
15 price and the proposed LED fixture option. If approved, the Company would
16 apply that price differential to final Automatic Protective HPS directional
17 lighting prices in this docket. For example, for a 250W equivalent LED fixture
18 option, the Company has calculated the LED fixture tariff option price to be
19 \$0.80 cents lower than the HPS tariff option. Therefore, when the Company
20 calculates final rates in this docket, the Company would include a 250W
21 equivalent LED tariff option that is \$0.80 cents lower than the HPS tariff
22 option. The Company has included LED fixture option in its proposed tariffs
23 in Exhibit____(NNP-1), Schedule 5.

24
25 Q. IS THIS IMPLEMENTATION PLAN SIMILAR TO HOW LED OPTION FOR AREA
26 LIGHTING WAS IMPLEMENTED?

27 A. Yes.

1 6. *Fuel Clause Rider*

2 Q. HAS THE PROPOSED FUEL CLAUSE RIDER BEEN UPDATED FOR THE TEST YEAR
3 2022?

4 A. Yes. The Fuel Adjustment Factor section of the Fuel Clause Rider was updated
5 to be consistent with test year 2022 information. The Fuel Adjustment Factor
6 Ratios by Service Category were updated to test year 2022 based on
7 corresponding updates to Class Cost Ratios and TOD Ratios. These updates
8 were determined using the method approved by the Commission in the
9 Company's previous rate cases. The development of these updates is shown in
10 Exhibit____(NNP-1), Schedule 11.

11
12 **G. Development of 2023 and 2024 Rates**

13 Q. DO THE 2023 AND 2024 RATES SHARE A COMMON RATE DESIGN?

14 A. Yes. The proposed rate design for plan years 2023 and 2024 is consistent with
15 the rate design for test year 2022.

16
17 **IV. CONCLUSION**

18
19 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

20 A. The Company's proposed class revenue apportionment and rate design is
21 reasonable. It serves our pricing objectives that include cost-based pricing and
22 moderation in rate changes.

23
24 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

25 A. Yes, it does.

Statement of Qualifications and Experience

Nicholas N. Paluck

Nicholas Paluck has been employed by Northern States Power Company in pricing positions for 15 years and his current position is Rate Consultant. His job responsibilities include rate design, rate-revenue determinations, and cost allocations for the utility operating subsidiaries of Xcel Energy.

Paluck has supported rate design efforts in proceedings before state regulatory commissions in Minnesota, North Dakota, and South Dakota.

Paluck has presented several topics on rate design at industry conferences.

Paluck received his Bachelor of Arts degree in Economics from the University of Minnesota-Morris and his Master of Business Administration degree from the Carlson School of Management at the University of Minnesota.

Minnesota Electric Rate Book - MPUC No. 2
2022 Proposed Tariff Sheets

Sheet No. 1-1, revision 11 *	Sheet No. 5-8.1, original *
Sheet No. 1-2, revision 11	Sheet No. 5-8.2, revision 3
Sheet No. 1-3, revision 20	Sheet No. 5-8.3, original *
Sheet No. 1-4, revision 19 *	Sheet No. 5-9, revision 31
Sheet No. 3-1, revision 7	Sheet No. 5-10, revision 8 *
Sheet No. 3-1.1, revision 5 *	Sheet No. 5-10.1, revision 5 *
Sheet No. 3-2, revision 6 *	Sheet No. 5-11, revision 34
Sheet No. 3-2.1, revision 5 *	Sheet No. 5-11.1, revision 8 *
Sheet No. 3-3, revision 7	Sheet No. 5-12, revision 9
Sheet No. 3-3.1, revision 6	Sheet No. 5-13, revision 9 *
Sheet No. 3-4, revision 7	Sheet No. 5-14, revision 25
Sheet No. 3-4.1, revision 6	Sheet No. 5-15, revision 11 *
Sheet No. 3-5, revision 7	Sheet No. 5-21, revision 32
Sheet No. 3-5.1, revision 6	Sheet No. 5-22, revision 9
Sheet No. 3-6, revision 7	Sheet No. 5-23, revision 32
Sheet No. 3-6.1, revision 5 *	Sheet No. 5-24, revision 14 *
Sheet No. 3-7, revision 6 *	Sheet No. 5-24.1, revision 13
Sheet No. 3-7.1, revision 4 *	Sheet No. 5-26, revision 32
Sheet No. 3-8, revision 7	Sheet No. 5-27, revision 9
Sheet No. 5-TOC-1, revision 15	Sheet No. 5-28, revision 7 *
Sheet No. 5-TOC-2, revision 20	Sheet No. 5-28.1, revision 5 *
Sheet No. 5-1, revision 32	Sheet No. 5-29, revision 28
Sheet No. 5-1.1, revision 9 *	Sheet No. 5-30, revision 16
Sheet No. 5-2, revision 32	Sheet No. 5-31, revision 8 *
Sheet No. 5-3, revision 12 *	Sheet No. 5-32, revision 6 *
Sheet No. 5-4, revision 6 *	Sheet No. 5-32.1, revision 5 *
Sheet No. 5-4.1, revision 2	Sheet No. 5-40, revision 24
Sheet No. 5-4.2, original *	Sheet No. 5-41, revision 19
Sheet No. 5-4.3, original *	Sheet No. 5-42, revision 6 *
Sheet No. 5-5, revision 20	Sheet No. 5-43, revision 6 *
Sheet No. 5-6, revision 17	Sheet No. 5-44, revision 19
Sheet No. 5-7, revision 6 *	Sheet No. 5-45, revision 26
Sheet No. 5-7.1, revision 1	Sheet No. 5-46, revision 12*
Sheet No. 5-7.2, original *	Sheet No. 5-47, revision 7 *
Sheet No. 5-8, revision 5 *	Sheet No. 5-47.1, revision 6 *
	Sheet No. 5-48, revision 8
	Sheet No. 5-49, revision 7

* = No substantive changes to sheet but included to provide complete tariff.

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2022 Proposed Tariff Sheets

Sheet No. 5-50, revision 7	Sheet No. 5-91, revision 31
Sheet No. 5-51, revision 10	Sheet No. 5-91.1, revision 19 *
Sheet No. 5-51.1, revision 1	Sheet No. 5-91.2, revision 12 *
Sheet No. 5-51.2, original	Sheet No. 5-91.3, revision 20
Sheet No. 5-51.3, original	Sheet No. 5-92, revision 22 *
Sheet No. 5-52, revision 10	Sheet No. 5-92.1, revision 7 *
Sheet No. 5-52.1, revision 1	Sheet No. 5-93, revision 8 *
Sheet No. 5-52.2, original *	Sheet No. 5-93.1, revision 27*
Sheet No. 5-52.3, original *	Sheet No. 5-93.1a, revision 11 *
Sheet No. 5-52.4, original *	Sheet No. 5-93.2, revision 21*
Sheet No. 5-52.5, original *	Sheet No. 5-93.3, revision 20*
Sheet No. 5-52.6, original *	Sheet No. 5-93.4, revision 27 *
Sheet No. 5-64, revision 12	Sheet No. 5-93.5, revision 19 *
Sheet No. 5-65, revision 23	Sheet No. 5-93.6, revision 4 *
Sheet No. 5-65.1, revision 6	Sheet No. 5-93.7, revision 4 *
Sheet No. 5-66, revision 10	Sheet No. 5-93.8, revision 4 *
Sheet No. 5-67, revision 7	Sheet No. 5-93.9, revision 4 *
Sheet No. 5-68, revision 6	Sheet No. 5-93.10, revision 4 *
Sheet No. 5-71, revision 18	Sheet No. 5-93.11, revision 4 *
Sheet No. 5-72, revision 8	Sheet No. 5-93.12, revision 12
Sheet No. 5-73, revision 6 *	Sheet No. 5-93.13, revision 5 *
Sheet No. 5-74, revision 27	Sheet No. 5-94, revision 12 *
Sheet No. 5-74.1, revision 11 *	Sheet No. 5-95, revision 9 *
Sheet No. 5-76, revision 26	Sheet No. 5-96, revision 12 *
Sheet No. 5-77, revision 11 *	Sheet No. 5-97, revision 9
Sheet No. 5-78, revision 30	Sheet No. 5-98, revision 6
Sheet No. 5-78.1, revision 6 *	Sheet No. 5-99, revision 8 *
Sheet No. 5-80, revision 28	Sheet No. 5-99.1, revision 5 *
Sheet No. 5-81, revision 15 *	Sheet No. 5-100, revision 5 *
Sheet No. 5-82, revision 7 *	Sheet No. 5-101, revision 21
Sheet No. 5-83, revision 6 *	Sheet No. 5-101.1, original *
Sheet No. 5-84, revision 6 *	Sheet No. 5-102, revision 14 *
Sheet No. 5-84.1, revision 4 *	Sheet No. 5-103, revision 7 *
Sheet No. 5-85, revision 31	Sheet No. 5-104, revision 8 *
Sheet No. 5-86, revision 7 *	Sheet No. 5-105, revision 8 *
Sheet No. 5-87, revision 32	Sheet No. 5-106, revision 8 *
Sheet No. 5-88, revision 8 *	Sheet No. 5-107, revision 5 *
Sheet No. 5-89, revision 15	Sheet No. 5-108, revision 13

* = No substantive changes to sheet but included to provide complete tariff.

Minnesota Electric Rate Book - MPUC No. 2
2022 Proposed Tariff Sheets

Sheet No. 5-109, revision 15 *	Sheet No. 5-141, revision 4
Sheet No. 5-110, revision 8 *	Sheet No. 5-142, revision 15 *
Sheet No. 5-111, revision 7 *	Sheet No. 5-143, revision 24 *
Sheet No. 5-112, revision 8 *	Sheet No. 5-144, revision 15 *
Sheet No. 5-113, revision 8 *	Sheet No. 5-145, revision 5 *
Sheet No. 5-114, revision 7 *	Sheet No. 5-146, revision 10 *
Sheet No. 5-115, revision 14	Sheet No. 5-147, revision 14 *
Sheet No. 5-116, revision 8*	Sheet No. 5-148, original *
Sheet No. 5-116.1, revision 5 *	Sheet No. 5-149, original *
Sheet No. 5-117, revision 6 *	Sheet No. 5-150, revision 8 *
Sheet No. 5-118, revision 3 *	Sheet No. 5-151, revision 1 *
Sheet No. 5-118.1, original	Sheet No. 5-152, revision 1 *
Sheet No. 5-119, revision 5 *	Sheet No. 5-153, original *
Sheet No. 5-120, revision 5 *	Sheet No. 5-154, original *
Sheet No. 5-121, revision 5 *	Sheet No. 5-155, original *
Sheet No. 5-122, revision 6 *	Sheet No. 5-156, original *
Sheet No. 5-123, revision 7 *	Sheet No. 5-157, original *
Sheet No. 5-124, revision 6 *	Sheet No. 5-158, original *
Sheet No. 5-125, revision 6	Sheet No. 5-159, original *
Sheet No. 5-126, revision 11 *	Sheet No. 6-14, revision 5
Sheet No. 5-131, revision 7 *	Sheet No. 6-14.1, revision 2
Sheet No. 5-132, revision 6 *	Sheet No. 6-17.3, revision 1
Sheet No. 5-133, revision 6 *	Sheet No. 6-23, revision 3
Sheet No. 5-134, revision 7 *	Sheet No. 6-24, revision 3
Sheet No. 5-134.1, revision 6 *	Sheet No. 6-35, revision 2
Sheet No. 5-135, revision 5 *	Sheet No. 7-TOC-1, revision 15
Sheet No. 5-136, revision 8 *	Sheet No. 7-42, revision 2
Sheet No. 5-136.1, revision 7 *	Sheet No. 7-43, revision 2
Sheet No. 5-137, revision 12 *	Sheet No. 10-75, revision 3
Sheet No. 5-138, revision 5 *	
Sheet No. 5-139, revision 4	
Sheet No. 5-140, revision 4	

* = No substantive changes to sheet but included to provide complete tariff.

Summary List of 2022 Tariff Changes

Tariff	Sheet No.	Rate Code	Changes
Table of Contents	1-2		1. Deleted “Real Time Pricing”.
Table of Contents	1-3		1. Added “Interim Rate Surcharge Rider”. 2. Added “Revenue Decoupling Rider.”
Table of Contents	1-4		Updated to include existing tariff sheets: 1. Voluntary Renewable*Connect Rider Service Agreement 2. Voluntary Renewable*Connect Government Rider Service Agreement 3. Customer Mobile Application Terms of Use
Index of Company’s Service Area	3-1 through 3-8		Various service area updates.
Section 5-Table of Contents	5-TOC-1, 5-TOC-2		1. Deleted “Real Time Pricing”. 2. Added “Revenue Decoupling Rider”
Residential Service	5-1	A00, A01, A03	1. Rate changes. 2. Added “Revenue Decoupling Rider” statement.
Residential Time of Day Service	5-2	A02, A04	1. Rate changes. 2. Added “Revenue Decoupling Rider” statement.
Residential Time of Use Pilot Program Service	5-4.1	A72, A74	1. Rate changes. 2. Added “Revenue Decoupling Rider” statement.
Residential Electric Vehicle Service	5-5, 5-6	A08	1. Rate changes. 2. Deleted obsolete language.
Residential Electric Vehicle Pilot Service	5-7.1, 5-8.2	A80, A81, A82, A83	1. Rate changes. 2. Added “Revenue Decoupling Rider” statement.
Energy Controlled Service (Non-Demand Metered)	5-9	A05	1. Rate changes. 2. Added “Revenue Decoupling Rider” statement.
Limited Off Peak Service	5-11	A06	Rate changes.
Limited Off Peak Service	5-12	A06	Rate change.
Automatic Protective Lighting Service	5-14	A07	1. Rate changes. 2. Added proposed LED rates

Summary List of 2022 Tariff Changes

<u>Tariff</u>	<u>Sheet No.</u>	<u>Rate Code</u>	<u>Changes</u>
Small General Service	5-21, 5-22	A09, A10, A11, A13	1. Rate changes. 2. Changed language in Revenue Decoupling Mechanism Rider paragraph.
Small General Time of Day Service	5-23, 5-24.1	A12, A16, A18, A22	Rate changes.
General Service	5-26 5-27	A14	1. Rate changes. 2. Added "Revenue Decoupling Rider" statement.
General Time of Day Service	5-29	A15, A17, A19	Rate changes.
Peak Controlled Service	5-40	A23	Rate changes.
Peak Controlled Time of Day Service	5-44, 5-45	A24	Rate changes.
Rules for Application of Peak Controlled Services	5-48, 5-49, 5-50		1. Added two rules. 2. Renumbered 5-49, 5-50.
Electric Vehicle Fleet Pilot Service	5-51	A87, A88, A89	Rate changes.
Electric Vehicle Public Charging Pilot Service	5-52	A90	Rate changes.
Real Time Pricing Service	5-64, 5-65, 5-65.1, 5-66, 5-67, 5-68	A62 (Firm), A63 (Controllable)	Propose to cancel.
Hiawatha Light Rail Line Tariff	5-71	A29	Rate changes.
Street Lighting System Service	5-74	A30	Rate changes.
Street Lighting Energy Service (Closed)	5-76	A32	Rate changes.
Street Lighting Energy Service – Metered	5-78	A34	Rate changes.
Street Lighting Service – City of St. Paul	5-80	A37	Rate changes.
Small Municipal Pumping Service	5-85	A40	1. Rate changes. 2. Added “Revenue Decoupling Rider” statement.

Summary List of 2022 Tariff Changes

<u>Tariff</u>	<u>Sheet No.</u>	<u>Rate Code</u>	<u>Changes</u>
Municipal Pumping Service	5-87	A41	1. Rate changes. 2. Added “Revenue Decoupling Rider” statement.
Fire and Civil Defense Siren Service	5-89	A42	Rate changes.
Fuel Clause Rider	5-91, 5-91.3		1. Updated ratios. 2. Added “Electric Vehicle Fleet Pilot (A87, A88, A89)” and “Electric Vehicle Public Charging Pilot (A90)” 3. Deleted “Real Time Pricing (A62, A63).
Conservation Improvement Program Adjustment Rider	5-92.1		Rate changes.
Residential Controlled Air Conditioning and Water Heating Rider	5-97, 5-98		Change to rate structure.
Standby Service Rider	5-101		Rate changes.
Supplemental Generation Service Rider	5-108		Rate changes.
Tier 1 Energy Controlled Service Rider	5-115	A27	Rate changes.
Revenue Decoupling Mechanism-Demand Rider	5-118.1		New rider.
Photovoltaic Demand Credit Rider	5-125	A85, A86	Rate changes.
Business Incentive and Sustainability Rider	5-139, 5-140, 5-141, 5-141.1		1. Relocated text. 2. Added off-peak energy charge discount
General Rules and Regulations	6-14		1. Updated payment options. 2. Language change to reflect future AMI meters.
General Rules and Regulations	6-14.1		Clarified language.

Summary List of 2022 Tariff Changes

<u>Tariff</u>	<u>Sheet No.</u>	<u>Rate Code</u>	<u>Changes</u>
General Rules and Regulations	6-17.3		Corrected reference letter.
General Rules and Regulations	6-23, 6-24		Rate changes.
General Rules and Regulations	6-35		Clarified language.
Section 7-Table of Contents	7-TOC-1		Updated to include existing tariff sheets: Customer Mobile Application Terms of Use.
Underground Gas and/or Electric Distribution Agreement	7-42		Deleted extra punctuation.
Underground Gas and/or Electric Distribution Agreement	7-43		Modified Xcel Energy signatory section.
Distributed Generation Standard Interconnection and Power Purchase Tariff	10-75		Corrected spelling.

Minnesota Electric Rate Book - MPUC No. 2
2023 Proposed Tariff Sheets

These sheets only contain rate changes proposed for year 2023

Sheet No. 5-1, revision 32
Sheet No. 5-2, revision 32
Sheet No. 5-4.1, revision 2
Sheet No. 5-5, revision 20
Sheet No. 5-7.1, revision 1
Sheet No. 5-8.2, revision 3
Sheet No. 5-9, revision 31
Sheet No. 5-11, revision 34
Sheet No. 5-12, revision 9
Sheet No. 5-14, revision 25
Sheet No. 5-21, revision 32
Sheet No. 5-23, revision 32
Sheet No. 5-24.1, revision 13
Sheet No. 5-26, revision 32
Sheet No. 5-29, revision 28
Sheet No. 5-40, revision 24
Sheet No. 5-44, revision 19
Sheet No. 5-45, revision 26
Sheet No. 5-51, revision 10
Sheet No. 5-52, revision 10
Sheet No. 5-71, revision 18
Sheet No. 5-74, revision 27
Sheet No. 5-76, revision 26
Sheet No. 5-78, revision 30
Sheet No. 5-80, revision 28
Sheet No. 5-85, revision 31
Sheet No. 5-87, revision 32
Sheet No. 5-89, revision 15
Sheet No. 5-101, revision 21
Sheet No. 5-108, revision 13
Sheet No. 5-115, revision 14
Sheet No. 5-125, revision 6

Summary List of 2023 Tariff Changes

<u>Tariff</u>	<u>Sheet No.</u>	<u>Rate Code</u>	<u>Changes</u>
Residential Service	5-1	A00, A01, A03	Rate changes.
Residential Time of Day Service	5-2	A02, A04	Rate changes.
Residential Time of Use Pilot Program Service	5-4.1	A72, A74	Rate changes.
Residential Electric Vehicle Service	5-5	A08	Rate changes.
Residential Electric Vehicle Pilot Service	5-7.1, 5-8.2	A80, A81, A82, A83	Rate changes.
Energy Controlled Service (Non-Demand Metered)	5-9	A05	Rate changes.
Limited Off Peak Service	5-11	A06	Rate changes.
Limited Off Peak Service	5-12	A06	Rate change.
Automatic Protective Lighting Service	5-14	A07	1. Rate changes. 2. Added proposed LED rates
Small General Service	5-21	A09, A10, A11, A13	Rate changes.
Small General Time of Day Service	5-23, 5-24.1	A12, A16, A18, A22	Rate changes.
General Service	5-26	A14	Rate changes.
General Time of Day Service	5-29	A15, A17, A19	Rate changes.
Peak Controlled Service	5-40	A23	Rate changes.
Peak Controlled Time of Day Service	5-44, 5-45	A24	Rate changes.
Electric Vehicle Fleet Pilot Service	5-51	A87, A88, A89	Rate changes.
Electric Vehicle Public Charging Pilot Service	5-52	A90	Rate changes.
Hiawatha Light Rail Line Tariff	5-71	A29	Rate changes.
Street Lighting System Service	5-74	A30	Rate changes.
Street Lighting Energy Service (Closed)	5-76	A32	Rate changes.

Summary List of 2023 Tariff Changes

<u>Tariff</u>	<u>Sheet No.</u>	<u>Rate Code</u>	<u>Changes</u>
Street Lighting Energy Service – Metered	5-78	A34	Rate changes.
Street Lighting – City of St. Paul	5-80	A37	Rate changes.
Small Municipal Pumping Service	5-85	A40	Rate changes.
Municipal Pumping Service	5-87	A41	Rate changes.
Fire and Civil Defense Siren Service	5-89	A42	Rate changes.
Standby Service Rider	5-101		Rate changes.
Supplemental Generation Service Rider	5-108		Rate changes.
Tier 1 Energy Controlled Service Rider	5-115	A27	Rate changes.
Photovoltaic Demand Credit Rider	5-125	A85, A86	Rate change.

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2024 Proposed Tariff Sheets

These sheets only contain rate changes proposed for year 2024

Sheet No. 5-1, revision 32
Sheet No. 5-2, revision 32
Sheet No. 5-4.1, revision 2
Sheet No. 5-5, revision 20
Sheet No. 5-7.1, revision 1
Sheet No. 5-8.2, revision 3
Sheet No. 5-9, revision 31
Sheet No. 5-11, revision 34
Sheet No. 5-12, revision 9
Sheet No. 5-14, revision 25
Sheet No. 5-21, revision 32
Sheet No. 5-23, revision 32
Sheet No. 5-24.1, revision 13
Sheet No. 5-26, revision 32
Sheet No. 5-29, revision 28
Sheet No. 5-40, revision 24
Sheet No. 5-44, revision 19
Sheet No. 5-45, revision 26
Sheet No. 5-51, revision 10
Sheet No. 5-52, revision 10
Sheet No. 5-71, revision 18
Sheet No. 5-74, revision 27
Sheet No. 5-76, revision 26
Sheet No. 5-78, revision 30
Sheet No. 5-80, revision 28
Sheet No. 5-85, revision 31
Sheet No. 5-87, revision 32
Sheet No. 5-89, revision 15
Sheet No. 5-101, revision 21
Sheet No. 5-108, revision 13
Sheet No. 5-115, revision 14
Sheet No. 5-125, revision 6

Summary List of 2024 Tariff Changes

<u>Tariff</u>	<u>Sheet No.</u>	<u>Rate Code</u>	<u>Changes</u>
Residential Service	5-1	A00, A01, A03	Rate changes.
Residential Time of Day Service	5-2	A02, A04	Rate changes.
Residential Time of Use Pilot Program Service	5-4.1	A72, A74	Rate changes.
Residential Electric Vehicle Service	5-5	A08	Rate changes.
Residential Electric Vehicle Pilot Service	5-7.1, 5-8.2	A80, A81, A82, A83	Rate changes.
Energy Controlled Service (Non-Demand Metered)	5-9	A05	Rate changes.
Limited Off Peak Service	5-11	A06	Rate changes.
Limited Off Peak Service	5-12	A06	Rate change.
Automatic Protective Lighting Service	5-14	A07	1. Rate changes. 2. Added proposed LED rates
Small General Service	5-21	A09, A10, A11, A13	Rate changes.
Small General Time of Day Service	5-23, 5-24.1	A12, A16, A18, A22	Rate changes.
General Service	5-26	A14	Rate changes.
General Time of Day Service	5-29	A15, A17, A19	Rate changes.
Peak Controlled Service	5-40	A23	Rate changes.
Peak Controlled Time of Day Service	5-44, 5-45	A24	Rate changes.
Electric Vehicle Fleet Pilot Service	5-51	A87, A88, A89	Rate changes.
Electric Vehicle Public Charging Pilot Service	5-52	A90	Rate changes.
Hiawatha Light Rail Line Tariff	5-71	A29	Rate changes.
Street Lighting System Service	5-74	A30	Rate changes.
Street Lighting Energy Service (Closed)	5-76	A32	Rate changes.

Summary List of 2024 Tariff Changes

<u>Tariff</u>	<u>Sheet No.</u>	<u>Rate Code</u>	<u>Changes</u>
Street Lighting Energy Service – Metered	5-78	A34	Rate changes.
Street Lighting – City of St. Paul	5-80	A37	Rate changes.
Small Municipal Pumping Service	5-85	A40	Rate changes.
Municipal Pumping Service	5-87	A41	Rate changes.
Fire and Civil Defense Siren Service	5-89	A42	Rate changes.
Standby Service Rider	5-101		Rate changes.
Supplemental Generation Service Rider	5-108		Rate changes.
Tier 1 Energy Controlled Service Rider	5-115	A27	Rate changes.
Photovoltaic Demand Credit Rider	5-125	A85, A86	Rate change.

SALES AND REVENUE BY RATE SCHEDULE

Service Schedule	Average Customers	MWH Sales			Revenues (\$1,000s)							
					Summer		Winter		Annual		Increase	
		Summer	Winter	Annual	Present	Proposed	Present	Proposed	Present	Proposed	Amount	Percent
Residential												
Residential	1,185,556	3,229,448	5,238,176	8,467,623	488,216	563,974	740,060	835,447	1,228,276	1,399,421	171,145	13.93%
Residential TOD	10,221	29,231	42,961	72,193	4,633	5,154	6,101	6,921	10,734	12,075	1,342	12.50%
Residential EV	1,733	29,457	55,610	85,067	3,450	3,734	5,780	6,266	9,230	10,000	770	8.34%
Load Management	3,754	7,486	35,930	43,417	782	880	3,182	3,604	3,964	4,484	521	13.13%
Res Total	1,201,264	3,295,623	5,372,677	8,668,299	497,081	573,742	755,123	852,239	1,252,204	1,425,981	173,777	13.88%
C&I - Non-Demand												
Small General	76,440	248,840	477,856	726,696	36,532	39,960	62,436	68,080	98,968	108,039	9,071	9.17%
Small General TOD	11,216	26,084	58,005	84,088	3,657	4,030	7,128	7,824	10,786	11,853	1,068	9.90%
Load Management	195	654	3,256	3,909	81	90	335	371	416	461	45	10.78%
C&I N-D Total	87,851	275,577	539,117	814,694	40,271	44,079	69,899	76,274	110,170	120,354	10,183	9.24%
C&I - Demand												
General	42,861	2,737,954	4,807,086	7,545,039	330,185	366,413	515,711	574,111	845,896	940,524	94,627	11.19%
General TOD	4,846	2,643,495	4,538,051	7,181,547	258,176	285,022	399,673	442,172	657,849	727,194	69,345	10.54%
Light Rail	30	8,629	18,545	27,175	948	1,054	1,902	2,124	2,850	3,178	328	11.52%
Peak-Controlled	1,364	382,103	716,284	1,098,387	43,404	48,519	74,941	83,926	118,345	132,445	14,100	11.91%
Peak-Controlled TOD	338	880,843	1,570,193	2,451,036	78,730	87,626	133,783	149,058	212,513	236,684	24,171	11.37%
Energy Controlled, Real Time Pricing and Commercial EV	19	92,649	193,632	286,281	6,784	7,494	14,092	15,652	20,876	23,146	2,270	10.87%
C&I Dmd Total	49,458	6,745,674	11,843,791	18,589,464	718,227	796,128	1,140,102	1,267,043	1,858,329	2,063,171	204,841	11.02%
C&I Total	137,308	7,021,251	12,382,907	19,404,158	758,498	840,207	1,210,001	1,343,318	1,968,500	2,183,524	215,025	10.92%
Public Authorities												
Small Mun Pumping	883	2,082	4,438	6,520	323	352	595	649	917	1,001	84	9.11%
Municipal Pumping	571	23,525	33,803	57,328	3,176	3,517	4,170	4,639	7,347	8,156	809	11.01%
Siren Service	0	0	0	0	12	12	23	25	35	37	2	6.58%
PA Total	1,454	25,607	38,241	63,848	3,511	3,882	4,788	5,312	8,299	9,194	895	10.78%
Lighting												
System Service	0	7,388	24,445	31,832	5,611	6,792	11,518	13,819	17,128	20,611	3,482	20.33%
Energy	0	4,699	15,548	20,248	523	574	1,234	1,297	1,756	1,871	115	6.53%
Metered Energy	3,186	9,503	31,443	40,946	786	834	2,516	2,665	3,301	3,499	198	5.99%
Protective Lighting	0	7,809	21,637	29,447	1,438	1,736	3,061	3,619	4,499	5,355	856	19.02%
Lighting Total	3,186	29,399	93,074	122,473	8,357	9,936	18,328	21,400	26,685	31,336	4,650	17.43%
Total Retail	1,343,212	10,371,879	17,886,899	28,258,778	1,267,447	1,427,766	1,988,241	2,222,269	3,255,688	3,650,035	394,347	12.11%
Other Rev Increase					0	522	0	1,045	0	1,567	1,567	
Interdept. Increase					0	27	0	31	0	57	57	
Total Revenue	1,343,212	10,371,879	17,886,899	28,258,778	1,267,447	1,428,315	1,988,241	2,223,344	3,255,688	3,651,660	395,972	12.16%
Interdept Present	5	3,208	2,925	6,133	316	316	310	310	625	625	0	
Retail + ID	1,343,217	10,375,088	17,889,824	28,264,912	1,267,763	1,428,631	1,988,551	2,223,654	3,256,313	3,652,285	395,972	12.16%

SALES AND REVENUE BY RATE SCHEDULE

Service Schedule	Average Customers	MWH Sales			Revenues (\$1,000s)							
					Summer		Winter		Annual		Increase	
		Summer	Winter	Annual	Present	Proposed	Present	Proposed	Present	Proposed	Amount	Percent
Residential												
Residential	1,195,368	3,210,300	5,199,055	8,409,355	484,674	585,868	733,587	867,219	1,218,260	1,453,086	234,826	19.28%
Residential TOD	10,304	29,054	42,619	71,673	4,600	5,346	6,047	7,173	10,647	12,518	1,871	17.58%
Residential EV	2,065	42,355	81,534	123,889	4,931	5,567	8,409	9,536	13,339	15,103	1,764	13.22%
Load Management	3,813	7,476	36,136	43,613	779	927	3,187	3,838	3,966	4,765	799	20.13%
Res Total	1,211,549	3,289,186	5,359,345	8,648,531	494,983	597,708	751,231	887,765	1,246,213	1,485,473	239,260	19.20%
C&I - Non-Demand												
Small General	76,931	240,114	479,227	719,341	35,278	40,181	62,450	70,979	97,728	111,160	13,432	13.74%
Small General TOD	11,288	25,182	58,213	83,395	3,541	4,042	7,133	8,126	10,674	12,168	1,494	13.99%
Load Management	197	631	3,289	3,920	79	89	336	387	415	476	61	14.82%
C&I N-D Total	88,416	265,927	540,729	806,656	38,898	44,313	69,919	79,492	108,817	123,804	14,988	13.77%
C&I - Demand												
General	43,136	2,643,524	4,814,000	7,457,524	317,744	365,880	514,551	596,534	832,295	962,414	130,119	15.63%
General TOD	4,875	2,566,915	4,464,876	7,031,790	249,599	285,953	391,327	450,737	640,927	736,691	95,764	14.94%
Light Rail	31	8,324	18,506	26,830	912	1,058	1,891	2,211	2,803	3,269	466	16.62%
Peak-Controlled	1,373	369,857	718,418	1,088,275	41,858	48,758	74,860	87,507	116,719	136,265	19,546	16.75%
Peak-Controlled TOD	339	870,381	1,565,154	2,435,535	77,467	89,838	132,780	154,372	210,246	244,211	33,964	16.15%
Energy Controlled, Real Time Pricing and Commercial EV	24	93,849	198,822	292,671	6,887	7,909	14,480	16,733	21,367	24,641	3,274	15.32%
C&I Dmd Total	49,777	6,552,850	11,779,776	18,332,625	694,468	799,396	1,129,890	1,308,095	1,824,358	2,107,491	283,133	15.52%
C&I Total	138,193	6,818,777	12,320,505	19,139,282	733,365	843,709	1,199,809	1,387,587	1,933,175	2,231,295	298,120	15.42%
Public Authorities												
Small Mun Pumping	880	2,044	4,363	6,407	316	358	584	661	901	1,019	118	13.14%
Municipal Pumping	569	23,062	33,328	56,390	3,106	3,566	4,100	4,750	7,205	8,316	1,111	15.42%
Siren Service	0	0	0	0	12	12	23	25	35	37	2	6.58%
PA Total	1,449	25,106	37,692	62,797	3,434	3,936	4,707	5,436	8,141	9,372	1,231	15.13%
Lighting												
System Service	0	7,409	24,423	31,832	5,609	6,941	11,507	14,116	17,116	21,057	3,941	23.02%
Energy	0	4,713	15,535	20,248	521	604	1,227	1,357	1,748	1,961	212	12.15%
Metered Energy	3,186	9,678	31,902	41,580	795	894	2,538	2,853	3,333	3,748	414	12.43%
Protective Lighting	0	7,582	21,608	29,190	1,428	1,797	3,051	3,751	4,480	5,548	1,068	23.84%
Lighting Total	3,186	29,382	93,467	122,850	8,353	10,236	18,324	22,077	26,677	32,313	5,636	21.13%
Total Retail	1,354,377	10,162,450	17,811,008	27,973,459	1,240,135	1,455,589	1,974,071	2,302,864	3,214,206	3,758,453	544,247	16.93%
Other Rev Increase					0	597	0	1,194	0	1,792	1,792	
Interdept. Increase					0	40	0	44	0	85	85	
Total Revenue	1,354,377	10,162,450	17,811,008	27,973,459	1,240,135	1,456,226	1,974,071	2,304,103	3,214,206	3,760,329	546,123	16.99%
Interdept Present	5	3,208	2,925	6,133	316	316	310	310	625	625	0	
Retail + ID	1,354,382	10,165,659	17,813,933	27,979,592	1,240,451	1,456,542	1,974,381	2,304,413	3,214,831	3,760,954	546,123	16.99%

SALES AND REVENUE BY RATE SCHEDULE

Service Schedule	Average Customers	MWH Sales			Revenues (\$1,000s)							
					Summer		Winter		Annual		Increase	
		Summer	Winter	Annual	Present	Proposed	Present	Proposed	Present	Proposed	Amount	Percent
Residential												
Residential	1,204,319	3,186,717	5,188,172	8,374,888	479,785	604,542	729,679	900,445	1,209,464	1,504,986	295,523	24.43%
Residential TOD	10,379	28,844	42,515	71,359	4,554	5,511	6,015	7,437	10,569	12,948	2,379	22.51%
Residential EV	2,397	58,832	112,979	171,811	6,795	7,996	11,551	13,693	18,346	21,689	3,343	18.22%
Load Management	3,850	7,366	36,199	43,565	765	951	3,172	4,014	3,937	4,965	1,028	26.11%
Res Total	1,220,945	3,281,759	5,379,865	8,661,624	491,899	619,000	750,417	925,589	1,242,316	1,544,588	302,272	24.33%
C&I - Non-Demand												
Small General	77,418	236,528	473,922	710,450	34,667	41,000	61,594	72,818	96,261	113,819	17,558	18.24%
Small General TOD	11,359	24,806	57,534	82,341	3,483	4,114	7,033	8,312	10,515	12,426	1,911	18.17%
Load Management	198	622	3,258	3,880	77	90	331	395	409	485	77	18.73%
C&I N-D Total	88,975	261,956	534,715	796,671	38,227	45,205	68,958	81,526	107,185	126,730	19,545	18.24%
C&I - Demand												
General	43,408	2,604,698	4,759,660	7,364,358	311,556	369,532	506,108	606,215	817,664	975,747	158,083	19.33%
General TOD	4,906	2,640,066	4,576,111	7,216,177	249,387	293,453	391,275	464,150	640,662	757,602	116,941	18.25%
Light Rail	31	8,199	18,300	26,499	894	1,075	1,860	2,259	2,754	3,334	580	21.05%
Peak-Controlled	1,381	364,817	710,480	1,075,298	41,061	49,422	73,601	89,040	114,662	138,462	23,800	20.76%
Peak-Controlled TOD	340	866,332	1,562,465	2,428,797	76,624	91,919	131,677	158,556	208,301	250,474	42,174	20.25%
Energy Controlled, Real Time Pricing and Commercial EV	42	99,316	208,142	307,458	7,375	8,774	15,195	18,206	22,570	26,980	4,410	19.54%
C&I Dmd Total	50,107	6,583,428	11,835,159	18,418,587	686,897	814,174	1,119,715	1,338,426	1,806,612	2,152,600	345,987	19.15%
C&I Total	139,082	6,845,385	12,369,873	19,215,258	725,125	859,379	1,188,673	1,419,952	1,913,797	2,279,330	365,533	19.10%
Public Authorities												
Small Mun Pumping	878	2,006	4,353	6,360	310	364	580	684	890	1,048	158	17.69%
Municipal Pumping	568	22,715	33,248	55,963	3,047	3,600	4,070	4,871	7,117	8,470	1,354	19.02%
Siren Service	0	0	0	0	12	12	23	25	35	37	2	6.58%
PA Total	1,446	24,721	37,601	62,322	3,368	3,976	4,674	5,579	8,042	9,555	1,513	18.82%
Lighting												
System Service	0	7,433	24,400	31,832	5,606	6,982	11,495	14,197	17,101	21,180	4,079	23.85%
Energy	0	4,728	15,520	20,248	519	617	1,219	1,382	1,739	1,999	261	14.99%
Metered Energy	3,186	9,865	32,384	42,248	804	930	2,559	2,959	3,363	3,889	526	15.64%
Protective Lighting	0	7,481	21,402	28,883	1,422	1,789	3,035	3,734	4,456	5,523	1,066	23.92%
Lighting Total	3,186	29,506	93,705	123,211	8,351	10,318	18,308	22,273	26,659	32,591	5,932	22.25%
Total Retail	1,364,660	10,181,370	17,881,045	28,062,414	1,228,743	1,492,672	1,962,071	2,373,392	3,190,814	3,866,065	675,250	21.16%
Other Rev Increase					0	663	0	1,326	0	1,989	1,989	
Interdept. Increase					0	52	0	56	0	108	108	
Total Revenue	1,364,660	10,181,370	17,881,045	28,062,414	1,228,743	1,493,387	1,962,071	2,374,774	3,190,814	3,868,161	677,347	21.23%
Interdept Present	5	3,208	2,925	6,133	316	316	310	310	625	625	0	
Retail + ID	1,364,665	10,184,578	17,883,970	28,068,548	1,229,059	1,493,703	1,962,381	2,375,084	3,191,440	3,868,787	677,347	21.22%

	Revenues (\$1,000s)							
	Total		Base		Fuel		Rider	
	Present	Proposed	Present	Proposed	Present	Proposed	Present	Proposed
Residential Regular	1,200,657	1,367,717	861,338	1,103,983	252,752	252,787	86,568	10,947
Res Space Heating	52,661	59,613	34,751	45,765	13,257	13,259	4,654	588
Total Residential	1,253,319	1,427,330	896,088	1,149,749	266,009	266,047	91,222	11,535
Small Comm. & Ind.	1,340,176	1,488,200	854,716	1,104,535	367,023	367,373	118,437	16,291
Large Comm. & Ind.	631,708	699,330	355,596	478,112	211,976	211,675	64,136	9,543
Total Comm. & Ind.	1,971,884	2,187,530	1,210,312	1,582,647	578,999	579,049	182,573	25,834
Street Lighting	22,186	25,981	19,338	23,717	2,232	2,140	617	124
Public Authorities	8,299	9,194	5,684	7,184	1,922	1,925	693	85
Total Retail	3,255,688	3,650,035	2,131,422	2,763,297	849,161	849,161	275,105	37,578
Other Revenues Incr.		1,567		1,567				
Interdept Rev Incr		57		110		1		-54
Retail + Increases	3,255,688	3,651,660	2,131,422	2,764,974	849,161	849,161	275,105	37,524
Interdept Present Rev.	625	625	380	380	184	184	62	62
Retail + Interdept	3,256,313	3,652,285	2,131,801	2,765,354	849,346	849,346	275,166	37,586

	Revenue Increase							
	Total		Base		Fuel		Rider	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Residential Regular	167,060	13.91%	242,645	28.17%	36	0.01%	-75,621	-87.4%
Res Space Heating	6,952	13.20%	11,015	31.70%	2	0.02%	-4,065	-87.4%
Total Residential	174,011	13.88%	253,660	28.31%	38	0.01%	-79,687	-87.4%
Small Comm. & Ind.	148,024	11.05%	249,819	29.23%	350	0.10%	-102,145	-86.2%
Large Comm. & Ind.	67,622	10.70%	122,516	34.45%	-300	-0.14%	-54,593	-85.1%
Total Comm. & Ind.	215,646	10.94%	372,335	30.76%	50	0.01%	-156,739	-85.8%
Street Lighting	3,795	17.10%	4,380	22.65%	-91	-4.10%	-493	-79.9%
Public Authorities	895	10.78%	1,500	26.39%	3	0.16%	-608	-87.8%
Total Retail	394,347	12.11%	631,875	29.65%	-1	0.00%	-237,527	-86.3%
Other Revenues Incr.	1,567		1,567		0		0	
Interdept Rev Incr	57		110		1		-54	
Retail + Increases	395,972	12.16%	633,552	29.72%	0	0.00%	-237,581	-86.4%
Interdept Present Rev.	0	0.00%	0	0.00%	0	0.00%	0	0.0%
Retail + Interdept	395,972	12.16%	633,552	29.72%	0	0.00%	-237,581	-86.3%

	Revenues (\$1,000s)							
	Total		Base		Fuel		Rider	
	Present	Proposed	Present	Proposed	Present	Proposed	Present	Proposed
Residential Regular	1,194,434	1,423,629	859,224	1,159,673	254,628	254,665	80,582	9,291
Res Space Heating	52,889	63,241	35,029	49,249	13,485	13,488	4,375	504
Total Residential	1,247,324	1,486,870	894,253	1,208,922	268,114	268,153	84,957	9,795
Small Comm. & Ind.	1,319,375	1,524,355	844,031	1,143,723	366,572	366,922	108,771	13,710
Large Comm. & Ind.	617,168	711,091	348,625	493,119	210,294	209,995	58,249	7,977
Total Comm. & Ind.	1,936,544	2,235,446	1,192,657	1,636,842	576,866	576,917	167,020	21,687
Street Lighting	22,198	26,765	19,366	24,482	2,270	2,177	561	106
Public Authorities	8,141	9,372	5,594	7,388	1,910	1,913	637	71
Total Retail	3,214,206	3,758,453	2,111,870	2,877,635	849,160	849,159	253,176	31,659
Other Revenues Incr.		1,792		1,792				
Interdept Rev Incr		85		134		1		-51
Retail + Increases	3,214,206	3,760,329	2,111,870	2,879,561	849,160	849,160	253,176	31,609
Interdept Present Rev.	625	625	382	382	186	186	57	57
Retail + Interdept	3,214,831	3,760,954	2,112,252	2,879,942	849,346	849,346	253,234	31,666

	Revenue Increase							
	Total		Base		Fuel		Rider	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Residential Regular	229,195	19.19%	300,449	34.97%	37	0.01%	-71,291	-88.5%
Res Space Heating	10,351	19.57%	14,220	40.60%	2	0.02%	-3,871	-88.5%
Total Residential	239,546	19.20%	314,669	35.19%	39	0.01%	-75,162	-88.5%
Small Comm. & Ind.	204,980	15.54%	299,691	35.51%	349	0.10%	-95,061	-87.4%
Large Comm. & Ind.	93,923	15.22%	144,494	41.45%	-299	-0.14%	-50,272	-86.3%
Total Comm. & Ind.	298,902	15.43%	444,185	37.24%	50	0.01%	-145,333	-87.0%
Street Lighting	4,568	20.58%	5,116	26.42%	-93	-4.10%	-455	-81.1%
Public Authorities	1,231	15.13%	1,795	32.08%	3	0.16%	-566	-88.8%
Total Retail	544,247	16.93%	765,765	36.26%	-1	0.00%	-221,517	-87.5%
Other Revenues Incr.	1,792		1,792		0		0	
Interdept Rev Incr	85		134		1		-51	
Retail + Increases	546,123	16.99%	767,691	36.35%	0	0.00%	-221,567	-87.5%
Interdept Present Rev.	0	0.00%	0	0.00%	0	0.00%	0	0.0%
Retail + Interdept	546,123	16.99%	767,691	36.34%	0	0.00%	-221,567	-87.5%

REVENUE BY RATE CLASS

	Revenues (\$1,000s)							
	Total		Base		Fuel		Rider	
	Present	Proposed	Present	Proposed	Present	Proposed	Present	Proposed
Residential Regular	1,190,937	1,480,003	860,192	1,215,823	254,311	254,358	76,433	9,822
Res Space Heating	52,486	65,978	34,951	52,040	13,404	13,407	4,131	531
Total Residential	1,243,423	1,545,981	895,143	1,267,863	267,716	267,765	80,565	10,353
Small Comm. & Ind.	1,296,431	1,547,138	833,732	1,171,479	361,012	361,369	101,687	14,290
Large Comm. & Ind.	620,716	736,322	347,912	511,687	216,263	215,946	56,541	8,689
Total Comm. & Ind.	1,917,147	2,283,460	1,181,644	1,683,166	577,275	577,315	158,228	22,979
Street Lighting	22,203	27,068	19,397	24,769	2,280	2,186	526	113
Public Authorities	8,042	9,555	5,551	7,588	1,890	1,893	601	74
Total Retail	3,190,814	3,866,065	2,101,734	2,983,386	849,160	849,159	239,920	33,519
Other Revenues Incr.		1,989		1,989				
Interdept Rev Incr		108		154		1		-47
Retail + Increases	3,190,814	3,868,161	2,101,734	2,985,529	849,160	849,160	239,920	33,472
Interdept Present Rev.	625	625	386	386	186	186	54	54
Retail + Interdept	3,191,440	3,868,787	2,102,120	2,985,915	849,346	849,346	239,974	33,526

	Revenue Increase							
	Total		Base		Fuel		Rider	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Residential Regular	289,066	24.27%	355,630	41.34%	47	0.02%	-66,611	-87.1%
Res Space Heating	13,491	25.70%	17,089	48.90%	3	0.02%	-3,601	-87.2%
Total Residential	302,558	24.33%	372,720	41.64%	50	0.02%	-70,212	-87.1%
Small Comm. & Ind.	250,708	19.34%	337,748	40.51%	357	0.10%	-87,397	-85.9%
Large Comm. & Ind.	115,606	18.62%	163,775	47.07%	-317	-0.15%	-47,853	-84.6%
Total Comm. & Ind.	366,313	19.11%	501,523	42.44%	40	0.01%	-135,249	-85.5%
Street Lighting	4,866	21.91%	5,373	27.70%	-93	-4.10%	-414	-78.6%
Public Authorities	1,513	18.82%	2,037	36.70%	3	0.16%	-527	-87.6%
Total Retail	675,250	21.16%	881,652	41.95%	-1	0.00%	-206,401	-86.0%
Other Revenues Incr.	1,989		1,989		0		0	
Interdept Rev Incr	108		154		1		-47	
Retail + Increases	677,347	21.23%	883,795	42.05%	0	0.00%	-206,448	-86.0%
Interdept Present Rev.	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Retail + Interdept	677,347	21.22%	883,795	42.04%	0	0.00%	-206,448	-86.0%

Comparison Of Present & Proposed Rates

Fuel Cost - Retail	Present			Proposed		
	Summer	Winter	Annual	Summer	Winter	Annual
Retail	3.454 ¢	2.971 ¢	3.149 ¢	3.454 ¢	2.971 ¢	3.149 ¢
Residential	3.515 ¢	3.024 ¢	3.205 ¢	3.520 ¢	3.028 ¢	3.209 ¢
C&I - Non-Demand	3.559 ¢	3.062 ¢	3.245 ¢	3.517 ¢	3.025 ¢	3.207 ¢
C&I-Dmd - Non-TOD			3.144 ¢			3.158 ¢
C&I-Dmd -TOD On-Peak			3.932 ¢			4.014 ¢
C&I-Dmd -TOD Off-Peak			2.571 ¢			2.520 ¢
Lighting			2.512 ¢			2.412 ¢

		Present	Proposed	Present	Proposed
Residential (A01, A03)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$8.00	\$9.50	\$8.00	\$9.50
	Overhead - Electric Sp Ht	\$10.00	\$11.50	\$10.00	\$11.50
	Underground	\$10.00	\$11.50	\$10.00	\$11.50
	Underground - Electric Sp Ht	\$12.00	\$13.50	\$12.00	\$13.50
Energy / kWh	Summer	10.301 ¢	12.994 ¢	13.816 ¢	16.514 ¢
	Winter	8.803 ¢	11.285 ¢	11.827 ¢	14.313 ¢
	Winter - Electric Space Heat	5.988 ¢	8.136 ¢	9.012 ¢	11.164 ¢

Residential Time of Day (A02, A04)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$10.00	\$11.50	\$10.00	\$11.50
	Underground	\$12.00	\$13.50	\$12.00	\$13.50
	Overhead - Electric Sp Ht	\$12.00	\$13.50	\$12.00	\$13.50
	Underground - Electric Sp Ht	\$14.00	\$15.50	\$14.00	\$15.50
Energy / kWh	On-Peak Summer	20.497 ¢	25.142 ¢	24.012 ¢	28.662 ¢
	On-Peak Winter	16.508 ¢	20.661 ¢	19.532 ¢	23.689 ¢
	On-Peak Winter -Elec. Sp Ht	9.284 ¢	12.772 ¢	12.308 ¢	15.800 ¢
	Off-Peak Summer	4.170 ¢	5.504 ¢	7.685 ¢	9.024 ¢
	Off-Peak Winter	4.170 ¢	5.504 ¢	7.194 ¢	8.532 ¢

Res Electric Vehicle (A08, A80, A81, A82, A83)		Base Rates		Rates + Fuel	
Customer / Mo.	A08 EV Service	\$4.95	\$5.50	\$4.95	\$5.50
	A80 EV Pilot Bundled	\$16.48	\$16.48	\$16.48	\$16.48
	A81 EV Pilot Pre-Pay	\$6.68	\$6.68	\$6.68	\$6.68
	A82 EV Pilot Bundled	\$30.65	\$35.19	\$42.50	\$45.93
	A83 EV Pilot Pre-Pay	\$20.85	\$25.39	\$32.65	\$36.13
Energy / kWh	On-Peak Summer	20.497 ¢	25.142 ¢	24.012 ¢	28.662 ¢
	On-Peak Winter	16.508 ¢	20.661 ¢	19.532 ¢	23.689 ¢
	Off-Peak Summer	4.170 ¢	5.504 ¢	7.685 ¢	9.024 ¢
	Off-Peak Winter	4.170 ¢	5.504 ¢	7.194 ¢	8.532 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Residential Time of Use Pilot (A72, A74)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$8.00	\$9.50	\$8.00	\$9.50
	Underground	\$10.00	\$11.50	\$10.00	\$11.50
Energy /kWh	On-Peak Summer	22.576 ¢	27.703 ¢	26.091 ¢	31.223 ¢
	On-Peak Winter	19.266 ¢	24.716 ¢	22.290 ¢	27.744 ¢
	Mid-Peak Summer	9.013 ¢	11.240 ¢	12.528 ¢	14.761 ¢
	Mid-Peak Winter	7.515 ¢	9.836 ¢	10.539 ¢	12.864 ¢
	Off-Peak Summer	2.784 ¢	3.789 ¢	6.299 ¢	7.309 ¢
	Off-Peak Winter	2.784 ¢	3.789 ¢	5.808 ¢	6.817 ¢

		Present	Proposed	Present	Proposed
Energy-Controlled Non-Demand (A05)		Base Rates		Rates + Fuel	
Customer / Mo.		\$4.95	\$5.50	\$4.95	\$5.50
Energy / kWh	Standard Resid.	4.4870 ¢	6.5740 ¢	7.692 ¢	9.783 ¢
	Standard Comm.	4.4870 ¢	6.5740 ¢	7.732 ¢	9.781 ¢
	Optional Resid. - Summer	10.301 ¢	12.994 ¢	13.816 ¢	16.514 ¢
	Optional Comm.- Summer	9.256 ¢	11.372 ¢	12.815 ¢	14.889 ¢

		Present	Proposed	Present	Proposed
Limited Off-Peak (A06)		Base Rates		Rates + Fuel	
Customer / Mo.	Residential	\$4.95	\$5.50	\$4.95	\$5.50
	Commercial Sec. 1 Phase	\$10.00	\$11.00	\$10.00	\$11.00
	Commercial Sec. 3 Phase	\$13.60	\$15.00	\$13.60	\$15.00
	Commercial Higher Voltages	\$60.00	\$60.00	\$60.00	\$60.00
Energy / kWh	Residential On-Peak	36.000 ¢	42.100 ¢	39.205 ¢	45.309 ¢
	Commercial On-Peak	36.000 ¢	42.100 ¢	39.245 ¢	45.307 ¢
	Residential Secondary	3.665 ¢	4.989 ¢	6.870 ¢	8.198 ¢
	Commercial Secondary	3.665 ¢	4.989 ¢	6.910 ¢	8.196 ¢
	Commercial Primary	3.560 ¢	4.858 ¢	6.805 ¢	8.065 ¢
	Commercial T Trnsfrmd	3.398 ¢	4.677 ¢	6.643 ¢	7.884 ¢
	Commercial Transmission	3.388 ¢	4.667 ¢	6.633 ¢	7.874 ¢

		Present	Proposed	Present	Proposed
Small General (A09, A10, A11, A13)		Base Rates		Rates + Fuel	
Customer / Mo.	Metered (A10)	\$10.00	\$11.50	\$10.00	\$11.50
	Unmetered (A09)	\$8.00	\$9.50	\$8.00	\$9.50
Demand / kW	Direct Current	\$3.61	\$3.95	\$3.61	\$3.95
Energy /kWh	Summer	9.256 ¢	11.372 ¢	12.815 ¢	14.889 ¢
	Winter	7.757 ¢	9.663 ¢	10.819 ¢	12.688 ¢

		Present	Proposed	Present	Proposed
Small Municipal Pumping (A40)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$10.00	\$11.50	\$10.00	\$11.50
Energy /kWh	Summer	9.256 ¢	11.357 ¢	12.815 ¢	14.874 ¢
	Winter	7.757 ¢	9.648 ¢	10.819 ¢	12.673 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Small General TOD (A12, A16, A18, A22)		Base Rates		Rates + Fuel	
Customer / Mo.	TOD Metered (A12)	\$12.00	\$13.50	\$12.00	\$13.50
	KWH Metered (A16)	\$10.00	\$11.50	\$10.00	\$11.50
	Unmetered (A18)	\$8.00	\$9.50	\$8.00	\$9.50
	Low Wattage <100W (A22)	\$0.30	\$0.33	\$0.30	\$0.33
	Low Wattage <400W (A22)	\$1.20	\$1.32	\$1.20	\$1.32
Energy / kWh	On-Peak Summer	14.880 ¢	18.449 ¢	18.439 ¢	21.966 ¢
	On-Peak Winter	11.723 ¢	14.679 ¢	14.785 ¢	17.704 ¢
	Off-Peak Summer	4.170 ¢	5.506 ¢	7.729 ¢	9.023 ¢
	Off-Peak Winter	4.170 ¢	5.506 ¢	7.232 ¢	8.531 ¢
	Constant Use - Summer	7.919 ¢	10.036 ¢	11.478 ¢	13.553 ¢
	Constant Use - Winter	6.814 ¢	8.717 ¢	9.876 ¢	11.742 ¢
Demand-Metered Voltage Discounts		Base Rates		Rates + Fuel	
Voltage Discount / kWh	Primary	0.105 ¢	0.131 ¢	0.105 ¢	0.131 ¢
	Transmission Transformed	0.267 ¢	0.312 ¢	0.267 ¢	0.312 ¢
	Transmission	0.277 ¢	0.322 ¢	0.277 ¢	0.322 ¢
Voltage Discount / kW	Primary	\$0.80	\$0.70	\$0.80	\$0.70
	Transmission Transformed	\$1.55	\$1.85	\$1.55	\$1.85
	Transmission	\$2.35	\$2.70	\$2.35	\$2.70

General (A14)		Base Rates		Rates + Fuel	
Customer / Mo.		\$25.64	\$25.98	\$25.64	\$25.98
Demand / kW	Summer	\$14.79	\$17.48	\$14.79	\$17.48
	Winter	\$10.49	\$12.89	\$10.49	\$12.89
Energy / kWh		3.407 ¢	4.738 ¢	6.551 ¢	7.896 ¢
Energy Credit / kWh		-1.518 ¢	-1.760 ¢	-1.518 ¢	-1.760 ¢

Municipal Pumping (A41)		Base Rates		Rates + Fuel	
Customer / Mo.		\$25.64	\$25.98	\$25.64	\$25.98
Demand / kW	Summer	\$14.79	\$17.48	\$14.79	\$17.48
	Winter	\$10.49	\$12.89	\$10.49	\$12.89
Energy / kWh		3.407 ¢	4.738 ¢	6.551 ¢	7.896 ¢
Energy Credit / kWh		-1.518 ¢	-1.760 ¢	-1.518 ¢	-1.760 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
General Time of Day (A15, A88, A89, A90)		Base Rates		Rates + Fuel	
Electric Vehicle Fleet Pilot (A88, A89)					
Electric Vehicle Public Charging Pilot (A90)					
Customer / Mo.	Standard A15)	\$29.64	\$29.98	\$29.64	\$29.98
	kWh Metered (A17)	\$25.64	\$25.98	\$25.64	\$25.98
	Unmetered (A19)	\$21.64	\$21.98	\$21.64	\$21.98
On-Peak Demand / kW	Summer	\$14.79	\$17.48	\$14.79	\$17.48
	Winter	\$10.49	\$12.89	\$10.49	\$12.89
Off-Peak Demand / kW		\$2.35	\$2.70	\$2.35	\$2.70
Energy / kWh	On-Peak	4.855 ¢	6.502 ¢	8.787 ¢	10.516 ¢
	Off-Peak	2.341 ¢	3.422 ¢	4.912 ¢	5.942 ¢
Energy Credit / kWh		-1.518 ¢	-1.760 ¢	-1.518 ¢	-1.760 ¢

Hiawatha Light Rail Line (A29)		Base Rates		Rates + Fuel	
Customer / Mo.		\$100.00	\$100.00	\$100.00	\$100.00
Generation Demand / kW	Summer	\$8.71	\$9.64	\$8.71	\$9.64
	Winter	\$4.41	\$5.05	\$4.41	\$5.05
Transmission & Distribution Demand / kW		\$5.28	\$7.14	\$5.28	\$7.14
Off-Peak Demand / kW	Primary	\$1.55	\$2.00	\$1.55	\$2.00
Energy / kWh	On-Peak Primary	4.750 ¢	6.371 ¢	8.682 ¢	10.385 ¢
	Off-Peak Primary	2.236 ¢	3.291 ¢	4.807 ¢	5.811 ¢
Energy Credit / kWh		-1.303 ¢	-1.510 ¢	-1.303 ¢	-1.510 ¢

Peak-Controlled (A23)		Base Rates		Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
Firm Demand / kW	Summer	\$14.79	\$17.48	\$14.79	\$17.48
	Winter	\$10.49	\$12.89	\$10.49	\$12.89
Control Demand / kW	Tier 2 - Level A	\$8.88	\$11.29	\$8.88	\$11.29
	Tier 2 - Level B	\$7.86	\$10.16	\$7.86	\$10.16
	Tier 2 - Level C	\$7.34	\$9.62	\$7.34	\$9.62
	Tier 1 - Level B	\$7.15	\$9.44	\$7.15	\$9.44
	Tier 1 - Level C	\$6.56	\$8.81	\$6.56	\$8.81
	Tier 1 - Short Notice	\$6.09	\$8.31	\$6.09	\$8.31
Energy / kWh		3.407 ¢	4.738 ¢	6.551 ¢	7.896 ¢
Energy Credit / kWh		-1.518 ¢	-1.760 ¢	-1.518 ¢	-1.760 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Peak-Controlled TOD (A24)		Base Rates		Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$17.48	\$14.79	\$17.48
	Winter	\$10.49	\$12.89	\$10.49	\$12.89
Control Demand / kW	Tier 2 - Level A	\$8.88	\$11.29	\$8.88	\$11.29
	Tier 2 - Level B	\$7.86	\$10.16	\$7.86	\$10.16
	Tier 2 - Level C	\$7.34	\$9.62	\$7.34	\$9.62
	Tier 1 - Level B	\$7.15	\$9.44	\$7.15	\$9.44
	Tier 1 - Level C	\$6.56	\$8.81	\$6.56	\$8.81
	Tier 1 - Short Notice	\$6.09	\$8.31	\$6.09	\$8.31
Off-Peak Demand / kW		\$2.35	\$2.70	\$2.35	\$2.70
Energy / kWh	On-Peak	4.855 ¢	6.502 ¢	8.787 ¢	10.516 ¢
	Off-Peak	2.341 ¢	3.422 ¢	4.912 ¢	5.942 ¢
Energy Credit / kWh		-1.5180 ¢	-1.7600 ¢	-1.5180 ¢	-1.7600 ¢

		Present	Proposed	Present	Proposed
Tier 1 Energy-Controlled Rider (A27)		Base Rates		Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$17.48	\$14.79	\$17.48
	Winter	\$10.49	\$12.89	\$10.49	\$12.89
Control Demand / kW	Tier 1 - Level B	\$7.15	\$9.44	\$7.15	\$9.44
	Tier 1 - Level C	\$6.56	\$8.81	\$6.56	\$8.81
	Tier 1 - Short Notice	\$6.09	\$8.31	\$6.09	\$8.31
Off-Peak Demand / kW		\$2.35	\$2.70	\$2.35	\$2.70
Energy / kWh	Firm On-Peak	4.855 ¢	6.502 ¢	8.787 ¢	10.516 ¢
	Firm Off-Peak	2.341 ¢	3.422 ¢	4.912 ¢	5.942 ¢
	Controllable On-Peak	4.647 ¢	6.258 ¢	8.579 ¢	10.272 ¢
	Controllable Off-Peak	2.280 ¢	3.337 ¢	4.851 ¢	5.857 ¢
	Control Period Energy	9.000 ¢	9.000 ¢	12.932 ¢	13.014 ¢
Energy Credit / kWh		-1.518 ¢	-1.760 ¢	-1.518 ¢	-1.760 ¢

Comparison Of Present & Proposed Rates

	Present	Proposed
Fire & Civil Defense Siren (A42)		
HP Capacity / Mo.	\$0.76	\$0.81
Min Charge / Mo.	\$3.66	\$3.88

Standby Service Rider Supplemental Generation Service Rider				
Customer / Mo.			\$25.64	\$25.98
Demand / Contract kW	Standby	Unscheduled Maint	\$3.06	\$3.57
	Standby	Scheduled Maint	\$2.96	\$3.47
	Standby	Non-Firm	\$2.35	\$2.70
		Supplemental	\$3.40	\$4.01
Peak Surcharge / kWh	Standby	Summer	6.312 ¢	7.499 ¢
	Standby	Winter	4.130 ¢	5.170 ¢

Photovoltaic Demand Credit Rider (A85, A86)				
Customer / Mo.			\$25.75	\$25.98
Peak Credit / kWh	A85	Closed	7.1390 ¢	N/A
	A86	Standard	6.9648 ¢	8.2702 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Automatic Protective Lighting (A07)		Base Rates		Rates + Fuel	
Area	100 W HPSodium	\$7.41	\$9.62	\$8.38	\$10.55
	175 W Mercury	\$7.41	\$9.62	\$9.10	\$11.45
	250 W HPSodium	\$11.83	\$15.65	\$14.38	\$18.10
	400 W Mercury	\$11.83	\$15.65	\$15.66	\$19.71
	30-40W LED	\$7.28	\$9.24	\$7.55	\$9.50
	110-165W LED	\$11.33	\$14.58	\$12.40	\$15.61
Directional	250 W HPSodium	\$14.08	\$17.90	\$16.63	\$20.35
	400 W HPSodium	\$17.62	\$22.62	\$21.63	\$26.46
	<i>Proposed</i> 80-165 LED		\$17.10		\$17.89
	<i>Proposed</i> 140-200 LED		\$21.23		\$22.63
	1000 W Mercury	\$27.33	\$28.70	\$36.49	\$37.49

		Present	Proposed	Present	Proposed
Street Lighting System (A30)		Base Rates		Rates + Fuel	
Overhead	70 W HPSodium	\$9.63	\$12.52	\$10.30	\$13.17
	100 W HPSodium	\$10.17	\$13.20	\$11.14	\$14.13
	150 W HPSodium	\$10.95	\$14.31	\$12.37	\$15.67
	200 W HPSodium	\$12.88	\$16.45	\$14.85	\$18.34
	250 W HPSodium	\$13.87	\$17.72	\$16.42	\$20.17
	400 W HPSodium	\$16.85	\$21.65	\$20.86	\$25.49
	175 W Metal Halide	\$14.98	\$18.20	\$16.67	\$19.82
	30-40W LED	\$10.32	\$12.78	\$10.64	\$13.09
	50-75W LED	\$11.01	\$13.58	\$11.55	\$14.10
	110-165W LED	\$14.46	\$17.25	\$15.75	\$18.49
	200-250W LED	\$17.98	\$21.15	\$20.02	\$23.10
Underground	70 W HPSodium	\$19.54	\$24.38	\$20.21	\$25.03
	100 W HPSodium	\$20.07	\$25.05	\$21.04	\$25.98
	150 W HPSodium	\$20.86	\$26.17	\$22.28	\$27.53
	250 W HPSodium	\$23.38	\$29.28	\$25.93	\$31.73
	400 W HPSodium	\$26.06	\$32.98	\$30.07	\$36.82
	175 W Metal Halide	\$27.90	\$33.62	\$29.59	\$35.24
	30-40W LED	\$20.22	\$24.63	\$20.54	\$24.94
	50-75W LED	\$20.91	\$25.43	\$21.45	\$25.95
	110-165W LED	\$23.96	\$28.80	\$25.25	\$30.04
	200-250W LED	\$27.19	\$32.48	\$29.23	\$34.43
	Decorative UG	100 W HPSodium	\$31.67	\$38.94	\$32.64
150 W HPSodium		\$32.84	\$40.34	\$34.26	\$41.70
250 W HPSodium		\$34.89	\$43.10	\$37.44	\$45.55
400 W HPSodium		\$37.38	\$46.65	\$41.39	\$50.49
175 W Metal Halide		\$37.38	\$46.65	\$39.07	\$48.27
Pre-Pay Option	70 W HPSodium	\$5.97	\$7.36	\$6.64	\$8.01
	100 W HPSodium	\$6.66	\$8.16	\$7.63	\$9.09
	150 W HPSodium	\$7.54	\$9.23	\$8.96	\$10.59
	250 W HPSodium	\$9.61	\$11.81	\$12.16	\$14.26
	400 W HPSodium	\$12.42	\$15.25	\$16.43	\$19.09
	175 W Metal Halide	\$13.54	\$16.08	\$15.23	\$17.70
	30-40W LED	\$4.90	\$6.24	\$5.22	\$6.55
	50-75W LED	\$5.49	\$6.88	\$6.03	\$7.40
	110-165W LED	\$7.05	\$8.73	\$8.34	\$9.97
	200-250W LED	\$8.93	\$10.84	\$10.97	\$12.79

Comparison Of Present & Proposed Rates

	Present	Proposed	Present	Proposed
Street Lighting Energy (A32)	Base Rates		Rates + Fuel	
100 W Mercury	\$2.45	\$3.03	\$3.51	\$4.04
175 W Mercury	\$3.64	\$4.49	\$5.33	\$6.11
250 W Mercury	\$4.94	\$6.08	\$7.31	\$8.36
400 W Mercury	\$7.69	\$9.47	\$11.52	\$13.14
700 W Mercury	\$12.78	\$15.73	\$19.30	\$21.99
1000 W Mercury	\$17.77	\$21.89	\$26.93	\$30.67
1F72HO Fluorescent	\$3.61	\$3.93	\$4.69	\$4.97
<30W LED	\$1.06	\$1.13	\$1.27	\$1.33
30-45W LED	\$1.34	\$1.43	\$1.66	\$1.74
50-75W LED	\$1.85	\$1.99	\$2.39	\$2.50
110-165W LED	\$3.44	\$3.72	\$4.73	\$4.96
200-250W LED	\$5.14	\$5.57	\$7.18	\$7.52
50 W HPSodium	\$1.37	\$1.69	\$1.85	\$2.15
70 W HPSodium	\$1.73	\$2.14	\$2.40	\$2.78
100 W HPSodium	\$2.29	\$2.83	\$3.26	\$3.77
150 W HPSodium	\$3.14	\$3.88	\$4.56	\$5.24
200 W HPSodium	\$4.18	\$5.15	\$6.15	\$7.05
250 W HPSodium	\$5.28	\$6.51	\$7.83	\$8.96
400 W HPSodium	\$8.03	\$9.89	\$12.04	\$13.74
750 W HPSodium	\$13.78	\$16.98	\$20.83	\$23.74

Street Lighting Energy - Metered (A34)	Base Rates		Rates + Fuel	
Customer / Mo.	\$5.00	\$5.70	\$5.00	\$5.70
Energy Charge per kWh	4.534 ¢	5.580 ¢	7.046 ¢	7.992 ¢

Street Lighting Energy - City of St. Paul (A37)	Base Rates		Rates + Fuel	
100 W HPSodium	\$5.48	\$6.41	\$6.45	\$7.34
150 W HPSodium	\$6.14	\$7.21	\$7.56	\$8.57
250 W HPSodium	\$8.60	\$9.46	\$11.15	\$11.91

Comparison Of Present & Proposed Rates

Fuel Cost - Retail	Present			Proposed		
	Summer	Winter	Annual	Summer	Winter	Annual
Retail	3.454 ¢	2.971 ¢	3.149 ¢	3.454 ¢	2.971 ¢	3.149 ¢
Residential	3.515 ¢	3.024 ¢	3.205 ¢	3.520 ¢	3.028 ¢	3.209 ¢
C&I - Non-Demand	3.559 ¢	3.062 ¢	3.245 ¢	3.517 ¢	3.025 ¢	3.207 ¢
C&I-Dmd - Non-TOD			3.144 ¢			3.158 ¢
C&I-Dmd -TOD On-Peak			3.932 ¢			4.014 ¢
C&I-Dmd -TOD Off-Peak			2.571 ¢			2.520 ¢
Lighting			2.512 ¢			2.412 ¢

		Present	Proposed	Present	Proposed
Residential (A01, A03)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$8.00	\$9.50	\$8.00	\$9.50
	Overhead - Electric Sp Ht	\$10.00	\$11.50	\$10.00	\$11.50
	Underground	\$10.00	\$11.50	\$10.00	\$11.50
	Underground - Electric Sp Ht	\$12.00	\$13.50	\$12.00	\$13.50
Energy / kWh	Summer	10.301 ¢	13.748 ¢	13.816 ¢	17.268 ¢
	Winter	8.803 ¢	11.980 ¢	11.827 ¢	15.008 ¢
	Winter - Electric Space Heat	5.988 ¢	8.831 ¢	9.012 ¢	11.859 ¢

Residential Time of Day (A02, A04)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$10.00	\$11.50	\$10.00	\$11.50
	Underground	\$12.00	\$13.50	\$12.00	\$13.50
	Overhead - Electric Sp Ht	\$12.00	\$13.50	\$12.00	\$13.50
	Underground - Electric Sp Ht	\$14.00	\$15.50	\$14.00	\$15.50
Energy / kWh	On-Peak Summer	20.497 ¢	26.845 ¢	24.012 ¢	30.365 ¢
	On-Peak Winter	16.508 ¢	22.209 ¢	19.532 ¢	25.237 ¢
	On-Peak Winter -Elec. Sp Ht	9.284 ¢	14.393 ¢	12.308 ¢	17.421 ¢
	Off-Peak Summer	4.170 ¢	5.673 ¢	7.685 ¢	9.193 ¢
	Off-Peak Winter	4.170 ¢	5.673 ¢	7.194 ¢	8.701 ¢

Res Electric Vehicle (A08, A80, A81, A82, A83)		Base Rates		Rates + Fuel	
Customer / Mo.	A08 EV Service	\$4.95	\$5.50	\$4.95	\$5.50
	A80 EV Pilot Bundled	\$16.48	\$16.48	\$16.48	\$16.48
	A81 EV Pilot Pre-Pay	\$6.68	\$6.68	\$6.68	\$6.68
	A82 EV Pilot Bundled	\$30.65	\$ 35.76	\$ 42.50	\$ 46.53
	A83 EV Pilot Pre-Pay	\$20.85	\$ 25.96	\$ 32.65	\$ 36.73
Energy / kWh	On-Peak Summer	20.497 ¢	26.845 ¢	24.012 ¢	30.365 ¢
	On-Peak Winter	16.508 ¢	22.209 ¢	19.532 ¢	25.237 ¢
	Off-Peak Summer	4.170 ¢	5.673 ¢	7.685 ¢	9.193 ¢
	Off-Peak Winter	4.170 ¢	5.673 ¢	7.194 ¢	8.701 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Residential Time of Use Pilot (A72, A74)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$8.00	\$9.50	\$8.00	\$9.50
	Underground	\$10.00	\$11.50	\$10.00	\$11.50
Energy /kWh	On-Peak Summer	22.576 ¢	29.128 ¢	26.091 ¢	32.649 ¢
	On-Peak Winter	19.266 ¢	26.063 ¢	22.290 ¢	29.091 ¢
	Mid-Peak Summer	9.013 ¢	11.914 ¢	12.528 ¢	15.434 ¢
	Mid-Peak Winter	7.515 ¢	10.461 ¢	10.539 ¢	13.489 ¢
	Off-Peak Summer	2.784 ¢	4.121 ¢	6.299 ¢	7.641 ¢
	Off-Peak Winter	2.784 ¢	4.121 ¢	5.808 ¢	7.149 ¢

		Present	Proposed	Present	Proposed
Energy-Controlled Non-Demand (A05)		Base Rates		Rates + Fuel	
Customer / Mo.		\$4.95	\$5.50	\$4.95	\$5.50
Energy / kWh	Standard Resid.	4.4870 ¢	7.1790 ¢	7.692 ¢	10.388 ¢
	Standard Comm.	4.4870 ¢	7.1790 ¢	7.732 ¢	10.386 ¢
	Optional Resid. - Summer	10.301 ¢	13.748 ¢	13.816 ¢	17.268 ¢
	Optional Comm.- Summer	9.256 ¢	11.980 ¢	12.815 ¢	15.497 ¢

		Present	Proposed	Present	Proposed
Limited Off-Peak (A06)		Base Rates		Rates + Fuel	
Customer / Mo.	Residential	\$4.95	\$5.50	\$4.95	\$5.50
	Commercial Sec. 1 Phase	\$10.00	\$11.00	\$10.00	\$11.00
	Commercial Sec. 3 Phase	\$13.60	\$15.00	\$13.60	\$15.00
	Commercial Higher Voltages	\$60.00	\$60.00	\$60.00	\$60.00
Energy / kWh	Residential On-Peak	36.000 ¢	42.100 ¢	39.205 ¢	45.309 ¢
	Commercial On-Peak	36.000 ¢	42.100 ¢	39.245 ¢	45.307 ¢
	Residential Secondary	3.665 ¢	5.158 ¢	6.870 ¢	8.367 ¢
	Commercial Secondary	3.665 ¢	5.158 ¢	6.910 ¢	8.365 ¢
	Commercial Primary	3.560 ¢	5.022 ¢	6.805 ¢	8.229 ¢
	Commercial T Trnsfrmd	3.398 ¢	4.835 ¢	6.643 ¢	8.042 ¢
	Commercial Transmission	3.388 ¢	4.824 ¢	6.633 ¢	8.031 ¢

		Present	Proposed	Present	Proposed
Small General (A09, A10, A11, A13)		Base Rates		Rates + Fuel	
Customer / Mo.	Metered (A10)	\$10.00	\$11.50	\$10.00	\$11.50
	Unmetered (A09)	\$8.00	\$9.50	\$8.00	\$9.50
Demand / kW	Direct Current	\$3.61	\$3.95	\$3.61	\$3.95
Energy /kWh	Summer	9.256 ¢	11.980 ¢	12.815 ¢	15.497 ¢
	Winter	7.757 ¢	10.212 ¢	10.819 ¢	13.237 ¢

		Present	Proposed	Present	Proposed
Small Municipal Pumping (A40)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$10.00	\$11.50	\$10.00	\$11.50
Energy /kWh	Summer	9.256 ¢	11.910 ¢	12.815 ¢	15.427 ¢
	Winter	7.757 ¢	10.142 ¢	10.819 ¢	13.167 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Small General TOD (A12, A16, A18, A22)		Base Rates		Rates + Fuel	
Customer / Mo.	TOD Metered (A12)	\$12.00	\$13.50	\$12.00	\$13.50
	KWH Metered (A16)	\$10.00	\$11.50	\$10.00	\$11.50
	Unmetered (A18)	\$8.00	\$9.50	\$8.00	\$9.50
	Low Wattage <100W (A22)	\$0.30	\$0.33	\$0.30	\$0.33
	Low Wattage <400W (A22)	\$1.20	\$1.32	\$1.20	\$1.32
Energy / kWh	On-Peak Summer	14.880 ¢	19.586 ¢	18.439 ¢	23.103 ¢
	On-Peak Winter	11.723 ¢	15.686 ¢	14.785 ¢	18.711 ¢
	Off-Peak Summer	4.170 ¢	5.677 ¢	7.729 ¢	9.194 ¢
	Off-Peak Winter	4.170 ¢	5.677 ¢	7.232 ¢	8.702 ¢
	Constant Use - Summer	7.919 ¢	10.545 ¢	11.478 ¢	14.062 ¢
	Constant Use - Winter	6.814 ¢	9.180 ¢	9.876 ¢	12.205 ¢
Demand-Metered Voltage Discounts		Base Rates		Rates + Fuel	
Voltage Discount / kWh	Primary	0.105 ¢	0.136 ¢	0.105 ¢	0.136 ¢
	Transmission Transformed	0.267 ¢	0.323 ¢	0.267 ¢	0.323 ¢
	Transmission	0.277 ¢	0.334 ¢	0.277 ¢	0.334 ¢
Voltage Discount / kW	Primary	\$0.80	\$0.70	\$0.80	\$0.70
	Transmission Transformed	\$1.55	\$2.10	\$1.55	\$2.10
	Transmission	\$2.35	\$3.05	\$2.35	\$3.05

General (A14)		Base Rates		Rates + Fuel	
Customer / Mo.		\$25.64	\$25.98	\$25.64	\$25.98
Demand / kW	Summer	\$14.79	\$18.10	\$14.79	\$18.10
	Winter	\$10.49	\$13.50	\$10.49	\$13.50
Energy / kWh		3.407 ¢	4.993 ¢	6.551 ¢	8.151 ¢
Energy Credit / kWh		-1.518 ¢	-1.824 ¢	-1.518 ¢	-1.824 ¢

Municipal Pumping (A41)		Base Rates		Rates + Fuel	
Customer / Mo.		\$25.64	\$25.98	\$25.64	\$25.98
Demand / kW	Summer	\$14.79	\$18.10	\$14.79	\$18.10
	Winter	\$10.49	\$13.50	\$10.49	\$13.50
Energy / kWh		3.407 ¢	4.993 ¢	6.551 ¢	8.151 ¢
Energy Credit / kWh		-1.518 ¢	-1.824 ¢	-1.518 ¢	-1.824 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
General Time of Day (A15)		Base Rates		Rates + Fuel	
Electric Vehicle Fleet Pilot (A88, A89)					
Electric Vehicle Public Charging Pilot (A90)					
Customer / Mo.	Standard A15)	\$29.64	\$29.98	\$29.64	\$29.98
	kWh Metered (A17)	\$25.64	\$25.98	\$25.64	\$25.98
	Unmetered (A19)	\$21.64	\$21.98	\$21.64	\$21.98
On-Peak Demand / kW	Summer	\$14.79	\$18.10	\$14.79	\$18.10
	Winter	\$10.49	\$13.50	\$10.49	\$13.50
Off-Peak Demand / kW		\$2.35	\$3.05	\$2.35	\$3.05
Energy / kWh	On-Peak	4.855 ¢	6.851 ¢	8.787 ¢	10.865 ¢
	Off-Peak	2.341 ¢	3.606 ¢	4.912 ¢	6.126 ¢
Energy Credit / kWh		-1.518 ¢	-1.824 ¢	-1.518 ¢	-1.824 ¢
Hiawatha Light Rail Line (A29)		Base Rates		Rates + Fuel	
Customer / Mo.		\$100.00	\$100.00	\$100.00	\$100.00
Generation Demand / kW	Summer	\$8.71	\$9.39	\$8.71	\$9.39
	Winter	\$4.41	\$4.79	\$4.41	\$4.79
Transmission & Distribution Demand / kW		\$5.28	\$8.01	\$5.28	\$8.01
Off-Peak Demand / kW	Primary	\$1.55	\$2.35	\$1.55	\$2.35
Energy / kWh	On-Peak Primary	4.750 ¢	6.715 ¢	8.682 ¢	10.729 ¢
	Off-Peak Primary	2.236 ¢	3.470 ¢	4.807 ¢	5.990 ¢
Energy Credit / kWh		-1.303 ¢	-1.570 ¢	-1.303 ¢	-1.570 ¢
Peak-Controlled (A23)		Base Rates		Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
Firm Demand / kW	Summer	\$14.79	\$18.10	\$14.79	\$18.10
	Winter	\$10.49	\$13.50	\$10.49	\$13.50
Control Demand / kW	Tier 2 - Level A	\$8.88	\$11.90	\$8.88	\$11.90
	Tier 2 - Level B	\$7.86	\$10.77	\$7.86	\$10.77
	Tier 2 - Level C	\$7.34	\$10.23	\$7.34	\$10.23
	Tier 1 - Level B	\$7.15	\$10.05	\$7.15	\$10.05
	Tier 1 - Level C	\$6.56	\$9.42	\$6.56	\$9.42
	Tier 1 - Short Notice	\$6.09	\$8.92	\$6.09	\$8.92
Energy / kWh		3.407 ¢	4.993 ¢	6.551 ¢	8.151 ¢
Energy Credit / kWh		-1.518 ¢	-1.824 ¢	-1.518 ¢	-1.824 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Peak-Controlled TOD (A24)		Base Rates		Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$18.10	\$14.79	\$18.10
	Winter	\$10.49	\$13.50	\$10.49	\$13.50
Control Demand / kW	Tier 2 - Level A	\$8.88	\$11.90	\$8.88	\$11.90
	Tier 2 - Level B	\$7.86	\$10.77	\$7.86	\$10.77
	Tier 2 - Level C	\$7.34	\$10.23	\$7.34	\$10.23
	Tier 1 - Level B	\$7.15	\$10.05	\$7.15	\$10.05
	Tier 1 - Level C	\$6.56	\$9.42	\$6.56	\$9.42
	Tier 1 - Short Notice	\$6.09	\$8.92	\$6.09	\$8.92
Off-Peak Demand / kW		\$2.35	\$3.05	\$2.35	\$3.05
Energy / kWh	On-Peak	4.855 ¢	6.851 ¢	8.787 ¢	10.865 ¢
	Off-Peak	2.341 ¢	3.606 ¢	4.912 ¢	6.126 ¢
Energy Credit / kWh		-1.5180 ¢	-1.8240 ¢	-1.5180 ¢	-1.8240 ¢

		Present	Proposed	Present	Proposed
Tier 1 Energy-Controlled Rider (A27)		Base Rates		Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$18.10	\$14.79	\$18.10
	Winter	\$10.49	\$13.50	\$10.49	\$13.50
Control Demand / kW	Tier 1 - Level B	\$7.15	\$10.05	\$7.15	\$10.05
	Tier 1 - Level C	\$6.56	\$9.42	\$6.56	\$9.42
	Tier 1 - Short Notice	\$6.09	\$8.92	\$6.09	\$8.92
Off-Peak Demand / kW		\$2.35	\$3.05	\$2.35	\$3.05
Energy / kWh	Firm On-Peak	4.855 ¢	6.851 ¢	8.787 ¢	10.865 ¢
	Firm Off-Peak	2.341 ¢	3.606 ¢	4.912 ¢	6.126 ¢
	Controllable On-Peak	4.647 ¢	6.575 ¢	8.579 ¢	10.589 ¢
	Controllable Off-Peak	2.280 ¢	3.486 ¢	4.851 ¢	6.006 ¢
	Control Period Energy	9.000 ¢	9.000 ¢	12.932 ¢	13.014 ¢
Energy Credit / kWh		-1.518 ¢	-1.824 ¢	-1.518 ¢	-1.824 ¢

Comparison Of Present & Proposed Rates

	Present	Proposed
Fire & Civil Defense Siren (A42)		
HP Capacity / Mo.	\$0.76	\$0.81
Min Charge / Mo.	\$3.66	\$3.88

Standby Service Rider Supplemental Generation Service Rider				
Customer / Mo.			\$25.64	\$25.98
Demand / Contract kW	Standby	Unscheduled Maint	\$3.06	\$3.94
	Standby	Scheduled Maint	\$2.96	\$3.84
	Standby	Non-Firm	\$2.35	\$3.05
		Supplemental	\$3.40	\$4.39
Peak Surcharge / kWh	Standby	Summer	6.312 ¢	7.636 ¢
	Standby	Winter	4.130 ¢	5.302 ¢

Photovoltaic Demand Credit Rider (A85, A86)				
Customer / Mo.			\$25.75	\$25.98
Peak Credit / kWh	A85	Closed	7.1390 ¢	N/A
	A86	Standard	6.9648 ¢	8.4560 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Automatic Protective Lighting (A07)		Base Rates		Rates + Fuel	
Area	100 W HPSodium	\$7.41	\$10.01	\$8.39	\$10.95
	175 W Mercury	\$7.41	\$10.01	\$9.11	\$11.89
	250 W HPSodium	\$11.83	\$16.34	\$14.41	\$18.81
	400 W Mercury	\$11.83	\$16.34	\$15.70	\$20.49
	30-40W LED	\$7.28	\$9.60	\$7.56	\$9.87
	110-165W LED	\$11.33	\$15.16	\$12.41	\$16.20
Directional	250 W HPSodium	\$14.08	\$18.69	\$16.66	\$21.16
	400 W HPSodium	\$17.62	\$23.64	\$21.67	\$27.52
	<i>Proposed</i> 80-165 LED		\$17.89		\$18.69
	<i>Proposed</i> 140-200 LED		\$22.25		\$23.67
	1000 W Mercury	\$27.33	\$28.71	\$36.59	\$37.59

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Street Lighting System (A30)		Base Rates		Rates + Fuel	
Overhead	70 W HPSodium	\$9.63	\$12.81	\$10.31	\$13.46
	100 W HPSodium	\$10.17	\$13.51	\$11.15	\$14.45
	150 W HPSodium	\$10.95	\$14.64	\$12.39	\$16.02
	200 W HPSodium	\$12.88	\$16.84	\$14.87	\$18.75
	250 W HPSodium	\$13.87	\$18.16	\$16.45	\$20.63
	400 W HPSodium	\$16.85	\$22.19	\$20.90	\$26.07
	175 W Metal Halide	\$14.98	\$18.63	\$16.68	\$20.26
	30-40W LED	\$10.32	\$13.07	\$10.65	\$13.38
	50-75W LED	\$11.01	\$13.89	\$11.56	\$14.41
	110-165W LED	\$14.46	\$17.65	\$15.76	\$18.90
	200-250W LED	\$17.98	\$21.64	\$20.04	\$23.61
Underground	70 W HPSodium	\$19.54	\$24.92	\$20.22	\$25.57
	100 W HPSodium	\$20.07	\$25.61	\$21.05	\$26.55
	150 W HPSodium	\$20.86	\$26.76	\$22.30	\$28.14
	250 W HPSodium	\$23.38	\$29.97	\$25.96	\$32.44
	400 W HPSodium	\$26.06	\$33.77	\$30.11	\$37.65
	175 W Metal Halide	\$27.90	\$34.38	\$29.60	\$36.01
	30-40W LED	\$20.22	\$25.18	\$20.55	\$25.49
	50-75W LED	\$20.91	\$25.99	\$21.46	\$26.51
	110-165W LED	\$23.96	\$29.45	\$25.26	\$30.70
	200-250W LED	\$27.19	\$33.22	\$29.25	\$35.19
	Decorative UG	100 W HPSodium	\$31.67	\$39.80	\$32.65
150 W HPSodium		\$32.84	\$41.24	\$34.28	\$42.62
250 W HPSodium		\$34.89	\$44.08	\$37.47	\$46.55
400 W HPSodium		\$37.38	\$47.74	\$41.43	\$51.62
175 W Metal Halide		\$37.38	\$47.74	\$39.08	\$49.37
Pre-Pay Option	70 W HPSodium	\$5.97	\$7.54	\$6.65	\$8.19
	100 W HPSodium	\$6.66	\$8.35	\$7.64	\$9.29
	150 W HPSodium	\$7.54	\$9.45	\$8.98	\$10.83
	250 W HPSodium	\$9.61	\$12.12	\$12.19	\$14.59
	400 W HPSodium	\$12.42	\$15.66	\$16.47	\$19.54
	175 W Metal Halide	\$13.54	\$16.45	\$15.24	\$18.08
	30-40W LED	\$4.90	\$6.39	\$5.23	\$6.70
	50-75W LED	\$5.49	\$7.05	\$6.04	\$7.57
	110-165W LED	\$7.05	\$8.95	\$8.35	\$10.20
	200-250W LED	\$8.93	\$11.11	\$10.99	\$13.08

Comparison Of Present & Proposed Rates

	Present	Proposed	Present	Proposed
Street Lighting Energy (A32)	Base Rates		Rates + Fuel	
100 W Mercury	\$2.45	\$3.23	\$3.52	\$4.26
175 W Mercury	\$3.64	\$4.83	\$5.34	\$6.46
250 W Mercury	\$4.94	\$6.55	\$7.34	\$8.85
400 W Mercury	\$7.69	\$10.22	\$11.56	\$13.93
700 W Mercury	\$12.78	\$17.02	\$19.37	\$23.33
1000 W Mercury	\$17.77	\$23.69	\$27.03	\$32.57
1F72HO Fluorescent	\$3.61	\$3.93	\$4.70	\$4.98
<30W LED	\$1.06	\$1.13	\$1.27	\$1.33
30-45W LED	\$1.34	\$1.44	\$1.67	\$1.75
50-75W LED	\$1.85	\$1.99	\$2.40	\$2.52
110-165W LED	\$3.44	\$3.82	\$4.74	\$5.07
200-250W LED	\$5.14	\$5.71	\$7.20	\$7.68
50 W HPSodium	\$1.37	\$1.79	\$1.86	\$2.25
70 W HPSodium	\$1.73	\$2.27	\$2.41	\$2.92
100 W HPSodium	\$2.29	\$3.03	\$3.27	\$3.97
150 W HPSodium	\$3.14	\$4.16	\$4.58	\$5.53
200 W HPSodium	\$4.18	\$5.54	\$6.17	\$7.45
250 W HPSodium	\$5.28	\$7.01	\$7.86	\$9.48
400 W HPSodium	\$8.03	\$10.68	\$12.08	\$14.56
750 W HPSodium	\$13.78	\$18.36	\$20.90	\$25.20

Street Lighting Energy - Metered (A34)	Base Rates		Rates + Fuel	
Customer / Mo.	\$5.00	\$5.70	\$5.00	\$5.70
Energy Charge per kWh	4.534 ¢	6.052 ¢	7.046 ¢	8.464 ¢

Street Lighting Energy - City of St. Paul (A37)	Base Rates		Rates + Fuel	
100 W HPSodium	\$5.48	\$6.40	\$6.46	\$7.34
150 W HPSodium	\$6.14	\$7.19	\$7.58	\$8.57
250 W HPSodium	\$8.60	\$9.46	\$11.18	\$11.93

Comparison Of Present & Proposed Rates

Fuel Cost - Retail	Present			Proposed		
	Summer	Winter	Annual	Summer	Winter	Annual
Retail	3.454 ¢	2.971 ¢	3.149 ¢	3.454 ¢	2.971 ¢	3.149 ¢
Residential	3.515 ¢	3.024 ¢	3.205 ¢	3.520 ¢	3.028 ¢	3.209 ¢
C&I - Non-Demand	3.559 ¢	3.062 ¢	3.245 ¢	3.517 ¢	3.025 ¢	3.207 ¢
C&I-Dmd - Non-TOD			3.144 ¢			3.158 ¢
C&I-Dmd -TOD On-Peak			3.932 ¢			4.014 ¢
C&I-Dmd -TOD Off-Peak			2.571 ¢			2.520 ¢
Lighting			2.512 ¢			2.412 ¢

		Present	Proposed	Present	Proposed
Residential (A01, A03)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$8.00	\$9.50	\$8.00	\$9.50
	Overhead - Electric Sp Ht	\$10.00	\$11.50	\$10.00	\$11.50
	Underground	\$10.00	\$11.50	\$10.00	\$11.50
	Underground - Electric Sp Ht	\$12.00	\$13.50	\$12.00	\$13.50
Energy / kWh	Summer	10.301 ¢	14.453 ¢	13.816 ¢	17.973 ¢
	Winter	8.803 ¢	12.640 ¢	11.827 ¢	15.668 ¢
	Winter - Electric Space Heat	5.988 ¢	9.491 ¢	9.012 ¢	12.519 ¢

		Present	Proposed	Present	Proposed
Residential Time of Day (A02, A04)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$10.00	\$11.50	\$10.00	\$11.50
	Underground	\$12.00	\$13.50	\$12.00	\$13.50
	Overhead - Electric Sp Ht	\$12.00	\$13.50	\$12.00	\$13.50
	Underground - Electric Sp Ht	\$14.00	\$15.50	\$14.00	\$15.50
Energy / kWh	On-Peak Summer	20.497 ¢	28.299 ¢	24.012 ¢	31.819 ¢
	On-Peak Winter	16.508 ¢	23.546 ¢	19.532 ¢	26.574 ¢
	On-Peak Winter -Elec. Sp Ht	9.284 ¢	15.788 ¢	12.308 ¢	18.816 ¢
	Off-Peak Summer	4.170 ¢	5.916 ¢	7.685 ¢	9.436 ¢
	Off-Peak Winter	4.170 ¢	5.916 ¢	7.194 ¢	8.944 ¢

		Present	Proposed	Present	Proposed
Res Electric Vehicle (A08, A80, A81, A82, A83)		Base Rates		Rates + Fuel	
Customer / Mo.	A08 EV Service	\$4.95	\$5.50	\$4.95	\$5.50
	A80 EV Pilot Bundled	\$16.48	\$16.48	\$16.48	\$16.48
	A81 EV Pilot Pre-Pay	\$6.68	\$6.68	\$6.68	\$6.68
	A82 EV Pilot Bundled	\$30.65	\$ 36.59	\$ 42.50	\$ 47.36
	A83 EV Pilot Pre-Pay	\$20.85	\$ 26.79	\$ 32.65	\$ 37.56
Energy / kWh	On-Peak Summer	20.497 ¢	28.299 ¢	24.012 ¢	31.819 ¢
	On-Peak Winter	16.508 ¢	23.546 ¢	19.532 ¢	26.574 ¢
	Off-Peak Summer	4.170 ¢	5.916 ¢	7.685 ¢	9.436 ¢
	Off-Peak Winter	4.170 ¢	5.916 ¢	7.194 ¢	8.944 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Residential Time of Use Pilot (A72, A74)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$8.00	\$9.50	\$8.00	\$9.50
	Underground	\$10.00	\$11.50	\$10.00	\$11.50
Energy / kWh	On-Peak Summer	22.576 ¢	30.461 ¢	26.091 ¢	33.982 ¢
	On-Peak Winter	19.266 ¢	27.342 ¢	22.290 ¢	30.370 ¢
	Mid-Peak Summer	9.013 ¢	12.544 ¢	12.528 ¢	16.065 ¢
	Mid-Peak Winter	7.515 ¢	11.054 ¢	10.539 ¢	14.082 ¢
	Off-Peak Summer	2.784 ¢	4.435 ¢	6.299 ¢	7.956 ¢
	Off-Peak Winter	2.784 ¢	4.435 ¢	5.808 ¢	7.463 ¢

		Present	Proposed	Present	Proposed
Energy-Controlled Non-Demand (A05)		Base Rates		Rates + Fuel	
Customer / Mo.		\$4.95	\$5.50	\$4.95	\$5.50
Energy / kWh	Standard Resid.	4.4870 ¢	7.6600 ¢	7.692 ¢	10.869 ¢
	Standard Comm.	4.4870 ¢	7.6600 ¢	7.732 ¢	10.867 ¢
	Optional Resid. - Summer	10.301 ¢	14.453 ¢	13.816 ¢	17.973 ¢
	Optional Comm.- Summer	9.256 ¢	12.554 ¢	12.815 ¢	16.071 ¢

		Present	Proposed	Present	Proposed
Limited Off-Peak (A06)		Base Rates		Rates + Fuel	
Customer / Mo.	Residential	\$4.95	\$5.50	\$4.95	\$5.50
	Commercial Sec. 1 Phase	\$10.00	\$11.00	\$10.00	\$11.00
	Commercial Sec. 3 Phase	\$13.60	\$15.00	\$13.60	\$15.00
	Commercial Higher Voltages	\$60.00	\$60.00	\$60.00	\$60.00
Energy / kWh	Residential On-Peak	36.000 ¢	42.100 ¢	39.205 ¢	45.309 ¢
	Commercial On-Peak	36.000 ¢	42.100 ¢	39.245 ¢	45.307 ¢
	Residential Secondary	3.665 ¢	5.401 ¢	6.870 ¢	8.610 ¢
	Commercial Secondary	3.665 ¢	5.401 ¢	6.910 ¢	8.608 ¢
	Commercial Primary	3.560 ¢	5.264 ¢	6.805 ¢	8.471 ¢
	Commercial T Trnsfrmd	3.398 ¢	5.067 ¢	6.643 ¢	8.274 ¢
	Commercial Transmission	3.388 ¢	5.072 ¢	6.633 ¢	8.279 ¢

		Present	Proposed	Present	Proposed
Small General (A09, A10, A11, A13)		Base Rates		Rates + Fuel	
Customer / Mo.	Metered (A10)	\$10.00	\$11.50	\$10.00	\$11.50
	Unmetered (A09)	\$8.00	\$9.50	\$8.00	\$9.50
Demand / kW	Direct Current	\$3.61	\$3.95	\$3.61	\$3.95
Energy / kWh	Summer	9.256 ¢	12.554 ¢	12.815 ¢	16.071 ¢
	Winter	7.757 ¢	10.740 ¢	10.819 ¢	13.765 ¢

		Present	Proposed	Present	Proposed
Small Municipal Pumping (A40)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$10.00	\$11.50	\$10.00	\$11.50
Energy / kWh	Summer	9.256 ¢	12.514 ¢	12.815 ¢	16.031 ¢
	Winter	7.757 ¢	10.700 ¢	10.819 ¢	13.725 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Small General TOD (A12, A16, A18, A22)		Base Rates		Rates + Fuel	
Customer / Mo.	TOD Metered (A12)	\$12.00	\$13.50	\$12.00	\$13.50
	KWH Metered (A16)	\$10.00	\$11.50	\$10.00	\$11.50
	Unmetered (A18)	\$8.00	\$9.50	\$8.00	\$9.50
	Low Wattage <100W (A22)	\$0.30	\$0.33	\$0.30	\$0.33
	Low Wattage <400W (A22)	\$1.20	\$1.32	\$1.20	\$1.32
Energy / kWh	On-Peak Summer	14.880 ¢	20.560 ¢	18.439 ¢	24.077 ¢
	On-Peak Winter	11.723 ¢	16.558 ¢	14.785 ¢	19.583 ¢
	Off-Peak Summer	4.170 ¢	5.918 ¢	7.729 ¢	9.435 ¢
	Off-Peak Winter	4.170 ¢	5.918 ¢	7.232 ¢	8.943 ¢
	Constant Use - Summer	7.919 ¢	11.043 ¢	11.478 ¢	14.560 ¢
	Constant Use - Winter	6.814 ¢	9.642 ¢	9.876 ¢	12.667 ¢
Demand-Metered Voltage Discounts		Base Rates		Rates + Fuel	
Voltage Discount / kWh	Primary	0.105 ¢	0.137 ¢	0.105 ¢	0.137 ¢
	Transmission Transformed	0.267 ¢	0.334 ¢	0.267 ¢	0.334 ¢
	Transmission	0.277 ¢	0.329 ¢	0.277 ¢	0.329 ¢
Voltage Discount / kW	Primary	\$0.80	\$0.70	\$0.80	\$0.70
	Transmission Transformed	\$1.55	\$2.35	\$1.55	\$2.35
	Transmission	\$2.35	\$3.35	\$2.35	\$3.35

General (A14)		Base Rates		Rates + Fuel	
Customer / Mo.		\$25.64	\$25.98	\$25.64	\$25.98
Demand / kW	Summer	\$14.79	\$18.52	\$14.79	\$18.52
	Winter	\$10.49	\$13.92	\$10.49	\$13.92
Energy / kWh		3.407 ¢	5.213 ¢	6.551 ¢	8.371 ¢
Energy Credit / kWh		-1.518 ¢	-1.878 ¢	-1.518 ¢	-1.878 ¢

Municipal Pumping (A41)		Base Rates		Rates + Fuel	
Customer / Mo.		\$25.64	\$25.98	\$25.64	\$25.98
Demand / kW	Summer	\$14.79	\$18.52	\$14.79	\$18.52
	Winter	\$10.49	\$13.92	\$10.49	\$13.92
Energy / kWh		3.407 ¢	5.213 ¢	6.551 ¢	8.371 ¢
Energy Credit / kWh		-1.518 ¢	-1.878 ¢	-1.518 ¢	-1.878 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
General Time of Day (A15)		Base Rates		Rates + Fuel	
Electric Vehicle Fleet Pilot (A88, A89)					
Electric Vehicle Public Charging Pilot (A90)					
Customer / Mo.	Standard A15)	\$29.64	\$29.98	\$29.64	\$29.98
	kWh Metered (A17)	\$25.64	\$25.98	\$25.64	\$25.98
	Unmetered (A19)	\$21.64	\$21.98	\$21.64	\$21.98
On-Peak Demand / kW	Summer	\$14.79	\$18.52	\$14.79	\$18.52
	Winter	\$10.49	\$13.92	\$10.49	\$13.92
Off-Peak Demand / kW		\$2.35	\$3.35	\$2.35	\$3.35
Energy / kWh	On-Peak	4.855 ¢	7.154 ¢	8.787 ¢	11.168 ¢
	Off-Peak	2.341 ¢	3.765 ¢	4.912 ¢	6.285 ¢
Energy Credit / kWh		-1.518 ¢	-1.878 ¢	-1.518 ¢	-1.878 ¢

Hiawatha Light Rail Line (A29)		Base Rates		Rates + Fuel	
Customer / Mo.		\$100.00	\$100.00	\$100.00	\$100.00
Generation Demand / kW	Summer	\$8.71	\$9.03	\$8.71	\$9.03
	Winter	\$4.41	\$4.43	\$4.41	\$4.43
Transmission & Distribution Demand / kW		\$5.28	\$8.79	\$5.28	\$8.79
Off-Peak Demand / kW	Primary	\$1.55	\$2.65	\$1.55	\$2.65
Energy / kWh	On-Peak Primary	4.750 ¢	7.017 ¢	8.682 ¢	11.031 ¢
	Off-Peak Primary	2.236 ¢	3.628 ¢	4.807 ¢	6.148 ¢
Energy Credit / kWh		-1.303 ¢	-1.610 ¢	-1.303 ¢	-1.610 ¢

Peak-Controlled (A23)		Base Rates		Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
Firm Demand / kW	Summer	\$14.79	\$18.52	\$14.79	\$18.52
	Winter	\$10.49	\$13.92	\$10.49	\$13.92
Control Demand / kW	Tier 2 - Level A	\$8.88	\$12.32	\$8.88	\$12.32
	Tier 2 - Level B	\$7.86	\$11.19	\$7.86	\$11.19
	Tier 2 - Level C	\$7.34	\$10.65	\$7.34	\$10.65
	Tier 1 - Level B	\$7.15	\$10.47	\$7.15	\$10.47
	Tier 1 - Level C	\$6.56	\$9.84	\$6.56	\$9.84
	Tier 1 - Short Notice	\$6.09	\$9.34	\$6.09	\$9.34
Energy / kWh		3.407 ¢	5.213 ¢	6.551 ¢	8.371 ¢
Energy Credit / kWh		-1.518 ¢	-1.878 ¢	-1.518 ¢	-1.878 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Peak-Controlled TOD (A24)		Base Rates		Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$18.52	\$14.79	\$18.52
	Winter	\$10.49	\$13.92	\$10.49	\$13.92
Control Demand / kW	Tier 2 - Level A	\$8.88	\$12.32	\$8.88	\$12.32
	Tier 2 - Level B	\$7.86	\$11.19	\$7.86	\$11.19
	Tier 2 - Level C	\$7.34	\$10.65	\$7.34	\$10.65
	Tier 1 - Level B	\$7.15	\$10.47	\$7.15	\$10.47
	Tier 1 - Level C	\$6.56	\$9.84	\$6.56	\$9.84
	Tier 1 - Short Notice	\$6.09	\$9.34	\$6.09	\$9.34
Off-Peak Demand / kW		\$2.35	\$3.35	\$2.35	\$3.35
Energy / kWh	On-Peak	4.855 ¢	7.154 ¢	8.787 ¢	11.168 ¢
	Off-Peak	2.341 ¢	3.765 ¢	4.912 ¢	6.285 ¢
Energy Credit / kWh		-1.5180 ¢	-1.8780 ¢	-1.5180 ¢	-1.8780 ¢

		Present	Proposed	Present	Proposed
Tier 1 Energy-Controlled Rider (A27)		Base Rates		Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$18.52	\$14.79	\$18.52
	Winter	\$10.49	\$13.92	\$10.49	\$13.92
Control Demand / kW	Tier 1 - Level B	\$7.15	\$10.47	\$7.15	\$10.47
	Tier 1 - Level C	\$6.56	\$9.84	\$6.56	\$9.84
	Tier 1 - Short Notice	\$6.09	\$9.34	\$6.09	\$9.34
Off-Peak Demand / kW		\$2.35	\$3.35	\$2.35	\$3.35
Energy / kWh	Firm On-Peak	4.855 ¢	7.154 ¢	8.787 ¢	11.168 ¢
	Firm Off-Peak	2.341 ¢	3.765 ¢	4.912 ¢	6.285 ¢
	Controllable On-Peak	4.647 ¢	6.945 ¢	8.579 ¢	10.959 ¢
	Controllable Off-Peak	2.280 ¢	3.645 ¢	4.851 ¢	6.165 ¢
	Control Period Energy	9.000 ¢	9.000 ¢	12.932 ¢	13.014 ¢
Energy Credit / kWh		-1.518 ¢	-1.878 ¢	-1.518 ¢	-1.878 ¢

	Present	Proposed
Fire & Civil Defense Siren (A42)		
HP Capacity / Mo.	\$0.76	\$0.81
Min Charge / Mo.	\$3.66	\$3.88

Standby Service Rider Supplemental Generation Service Rider				
Customer / Mo.			\$25.64	\$25.98
Demand / Contract kW	Standby	Unscheduled Maint	\$3.06	\$4.25
	Standby	Scheduled Maint	\$2.96	\$4.15
	Standby	Non-Firm	\$2.35	\$3.35
		Supplemental	\$3.40	\$4.70
Peak Surcharge / kWh	Standby	Summer	6.312 ¢	7.697 ¢
	Standby	Winter	4.130 ¢	5.363 ¢

Photovoltaic Demand Credit Rider (A85, A86)				
Customer / Mo.			\$25.75	\$25.98
Peak Credit / kWh	A85	Closed	7.1390 ¢	N/A
	A86	Standard	6.9648 ¢	8.5407 ¢

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Automatic Protective Lighting (A07)		Base Rates		Rates + Fuel	
Area	100 W HPSodium	\$7.41	\$9.98	\$8.39	\$10.92
	175 W Mercury	\$7.41	\$9.98	\$9.11	\$11.85
	250 W HPSodium	\$11.83	\$16.26	\$14.40	\$18.73
	400 W Mercury	\$11.83	\$16.26	\$15.68	\$20.40
	30-40W LED	\$7.28	\$9.58	\$7.56	\$9.84
	110-165W LED	\$11.33	\$15.11	\$12.41	\$16.15
Directional	250 W HPSodium	\$14.08	\$18.61	\$16.65	\$21.08
	400 W HPSodium	\$17.62	\$23.55	\$21.66	\$27.42
	<i>Proposed</i> 80-165 LED		\$17.81		\$18.61
	<i>Proposed</i> 140-200 LED		\$22.16		\$23.57
	1000 W Mercury	\$27.33	\$28.71	\$36.56	\$37.56

Comparison Of Present & Proposed Rates

		Present	Proposed	Present	Proposed
Street Lighting System (A30)		Base Rates		Rates + Fuel	
Overhead	70 W HPSodium	\$9.63	\$12.89	\$10.31	\$13.54
	100 W HPSodium	\$10.17	\$13.59	\$11.15	\$14.53
	150 W HPSodium	\$10.95	\$14.74	\$12.38	\$16.11
	200 W HPSodium	\$12.88	\$16.97	\$14.87	\$18.87
	250 W HPSodium	\$13.87	\$18.28	\$16.44	\$20.75
	400 W HPSodium	\$16.85	\$22.35	\$20.89	\$26.22
	175 W Metal Halide	\$14.98	\$18.75	\$16.68	\$20.38
	30-40W LED	\$10.32	\$13.15	\$10.65	\$13.46
	50-75W LED	\$11.01	\$13.97	\$11.55	\$14.49
	110-165W LED	\$14.46	\$17.76	\$15.76	\$19.01
	200-250W LED	\$17.98	\$21.78	\$20.03	\$23.75
Underground	70 W HPSodium	\$19.54	\$25.08	\$20.22	\$25.73
	100 W HPSodium	\$20.07	\$25.77	\$21.05	\$26.71
	150 W HPSodium	\$20.86	\$26.93	\$22.29	\$28.30
	250 W HPSodium	\$23.38	\$30.15	\$25.95	\$32.62
	400 W HPSodium	\$26.06	\$33.99	\$30.10	\$37.86
	175 W Metal Halide	\$27.90	\$34.60	\$29.60	\$36.23
	30-40W LED	\$20.22	\$25.33	\$20.55	\$25.64
	50-75W LED	\$20.91	\$26.15	\$21.45	\$26.67
	110-165W LED	\$23.96	\$29.63	\$25.26	\$30.88
200-250W LED	\$27.19	\$33.42	\$29.24	\$35.39	
Decorative UG	100 W HPSodium	\$31.67	\$40.04	\$32.65	\$40.98
	150 W HPSodium	\$32.84	\$41.49	\$34.27	\$42.86
	250 W HPSodium	\$34.89	\$44.35	\$37.46	\$46.82
	400 W HPSodium	\$37.38	\$48.05	\$41.42	\$51.92
	175 W Metal Halide	\$37.38	\$48.05	\$39.08	\$49.68
Pre-Pay Option	70 W HPSodium	\$5.97	\$7.59	\$6.65	\$8.24
	100 W HPSodium	\$6.66	\$8.41	\$7.64	\$9.35
	150 W HPSodium	\$7.54	\$9.52	\$8.97	\$10.89
	250 W HPSodium	\$9.61	\$12.20	\$12.18	\$14.67
	400 W HPSodium	\$12.42	\$15.78	\$16.46	\$19.65
	175 W Metal Halide	\$13.54	\$16.56	\$15.24	\$18.19
	30-40W LED	\$4.90	\$6.43	\$5.23	\$6.74
	50-75W LED	\$5.49	\$7.08	\$6.03	\$7.60
	110-165W LED	\$7.05	\$9.01	\$8.35	\$10.26
200-250W LED	\$8.93	\$11.18	\$10.98	\$13.15	

Comparison Of Present & Proposed Rates

	Present	Proposed	Present	Proposed
Street Lighting Energy (A32)	Base Rates		Rates + Fuel	
100 W Mercury	\$2.45	\$3.32	\$3.51	\$4.34
175 W Mercury	\$3.64	\$4.97	\$5.34	\$6.60
250 W Mercury	\$4.94	\$6.75	\$7.33	\$9.04
400 W Mercury	\$7.69	\$10.54	\$11.54	\$14.24
700 W Mercury	\$12.78	\$17.56	\$19.35	\$23.86
1000 W Mercury	\$17.77	\$24.46	\$27.00	\$33.31
1F72HO Fluorescent	\$3.61	\$3.93	\$4.70	\$4.98
<30W LED	\$1.06	\$1.13	\$1.27	\$1.33
30-45W LED	\$1.34	\$1.44	\$1.67	\$1.75
50-75W LED	\$1.85	\$1.98	\$2.39	\$2.50
110-165W LED	\$3.44	\$3.93	\$4.74	\$5.18
200-250W LED	\$5.14	\$5.88	\$7.19	\$7.85
50 W HPSodium	\$1.37	\$1.83	\$1.86	\$2.29
70 W HPSodium	\$1.73	\$2.33	\$2.41	\$2.98
100 W HPSodium	\$2.29	\$3.11	\$3.27	\$4.05
150 W HPSodium	\$3.14	\$4.27	\$4.57	\$5.65
200 W HPSodium	\$4.18	\$5.71	\$6.17	\$7.61
250 W HPSodium	\$5.28	\$7.22	\$7.85	\$9.69
400 W HPSodium	\$8.03	\$11.02	\$12.07	\$14.89
750 W HPSodium	\$13.78	\$18.95	\$20.88	\$25.77

Street Lighting Energy - Metered (A34)	Base Rates		Rates + Fuel	
Customer / Mo.	\$5.00	\$5.70	\$5.00	\$5.70
Energy Charge per kWh	4.534 ¢	6.253 ¢	7.046 ¢	8.665 ¢

Street Lighting Energy - City of St. Paul (A37)	Base Rates		Rates + Fuel	
100 W HPSodium	\$5.48	\$6.40	\$6.46	\$7.34
150 W HPSodium	\$6.14	\$7.20	\$7.57	\$8.57
250 W HPSodium	\$8.60	\$9.45	\$11.17	\$11.92

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE (Overhead) - A01

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$40.78	\$46.23	\$5.45	13.37%
	300	\$47.22	\$53.45	\$6.23	13.21%
	400	\$60.09	\$67.90	\$7.80	12.98%
	500	\$72.97	\$82.34	\$9.37	12.84%
	600	\$85.85	\$96.79	\$10.94	12.74%
	675	\$95.51	\$107.62	\$12.11	12.68%
	750	\$105.17	\$118.46	\$13.29	12.64%
	1000	\$137.36	\$154.57	\$17.21	12.53%
	1500	\$201.76	\$226.80	\$25.05	12.41%
	2000	\$266.15	\$299.03	\$32.88	12.36%
	3000	\$394.93	\$443.49	\$48.56	12.30%
	4000	\$523.72	\$587.95	\$64.23	12.26%
5000	\$652.50	\$732.41	\$79.91	12.25%	
SUMMER	250	\$45.75	\$51.73	\$5.98	13.07%
	300	\$53.18	\$60.05	\$6.87	12.92%
	400	\$68.05	\$76.70	\$8.65	12.71%
	500	\$82.92	\$93.35	\$10.43	12.58%
	600	\$97.79	\$110.00	\$12.21	12.48%
	675	\$108.94	\$122.48	\$13.54	12.43%
	750	\$120.09	\$134.97	\$14.88	12.39%
	1000	\$157.26	\$176.59	\$19.32	12.29%
	1500	\$231.60	\$259.82	\$28.22	12.19%
	2000	\$305.94	\$343.06	\$37.12	12.13%
	3000	\$454.62	\$509.53	\$54.91	12.08%
	4000	\$603.30	\$676.00	\$72.70	12.05%
5000	\$751.98	\$842.48	\$90.50	12.03%	
AVERAGE MONTHLY	250	\$42.43	\$48.06	\$5.63	13.26%
	300	\$49.20	\$55.65	\$6.45	13.10%
	400	\$62.75	\$70.83	\$8.08	12.88%
	500	\$76.29	\$86.01	\$9.72	12.74%
	600	\$89.83	\$101.19	\$11.36	12.65%
	675	\$99.99	\$112.58	\$12.59	12.59%
	750	\$110.14	\$123.96	\$13.82	12.55%
	1000	\$144.00	\$161.91	\$17.91	12.44%
	1500	\$211.70	\$237.81	\$26.10	12.33%
	2000	\$279.41	\$313.71	\$34.29	12.27%
	3000	\$414.83	\$465.51	\$50.68	12.22%
	4000	\$550.25	\$617.30	\$67.06	12.19%
5000	\$685.66	\$769.10	\$83.44	12.17%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE - SPACE HEATING (Overhead) - A01

Energy in kWh	Monthly Bill		Increase		
	Present	Proposed	Amount	Percent	
WINTER	250	\$35.74	\$40.35	\$4.62	12.92%
	300	\$40.77	\$46.00	\$5.23	12.83%
	400	\$50.83	\$57.30	\$6.47	12.72%
	500	\$60.90	\$68.60	\$7.70	12.64%
	600	\$70.96	\$79.89	\$8.93	12.59%
	675	\$78.51	\$88.37	\$9.86	12.56%
	750	\$86.06	\$96.84	\$10.78	12.53%
	1000	\$111.21	\$125.08	\$13.87	12.47%
	1500	\$161.53	\$181.57	\$20.04	12.40%
	2000	\$211.85	\$238.05	\$26.20	12.37%
	3000	\$312.48	\$351.02	\$38.54	12.33%
4000	\$413.12	\$463.99	\$50.87	12.31%	
5000	\$513.75	\$576.96	\$63.21	12.30%	
SUMMER	250	\$47.75	\$53.73	\$5.98	12.52%
	300	\$55.18	\$62.05	\$6.87	12.45%
	400	\$70.05	\$78.70	\$8.65	12.35%
	500	\$84.92	\$95.35	\$10.43	12.28%
	600	\$99.79	\$112.00	\$12.21	12.23%
	675	\$110.94	\$124.48	\$13.54	12.21%
	750	\$122.09	\$136.97	\$14.88	12.19%
	1000	\$159.26	\$178.59	\$19.32	12.13%
	1500	\$233.60	\$261.82	\$28.22	12.08%
	2000	\$307.94	\$345.06	\$37.12	12.05%
	3000	\$456.62	\$511.53	\$54.91	12.03%
4000	\$605.30	\$678.00	\$72.70	12.01%	
5000	\$753.98	\$844.48	\$90.50	12.00%	
AVERAGE MONTHLY	250	\$39.74	\$44.81	\$5.07	12.76%
	300	\$45.57	\$51.35	\$5.78	12.68%
	400	\$57.24	\$64.43	\$7.19	12.57%
	500	\$68.90	\$77.51	\$8.61	12.49%
	600	\$80.57	\$90.59	\$10.02	12.44%
	675	\$89.32	\$100.41	\$11.09	12.41%
	750	\$98.07	\$110.22	\$12.15	12.39%
	1000	\$127.23	\$142.92	\$15.69	12.33%
	1500	\$185.55	\$208.32	\$22.76	12.27%
	2000	\$243.88	\$273.72	\$29.84	12.24%
	3000	\$360.53	\$404.53	\$44.00	12.20%
4000	\$477.18	\$535.33	\$58.15	12.19%	
5000	\$593.83	\$666.13	\$72.30	12.18%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE (Underground) - A03

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$42.78	\$48.23	\$5.45	12.74%
	300	\$49.22	\$55.45	\$6.23	12.67%
	400	\$62.09	\$69.90	\$7.80	12.57%
	500	\$74.97	\$84.34	\$9.37	12.50%
	600	\$87.85	\$98.79	\$10.94	12.45%
	675	\$97.51	\$109.62	\$12.11	12.42%
	750	\$107.17	\$120.46	\$13.29	12.40%
	1000	\$139.36	\$156.57	\$17.21	12.35%
	1500	\$203.76	\$228.80	\$25.05	12.29%
	2000	\$268.15	\$301.03	\$32.88	12.26%
	3000	\$396.93	\$445.49	\$48.56	12.23%
	4000	\$525.72	\$589.95	\$64.23	12.22%
5000	\$654.50	\$734.41	\$79.91	12.21%	
SUMMER	250	\$47.75	\$53.73	\$5.98	12.52%
	300	\$55.18	\$62.05	\$6.87	12.45%
	400	\$70.05	\$78.70	\$8.65	12.35%
	500	\$84.92	\$95.35	\$10.43	12.28%
	600	\$99.79	\$112.00	\$12.21	12.23%
	675	\$110.94	\$124.48	\$13.54	12.21%
	750	\$122.09	\$136.97	\$14.88	12.19%
	1000	\$159.26	\$178.59	\$19.32	12.13%
	1500	\$233.60	\$261.82	\$28.22	12.08%
	2000	\$307.94	\$345.06	\$37.12	12.05%
	3000	\$456.62	\$511.53	\$54.91	12.03%
	4000	\$605.30	\$678.00	\$72.70	12.01%
5000	\$753.98	\$844.48	\$90.50	12.00%	
AVERAGE MONTHLY	250	\$44.43	\$50.06	\$5.63	12.66%
	300	\$51.20	\$57.65	\$6.45	12.59%
	400	\$64.75	\$72.83	\$8.08	12.49%
	500	\$78.29	\$88.01	\$9.72	12.42%
	600	\$91.83	\$103.19	\$11.36	12.37%
	675	\$101.99	\$114.58	\$12.59	12.34%
	750	\$112.14	\$125.96	\$13.82	12.32%
	1000	\$146.00	\$163.91	\$17.91	12.27%
	1500	\$213.70	\$239.81	\$26.10	12.21%
	2000	\$281.41	\$315.71	\$34.29	12.19%
	3000	\$416.83	\$467.51	\$50.68	12.16%
	4000	\$552.25	\$619.30	\$67.06	12.14%
5000	\$687.66	\$771.10	\$83.44	12.13%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE - SPACE HEATING (Underground) - A03

Energy in kWh	Monthly Bill		Increase		
	Present	Proposed	Amount	Percent	
WINTER	250	\$37.74	\$42.35	\$4.62	12.23%
	300	\$42.77	\$48.00	\$5.23	12.23%
	400	\$52.83	\$59.30	\$6.47	12.24%
	500	\$62.90	\$70.60	\$7.70	12.24%
	600	\$72.96	\$81.89	\$8.93	12.24%
	675	\$80.51	\$90.37	\$9.86	12.25%
	750	\$88.06	\$98.84	\$10.78	12.25%
	1000	\$113.21	\$127.08	\$13.87	12.25%
	1500	\$163.53	\$183.57	\$20.04	12.25%
	2000	\$213.85	\$240.05	\$26.20	12.25%
	3000	\$314.48	\$353.02	\$38.54	12.25%
	4000	\$415.12	\$465.99	\$50.87	12.26%
5000	\$515.75	\$578.96	\$63.21	12.26%	
SUMMER	250	\$49.75	\$55.73	\$5.98	12.02%
	300	\$57.18	\$64.05	\$6.87	12.01%
	400	\$72.05	\$80.70	\$8.65	12.00%
	500	\$86.92	\$97.35	\$10.43	12.00%
	600	\$101.79	\$114.00	\$12.21	11.99%
	675	\$112.94	\$126.48	\$13.54	11.99%
	750	\$124.09	\$138.97	\$14.88	11.99%
	1000	\$161.26	\$180.59	\$19.32	11.98%
	1500	\$235.60	\$263.82	\$28.22	11.98%
	2000	\$309.94	\$347.06	\$37.12	11.98%
	3000	\$458.62	\$513.53	\$54.91	11.97%
	4000	\$607.30	\$680.00	\$72.70	11.97%
5000	\$755.98	\$846.48	\$90.50	11.97%	
AVERAGE MONTHLY	250	\$41.74	\$46.81	\$5.07	12.15%
	300	\$47.57	\$53.35	\$5.78	12.15%
	400	\$59.24	\$66.43	\$7.19	12.14%
	500	\$70.90	\$79.51	\$8.61	12.14%
	600	\$82.57	\$92.59	\$10.02	12.14%
	675	\$91.32	\$102.41	\$11.09	12.14%
	750	\$100.07	\$112.22	\$12.15	12.14%
	1000	\$129.23	\$144.92	\$15.69	12.14%
	1500	\$187.55	\$210.32	\$22.76	12.14%
	2000	\$245.88	\$275.72	\$29.84	12.14%
	3000	\$362.53	\$406.53	\$44.00	12.14%
	4000	\$479.18	\$537.33	\$58.15	12.14%
5000	\$595.83	\$668.13	\$72.30	12.14%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL TIME OF DAY SERVICE (Overhead) - A02

35% On-Peak
 65% Off-Peak

Energy in kWh	Monthly Bill		Increase		
	Present	Proposed	Amount	Percent	
WINTER	250	\$41.99	\$47.04	\$5.05	12.02%
	300	\$48.27	\$54.02	\$5.75	11.91%
	400	\$60.84	\$67.99	\$7.16	11.76%
	500	\$73.40	\$81.96	\$8.56	11.67%
	600	\$85.96	\$95.93	\$9.97	11.60%
	675	\$95.39	\$106.41	\$11.02	11.56%
	750	\$104.81	\$116.89	\$12.08	11.52%
	1000	\$136.22	\$151.81	\$15.59	11.45%
	1500	\$199.04	\$221.66	\$22.63	11.37%
	2000	\$261.86	\$291.51	\$29.66	11.33%
	3000	\$387.49	\$431.21	\$43.72	11.28%
	4000	\$513.13	\$570.91	\$57.78	11.26%
5000	\$638.77	\$710.61	\$71.84	11.25%	
SUMMER	250	\$46.71	\$52.19	\$5.48	11.73%
	300	\$53.93	\$60.20	\$6.27	11.62%
	400	\$68.39	\$76.23	\$7.85	11.48%
	500	\$82.84	\$92.27	\$9.43	11.38%
	600	\$97.29	\$108.30	\$11.01	11.31%
	675	\$108.13	\$120.32	\$12.19	11.27%
	750	\$118.97	\$132.34	\$13.38	11.24%
	1000	\$155.09	\$172.42	\$17.32	11.17%
	1500	\$227.35	\$252.57	\$25.22	11.09%
	2000	\$299.61	\$332.72	\$33.11	11.05%
	3000	\$444.12	\$493.03	\$48.91	11.01%
	4000	\$588.64	\$653.34	\$64.70	10.99%
5000	\$733.15	\$813.64	\$80.49	10.98%	
AVERAGE MONTHLY	250	\$43.56	\$48.75	\$5.19	11.92%
	300	\$50.16	\$56.08	\$5.92	11.81%
	400	\$63.35	\$70.74	\$7.39	11.66%
	500	\$76.55	\$85.40	\$8.85	11.56%
	600	\$89.74	\$100.05	\$10.32	11.49%
	675	\$99.63	\$111.05	\$11.41	11.46%
	750	\$109.53	\$122.04	\$12.51	11.42%
	1000	\$142.51	\$158.68	\$16.17	11.35%
	1500	\$208.48	\$231.96	\$23.49	11.27%
	2000	\$274.44	\$305.25	\$30.81	11.23%
	3000	\$406.37	\$451.82	\$45.45	11.18%
	4000	\$538.30	\$598.39	\$60.09	11.16%
5000	\$670.23	\$744.95	\$74.72	11.15%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL TIME OF DAY SERVICE - SPACE HEATING (Overhead) - A02

35% On-Peak
 65% Off-Peak

Energy in kWh	Monthly Bill		Increase		
	Present	Proposed	Amount	Percent	
WINTER	250	\$37.67	\$42.13	\$4.47	11.86%
	300	\$42.69	\$47.74	\$5.05	11.84%
	400	\$52.72	\$58.95	\$6.23	11.81%
	500	\$62.76	\$70.16	\$7.40	11.79%
	600	\$72.79	\$81.37	\$8.57	11.78%
	675	\$80.32	\$89.77	\$9.45	11.77%
	750	\$87.85	\$98.18	\$10.33	11.76%
	1000	\$112.93	\$126.20	\$13.27	11.75%
	1500	\$163.11	\$182.24	\$19.13	11.73%
	2000	\$213.29	\$238.29	\$25.00	11.72%
	3000	\$313.64	\$350.38	\$36.74	11.71%
	4000	\$414.00	\$462.47	\$48.47	11.71%
5000	\$514.35	\$574.55	\$60.20	11.70%	
SUMMER	250	\$48.71	\$54.19	\$5.48	11.25%
	300	\$55.93	\$62.20	\$6.27	11.21%
	400	\$70.39	\$78.23	\$7.85	11.15%
	500	\$84.84	\$94.27	\$9.43	11.11%
	600	\$99.29	\$110.30	\$11.01	11.09%
	675	\$110.13	\$122.32	\$12.19	11.07%
	750	\$120.97	\$134.34	\$13.38	11.06%
	1000	\$157.09	\$174.42	\$17.32	11.03%
	1500	\$229.35	\$254.57	\$25.22	11.00%
	2000	\$301.61	\$334.72	\$33.11	10.98%
	3000	\$446.12	\$495.03	\$48.91	10.96%
	4000	\$590.64	\$655.34	\$64.70	10.95%
5000	\$735.15	\$815.64	\$80.49	10.95%	
AVERAGE MONTHLY	250	\$41.35	\$46.15	\$4.80	11.62%
	300	\$47.10	\$52.56	\$5.46	11.59%
	400	\$58.61	\$65.38	\$6.77	11.55%
	500	\$70.12	\$78.19	\$8.08	11.52%
	600	\$81.62	\$91.01	\$9.38	11.50%
	675	\$90.26	\$100.62	\$10.37	11.48%
	750	\$98.89	\$110.23	\$11.35	11.48%
	1000	\$127.65	\$142.27	\$14.62	11.45%
	1500	\$185.19	\$206.35	\$21.16	11.43%
	2000	\$242.73	\$270.43	\$27.71	11.41%
	3000	\$357.80	\$398.59	\$40.79	11.40%
	4000	\$472.88	\$526.76	\$53.88	11.39%
5000	\$587.95	\$654.92	\$66.97	11.39%	

Comparison Of Bills At Present & Proposed Rates

SMALL GENERAL SERVICE

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$40.46	\$44.29	\$3.84	9.49%
	300	\$46.39	\$50.71	\$4.31	9.30%
	400	\$58.26	\$63.53	\$5.26	9.04%
	500	\$70.13	\$76.35	\$6.22	8.86%
	600	\$82.00	\$89.17	\$7.17	8.74%
	750	\$99.81	\$108.40	\$8.59	8.61%
	1000	\$129.49	\$140.45	\$10.97	8.47%
	1500	\$188.84	\$204.56	\$15.72	8.33%
	2000	\$248.19	\$268.67	\$20.48	8.25%
	3000	\$366.90	\$396.88	\$29.99	8.17%
	4000	\$485.60	\$525.09	\$39.49	8.13%
5000	\$604.31	\$653.31	\$49.00	8.11%	
SUMMER	250	\$45.45	\$49.80	\$4.35	9.57%
	300	\$52.38	\$57.31	\$4.93	9.40%
	400	\$66.25	\$72.33	\$6.08	9.18%
	500	\$80.12	\$87.35	\$7.24	9.03%
	600	\$93.98	\$102.37	\$8.39	8.93%
	750	\$114.78	\$124.91	\$10.12	8.82%
	1000	\$149.45	\$162.46	\$13.01	8.71%
	1500	\$218.79	\$237.57	\$18.79	8.59%
	2000	\$288.12	\$312.68	\$24.56	8.52%
	3000	\$426.80	\$462.91	\$36.11	8.46%
	4000	\$565.47	\$613.13	\$47.66	8.43%
5000	\$704.14	\$763.35	\$59.21	8.41%	
AVERAGE MONTHLY	250	\$42.12	\$46.13	\$4.01	9.52%
	300	\$48.39	\$52.91	\$4.52	9.34%
	400	\$60.92	\$66.46	\$5.54	9.09%
	500	\$73.46	\$80.02	\$6.56	8.92%
	600	\$86.00	\$93.57	\$7.57	8.81%
	750	\$104.80	\$113.90	\$9.10	8.69%
	1000	\$136.14	\$147.79	\$11.65	8.56%
	1500	\$198.82	\$215.57	\$16.74	8.42%
	2000	\$261.50	\$283.34	\$21.84	8.35%
	3000	\$386.86	\$418.89	\$32.03	8.28%
	4000	\$512.22	\$554.44	\$42.22	8.24%
5000	\$637.58	\$689.99	\$52.40	8.22%	

Comparison Of Bills At Present & Proposed Rates

GENERAL SERVICE (Secondary Voltage)

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$438.74	\$484.84	\$46.10	10.51%
15	6,000	400	\$655.16	\$725.72	\$70.56	10.77%
15	9,000	600	\$826.05	\$913.80	\$87.75	10.62%
25	5,000	200	\$712.58	\$789.63	\$77.05	10.81%
25	10,000	400	\$1,073.28	\$1,191.10	\$117.81	10.98%
25	15,000	600	\$1,358.09	\$1,504.57	\$146.48	10.79%
50	10,000	200	\$1,397.17	\$1,551.60	\$154.43	11.05%
50	20,000	400	\$2,118.59	\$2,354.54	\$235.95	11.14%
50	30,000	600	\$2,688.21	\$2,981.48	\$293.28	10.91%
75	15,000	200	\$2,081.77	\$2,313.57	\$231.80	11.13%
75	30,000	400	\$3,163.89	\$3,517.98	\$354.09	11.19%
75	45,000	600	\$4,018.32	\$4,458.40	\$440.08	10.95%
100	20,000	200	\$2,766.36	\$3,075.54	\$309.18	11.18%
100	40,000	400	\$4,209.20	\$4,681.42	\$472.23	11.22%
100	60,000	600	\$5,348.43	\$5,935.31	\$586.88	10.97%
200	40,000	200	\$5,504.74	\$6,123.42	\$618.68	11.24%
200	80,000	400	\$8,390.41	\$9,335.19	\$944.78	11.26%
200	120,000	600	\$10,668.88	\$11,842.96	\$1,174.08	11.00%
300	60,000	200	\$8,243.12	\$9,171.31	\$928.18	11.26%
300	120,000	400	\$12,571.63	\$13,988.96	\$1,417.33	11.27%
300	180,000	600	\$15,989.33	\$17,750.62	\$1,761.28	11.02%
400	80,000	200	\$10,981.51	\$12,219.19	\$1,237.69	11.27%
400	160,000	400	\$16,752.85	\$18,642.73	\$1,889.89	11.28%
400	240,000	600	\$21,309.79	\$23,658.27	\$2,348.49	11.02%
500	100,000	200	\$13,719.89	\$15,267.08	\$1,547.19	11.28%
500	200,000	400	\$20,934.06	\$23,296.50	\$2,362.44	11.29%
500	300,000	600	\$26,630.24	\$29,565.93	\$2,935.69	11.02%
750	150,000	200	\$20,565.84	\$22,886.79	\$2,320.95	11.29%
750	300,000	400	\$31,387.10	\$34,930.93	\$3,543.82	11.29%
750	450,000	600	\$39,931.37	\$44,335.06	\$4,403.69	11.03%
1,000	200,000	200	\$27,411.80	\$30,506.50	\$3,094.71	11.29%
1,000	400,000	400	\$41,840.15	\$46,565.35	\$4,725.20	11.29%
1,000	600,000	600	\$53,232.50	\$59,104.20	\$5,871.70	11.03%

Comparison Of Bills At Present & Proposed Rates

GENERAL SERVICE (Primary Voltage)

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$423.59	\$470.41	\$46.82	11.05%
15	6,000	400	\$636.86	\$707.36	\$70.50	11.07%
15	9,000	600	\$804.60	\$891.51	\$86.91	10.80%
25	5,000	200	\$687.33	\$765.58	\$78.25	11.38%
25	10,000	400	\$1,042.78	\$1,160.50	\$117.71	11.29%
25	15,000	600	\$1,322.34	\$1,467.42	\$145.08	10.97%
50	10,000	200	\$1,346.67	\$1,503.50	\$156.83	11.65%
50	20,000	400	\$2,057.59	\$2,293.34	\$235.75	11.46%
50	30,000	600	\$2,616.71	\$2,907.18	\$290.48	11.10%
75	15,000	200	\$2,006.02	\$2,241.42	\$235.40	11.73%
75	30,000	400	\$3,072.39	\$3,426.18	\$353.79	11.52%
75	45,000	600	\$3,911.07	\$4,346.95	\$435.88	11.14%
100	20,000	200	\$2,665.36	\$2,979.34	\$313.98	11.78%
100	40,000	400	\$4,087.20	\$4,559.02	\$471.83	11.54%
100	60,000	600	\$5,205.43	\$5,786.71	\$581.28	11.17%
200	40,000	200	\$5,302.74	\$5,931.02	\$628.28	11.85%
200	80,000	400	\$8,146.41	\$9,090.39	\$943.98	11.59%
200	120,000	600	\$10,382.88	\$11,545.76	\$1,162.88	11.20%
300	60,000	200	\$7,940.12	\$8,882.71	\$942.58	11.87%
300	120,000	400	\$12,205.63	\$13,621.76	\$1,416.13	11.60%
300	180,000	600	\$15,560.33	\$17,304.82	\$1,744.48	11.21%
400	80,000	200	\$10,577.51	\$11,834.39	\$1,256.89	11.88%
400	160,000	400	\$16,264.85	\$18,153.13	\$1,888.29	11.61%
400	240,000	600	\$20,737.79	\$23,063.87	\$2,326.09	11.22%
500	100,000	200	\$13,214.89	\$14,786.08	\$1,571.19	11.89%
500	200,000	400	\$20,324.06	\$22,684.50	\$2,360.44	11.61%
500	300,000	600	\$25,915.24	\$28,822.93	\$2,907.69	11.22%
750	150,000	200	\$19,808.34	\$22,165.29	\$2,356.95	11.90%
750	300,000	400	\$30,472.10	\$34,012.93	\$3,540.82	11.62%
750	450,000	600	\$38,858.87	\$43,220.56	\$4,361.69	11.22%
1,000	200,000	200	\$26,401.80	\$29,544.50	\$3,142.71	11.90%
1,000	400,000	400	\$40,620.15	\$45,341.35	\$4,721.20	11.62%
1,000	600,000	600	\$51,802.50	\$57,618.20	\$5,815.70	11.23%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Secondary Voltage)

40% On-Peak
 60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$440.08	\$485.08	\$45.00	10.23%
15	6,000	400	\$653.84	\$722.20	\$68.37	10.46%
15	9,000	600	\$822.06	\$906.53	\$84.47	10.28%
25	5,000	200	\$712.14	\$787.36	\$75.22	10.56%
25	10,000	400	\$1,068.41	\$1,182.57	\$114.16	10.69%
25	15,000	600	\$1,348.78	\$1,489.78	\$141.00	10.45%
50	10,000	200	\$1,392.30	\$1,543.07	\$150.77	10.83%
50	20,000	400	\$2,104.84	\$2,333.49	\$228.65	10.86%
50	30,000	600	\$2,665.58	\$2,947.91	\$282.32	10.59%
75	15,000	200	\$2,072.46	\$2,298.78	\$226.33	10.92%
75	30,000	400	\$3,141.27	\$3,484.41	\$343.14	10.92%
75	45,000	600	\$3,982.39	\$4,406.03	\$423.65	10.64%
100	20,000	200	\$2,752.61	\$3,054.49	\$301.88	10.97%
100	40,000	400	\$4,177.70	\$4,635.32	\$457.62	10.95%
100	60,000	600	\$5,299.19	\$5,864.16	\$564.97	10.66%
200	40,000	200	\$5,473.25	\$6,077.32	\$604.08	11.04%
200	80,000	400	\$8,323.42	\$9,238.99	\$915.57	11.00%
200	120,000	600	\$10,566.39	\$11,696.66	\$1,130.27	10.70%
300	60,000	200	\$8,193.88	\$9,100.16	\$906.28	11.06%
300	120,000	400	\$12,469.14	\$13,842.66	\$1,373.52	11.02%
300	180,000	600	\$15,833.60	\$17,529.16	\$1,695.56	10.71%
500	100,000	200	\$13,635.15	\$15,145.83	\$1,510.68	11.08%
500	200,000	400	\$20,760.58	\$23,050.00	\$2,289.42	11.03%
500	300,000	600	\$26,368.01	\$29,194.17	\$2,826.16	10.72%
1,000	200,000	200	\$27,238.31	\$30,260.00	\$3,021.68	11.09%
1,000	400,000	400	\$41,489.18	\$46,068.34	\$4,579.16	11.04%
1,000	600,000	600	\$52,704.05	\$58,356.69	\$5,652.64	10.73%
3,000	600,000	200	\$81,650.98	\$90,716.69	\$9,065.70	11.10%
3,000	1,200,000	400	\$124,403.59	\$138,141.72	\$13,738.13	11.04%
3,000	1,800,000	600	\$158,048.19	\$175,006.75	\$16,958.56	10.73%
5,000	1,000,000	200	\$136,063.65	\$151,173.37	\$15,109.72	11.10%
5,000	2,000,000	400	\$207,317.99	\$230,215.09	\$22,897.10	11.04%
5,000	3,000,000	600	\$263,392.33	\$291,656.81	\$28,264.48	10.73%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Primary Voltage)

40% On-Peak
 60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$424.93	\$470.65	\$45.72	10.76%
15	6,000	400	\$635.54	\$703.84	\$68.31	10.75%
15	9,000	600	\$800.61	\$884.24	\$83.63	10.45%
25	5,000	200	\$686.89	\$763.31	\$76.42	11.13%
25	10,000	400	\$1,037.91	\$1,151.97	\$114.06	10.99%
25	15,000	600	\$1,313.03	\$1,452.63	\$139.60	10.63%
50	10,000	200	\$1,341.80	\$1,494.97	\$153.17	11.42%
50	20,000	400	\$2,043.84	\$2,272.29	\$228.45	11.18%
50	30,000	600	\$2,594.08	\$2,873.61	\$279.52	10.78%
75	15,000	200	\$1,996.71	\$2,226.63	\$229.93	11.52%
75	30,000	400	\$3,049.77	\$3,392.61	\$342.84	11.24%
75	45,000	600	\$3,875.14	\$4,294.58	\$419.45	10.82%
100	20,000	200	\$2,651.61	\$2,958.29	\$306.68	11.57%
100	40,000	400	\$4,055.70	\$4,512.92	\$457.22	11.27%
100	60,000	600	\$5,156.19	\$5,715.56	\$559.37	10.85%
200	40,000	200	\$5,271.25	\$5,884.92	\$613.68	11.64%
200	80,000	400	\$8,079.42	\$8,994.19	\$914.77	11.32%
200	120,000	600	\$10,280.39	\$11,399.46	\$1,119.07	10.89%
300	60,000	200	\$7,890.88	\$8,811.56	\$920.68	11.67%
300	120,000	400	\$12,103.14	\$13,475.46	\$1,372.32	11.34%
300	180,000	600	\$15,404.60	\$17,083.36	\$1,678.76	10.90%
500	100,000	200	\$13,130.15	\$14,664.83	\$1,534.68	11.69%
500	200,000	400	\$20,150.58	\$22,438.00	\$2,287.42	11.35%
500	300,000	600	\$25,653.01	\$28,451.17	\$2,798.16	10.91%
1,000	200,000	200	\$26,228.31	\$29,298.00	\$3,069.68	11.70%
1,000	400,000	400	\$40,269.18	\$44,844.34	\$4,575.16	11.36%
1,000	600,000	600	\$51,274.05	\$56,870.69	\$5,596.64	10.92%
3,000	600,000	200	\$78,620.98	\$87,830.69	\$9,209.70	11.71%
3,000	1,200,000	400	\$120,743.59	\$134,469.72	\$13,726.13	11.37%
3,000	1,800,000	600	\$153,758.19	\$170,548.75	\$16,790.56	10.92%
5,000	1,000,000	200	\$131,013.65	\$146,363.37	\$15,349.72	11.72%
5,000	2,000,000	400	\$201,217.99	\$224,095.09	\$22,877.10	11.37%
5,000	3,000,000	600	\$256,242.33	\$284,226.81	\$27,984.48	10.92%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Transmission Transformed Voltage)

40% On-Peak

60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$408.82	\$447.97	\$39.15	9.58%
15	6,000	400	\$614.57	\$675.73	\$61.17	9.95%
15	9,000	600	\$774.78	\$850.70	\$75.92	9.80%
25	5,000	200	\$660.04	\$725.51	\$65.47	9.92%
25	10,000	400	\$1,002.96	\$1,105.12	\$102.16	10.19%
25	15,000	600	\$1,269.98	\$1,396.73	\$126.75	9.98%
50	10,000	200	\$1,288.10	\$1,419.37	\$131.27	10.19%
50	20,000	400	\$1,973.94	\$2,178.59	\$204.65	10.37%
50	30,000	600	\$2,507.98	\$2,761.81	\$253.82	10.12%
75	15,000	200	\$1,916.16	\$2,113.23	\$197.08	10.28%
75	30,000	400	\$2,944.92	\$3,252.06	\$307.14	10.43%
75	45,000	600	\$3,745.99	\$4,126.88	\$380.90	10.17%
100	20,000	200	\$2,544.21	\$2,807.09	\$262.88	10.33%
100	40,000	400	\$3,915.90	\$4,325.52	\$409.62	10.46%
100	60,000	600	\$4,983.99	\$5,491.96	\$507.97	10.19%
200	40,000	200	\$5,056.45	\$5,582.52	\$526.08	10.40%
200	80,000	400	\$7,799.82	\$8,619.39	\$819.57	10.51%
200	120,000	600	\$9,935.99	\$10,952.26	\$1,016.27	10.23%
300	60,000	200	\$7,568.68	\$8,357.96	\$789.28	10.43%
300	120,000	400	\$11,683.74	\$12,913.26	\$1,229.52	10.52%
300	180,000	600	\$14,888.00	\$16,412.56	\$1,524.56	10.24%
500	100,000	200	\$12,593.15	\$13,908.83	\$1,315.68	10.45%
500	200,000	400	\$19,451.58	\$21,501.00	\$2,049.42	10.54%
500	300,000	600	\$24,792.01	\$27,333.17	\$2,541.16	10.25%
1,000	200,000	200	\$25,154.31	\$27,786.00	\$2,631.68	10.46%
1,000	400,000	400	\$38,871.18	\$42,970.34	\$4,099.16	10.55%
1,000	600,000	600	\$49,552.05	\$54,634.69	\$5,082.64	10.26%
3,000	600,000	200	\$75,398.98	\$83,294.69	\$7,895.70	10.47%
3,000	1,200,000	400	\$116,549.59	\$128,847.72	\$12,298.13	10.55%
3,000	1,800,000	600	\$148,592.19	\$163,840.75	\$15,248.56	10.26%
5,000	1,000,000	200	\$125,643.65	\$138,803.37	\$13,159.72	10.47%
5,000	2,000,000	400	\$194,227.99	\$214,725.09	\$20,497.10	10.55%
5,000	3,000,000	600	\$247,632.33	\$273,046.81	\$25,414.48	10.26%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Transmission Voltage)

40% On-Peak

60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$396.52	\$434.92	\$38.40	9.69%
15	6,000	400	\$601.97	\$662.38	\$60.42	10.04%
15	9,000	600	\$761.88	\$837.05	\$75.17	9.87%
25	5,000	200	\$639.54	\$703.76	\$64.22	10.04%
25	10,000	400	\$981.96	\$1,082.87	\$100.91	10.28%
25	15,000	600	\$1,248.48	\$1,373.98	\$125.50	10.05%
50	10,000	200	\$1,247.10	\$1,375.87	\$128.77	10.33%
50	20,000	400	\$1,931.94	\$2,134.09	\$202.15	10.46%
50	30,000	600	\$2,464.98	\$2,716.31	\$251.32	10.20%
75	15,000	200	\$1,854.66	\$2,047.98	\$193.33	10.42%
75	30,000	400	\$2,881.92	\$3,185.31	\$303.39	10.53%
75	45,000	600	\$3,681.49	\$4,058.63	\$377.15	10.24%
100	20,000	200	\$2,462.21	\$2,720.09	\$257.88	10.47%
100	40,000	400	\$3,831.90	\$4,236.52	\$404.62	10.56%
100	60,000	600	\$4,897.99	\$5,400.96	\$502.97	10.27%
200	40,000	200	\$4,892.45	\$5,408.52	\$516.08	10.55%
200	80,000	400	\$7,631.82	\$8,441.39	\$809.57	10.61%
200	120,000	600	\$9,763.99	\$10,770.26	\$1,006.27	10.31%
300	60,000	200	\$7,322.68	\$8,096.96	\$774.28	10.57%
300	120,000	400	\$11,431.74	\$12,646.26	\$1,214.52	10.62%
300	180,000	600	\$14,630.00	\$16,139.56	\$1,509.56	10.32%
500	100,000	200	\$12,183.15	\$13,473.83	\$1,290.68	10.59%
500	200,000	400	\$19,031.58	\$21,056.00	\$2,024.42	10.64%
500	300,000	600	\$24,362.01	\$26,878.17	\$2,516.16	10.33%
1,000	200,000	200	\$24,334.31	\$26,916.00	\$2,581.68	10.61%
1,000	400,000	400	\$38,031.18	\$42,080.34	\$4,049.16	10.65%
1,000	600,000	600	\$48,692.05	\$53,724.69	\$5,032.64	10.34%
3,000	600,000	200	\$72,938.98	\$80,684.69	\$7,745.70	10.62%
3,000	1,200,000	400	\$114,029.59	\$126,177.72	\$12,148.13	10.65%
3,000	1,800,000	600	\$146,012.19	\$161,110.75	\$15,098.56	10.34%
5,000	1,000,000	200	\$121,543.65	\$134,453.37	\$12,909.72	10.62%
5,000	2,000,000	400	\$190,027.99	\$210,275.09	\$20,247.10	10.65%
5,000	3,000,000	600	\$243,332.33	\$268,496.81	\$25,164.48	10.34%

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE (Overhead) - A01

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$40.60	\$47.92	\$7.31	18.01%
	300	\$47.01	\$55.48	\$8.47	18.02%
	400	\$59.81	\$70.60	\$10.78	18.03%
	500	\$72.62	\$85.72	\$13.10	18.03%
	600	\$85.43	\$100.84	\$15.41	18.04%
	675	\$95.04	\$112.18	\$17.14	18.04%
	750	\$104.64	\$123.52	\$18.88	18.04%
	1000	\$136.66	\$161.32	\$24.66	18.04%
	1500	\$200.71	\$236.93	\$36.22	18.05%
	2000	\$264.75	\$312.54	\$47.79	18.05%
	3000	\$392.83	\$463.75	\$70.91	18.05%
	4000	\$520.92	\$614.96	\$94.04	18.05%
5000	\$649.00	\$766.17	\$117.17	18.05%	
SUMMER	250	\$45.58	\$53.57	\$7.99	17.53%
	300	\$52.97	\$62.26	\$9.28	17.52%
	400	\$67.77	\$79.64	\$11.87	17.51%
	500	\$82.57	\$97.02	\$14.45	17.50%
	600	\$97.37	\$114.40	\$17.03	17.49%
	675	\$108.47	\$127.44	\$18.97	17.49%
	750	\$119.57	\$140.47	\$20.91	17.49%
	1000	\$156.56	\$183.93	\$27.37	17.48%
	1500	\$230.55	\$270.83	\$40.28	17.47%
	2000	\$304.54	\$357.74	\$53.20	17.47%
	3000	\$452.52	\$531.56	\$79.04	17.47%
	4000	\$600.50	\$705.37	\$104.87	17.46%
5000	\$748.48	\$879.19	\$130.70	17.46%	
AVERAGE MONTHLY	250	\$42.26	\$49.80	\$7.54	17.84%
	300	\$49.00	\$57.74	\$8.74	17.84%
	400	\$62.47	\$73.61	\$11.14	17.84%
	500	\$75.94	\$89.49	\$13.55	17.84%
	600	\$89.41	\$105.36	\$15.95	17.84%
	675	\$99.51	\$117.27	\$17.75	17.84%
	750	\$109.62	\$129.17	\$19.55	17.84%
	1000	\$143.30	\$168.86	\$25.56	17.84%
	1500	\$210.66	\$248.23	\$37.58	17.84%
	2000	\$278.01	\$327.61	\$49.59	17.84%
	3000	\$412.73	\$486.35	\$73.62	17.84%
	4000	\$547.45	\$645.10	\$97.65	17.84%
5000	\$682.16	\$803.84	\$121.68	17.84%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE - SPACE HEATING (Overhead) - A01

Energy in kWh	Monthly Bill		Increase		
	Present	Proposed	Amount	Percent	
WINTER	250	\$35.56	\$42.04	\$6.48	18.22%
	300	\$40.56	\$48.03	\$7.47	18.41%
	400	\$50.55	\$60.00	\$9.45	18.69%
	500	\$60.55	\$71.97	\$11.43	18.87%
	600	\$70.54	\$83.95	\$13.40	19.00%
	675	\$78.04	\$92.92	\$14.89	19.08%
	750	\$85.53	\$101.90	\$16.37	19.14%
	1000	\$110.51	\$131.83	\$21.32	19.29%
	1500	\$160.48	\$191.70	\$31.21	19.45%
	2000	\$210.45	\$251.56	\$41.11	19.53%
	3000	\$310.38	\$371.28	\$60.89	19.62%
	4000	\$410.32	\$491.00	\$80.68	19.66%
5000	\$510.25	\$610.72	\$100.47	19.69%	
SUMMER	250	\$47.58	\$55.57	\$7.99	16.80%
	300	\$54.97	\$64.26	\$9.28	16.89%
	400	\$69.77	\$81.64	\$11.87	17.01%
	500	\$84.57	\$99.02	\$14.45	17.09%
	600	\$99.37	\$116.40	\$17.03	17.14%
	675	\$110.47	\$129.44	\$18.97	17.17%
	750	\$121.57	\$142.47	\$20.91	17.20%
	1000	\$158.56	\$185.93	\$27.37	17.26%
	1500	\$232.55	\$272.83	\$40.28	17.32%
	2000	\$306.54	\$359.74	\$53.20	17.36%
	3000	\$454.52	\$533.56	\$79.04	17.39%
	4000	\$602.50	\$707.37	\$104.87	17.41%
5000	\$750.48	\$881.19	\$130.70	17.42%	
AVERAGE MONTHLY	250	\$39.57	\$46.55	\$6.98	17.65%
	300	\$45.37	\$53.44	\$8.07	17.80%
	400	\$56.96	\$67.21	\$10.25	18.00%
	500	\$68.56	\$80.99	\$12.43	18.14%
	600	\$80.15	\$94.76	\$14.61	18.23%
	675	\$88.85	\$105.10	\$16.25	18.29%
	750	\$97.54	\$115.43	\$17.88	18.33%
	1000	\$126.53	\$149.87	\$23.34	18.44%
	1500	\$184.51	\$218.74	\$34.24	18.56%
	2000	\$242.48	\$287.62	\$45.14	18.62%
	3000	\$358.43	\$425.37	\$66.94	18.68%
	4000	\$474.38	\$563.12	\$88.74	18.71%
5000	\$590.33	\$700.88	\$110.55	18.73%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE (Underground) - A03

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$42.60	\$49.92	\$7.31	17.17%
	300	\$49.01	\$57.48	\$8.47	17.28%
	400	\$61.81	\$72.60	\$10.78	17.44%
	500	\$74.62	\$87.72	\$13.10	17.55%
	600	\$87.43	\$102.84	\$15.41	17.62%
	675	\$97.04	\$114.18	\$17.14	17.67%
	750	\$106.64	\$125.52	\$18.88	17.70%
	1000	\$138.66	\$163.32	\$24.66	17.78%
	1500	\$202.71	\$238.93	\$36.22	17.87%
	2000	\$266.75	\$314.54	\$47.79	17.91%
	3000	\$394.83	\$465.75	\$70.91	17.96%
	4000	\$522.92	\$616.96	\$94.04	17.98%
5000	\$651.00	\$768.17	\$117.17	18.00%	
SUMMER	250	\$47.58	\$55.57	\$7.99	16.80%
	300	\$54.97	\$64.26	\$9.28	16.89%
	400	\$69.77	\$81.64	\$11.87	17.01%
	500	\$84.57	\$99.02	\$14.45	17.09%
	600	\$99.37	\$116.40	\$17.03	17.14%
	675	\$110.47	\$129.44	\$18.97	17.17%
	750	\$121.57	\$142.47	\$20.91	17.20%
	1000	\$158.56	\$185.93	\$27.37	17.26%
	1500	\$232.55	\$272.83	\$40.28	17.32%
	2000	\$306.54	\$359.74	\$53.20	17.36%
	3000	\$454.52	\$533.56	\$79.04	17.39%
	4000	\$602.50	\$707.37	\$104.87	17.41%
5000	\$750.48	\$881.19	\$130.70	17.42%	
AVERAGE MONTHLY	250	\$44.26	\$51.80	\$7.54	17.04%
	300	\$51.00	\$59.74	\$8.74	17.14%
	400	\$64.47	\$75.61	\$11.14	17.29%
	500	\$77.94	\$91.49	\$13.55	17.38%
	600	\$91.41	\$107.36	\$15.95	17.45%
	675	\$101.51	\$119.27	\$17.75	17.49%
	750	\$111.62	\$131.17	\$19.55	17.52%
	1000	\$145.30	\$170.86	\$25.56	17.59%
	1500	\$212.66	\$250.23	\$37.58	17.67%
	2000	\$280.01	\$329.61	\$49.59	17.71%
	3000	\$414.73	\$488.35	\$73.62	17.75%
	4000	\$549.45	\$647.10	\$97.65	17.77%
5000	\$684.16	\$805.84	\$121.68	17.79%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE - SPACE HEATING (Underground) - A03

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$37.56	\$44.04	\$6.48	17.25%
	300	\$42.56	\$50.03	\$7.47	17.55%
	400	\$52.55	\$62.00	\$9.45	17.98%
	500	\$62.55	\$73.97	\$11.43	18.27%
	600	\$72.54	\$85.95	\$13.40	18.48%
	675	\$80.04	\$94.92	\$14.89	18.60%
	750	\$87.53	\$103.90	\$16.37	18.70%
	1000	\$112.51	\$133.83	\$21.32	18.95%
	1500	\$162.48	\$193.70	\$31.21	19.21%
	2000	\$212.45	\$253.56	\$41.11	19.35%
	3000	\$312.38	\$373.28	\$60.89	19.49%
	4000	\$412.32	\$493.00	\$80.68	19.57%
5000	\$512.25	\$612.72	\$100.47	19.61%	
SUMMER	250	\$49.58	\$57.57	\$7.99	16.12%
	300	\$56.97	\$66.26	\$9.28	16.29%
	400	\$71.77	\$83.64	\$11.87	16.53%
	500	\$86.57	\$101.02	\$14.45	16.69%
	600	\$101.37	\$118.40	\$17.03	16.80%
	675	\$112.47	\$131.44	\$18.97	16.87%
	750	\$123.57	\$144.47	\$20.91	16.92%
	1000	\$160.56	\$187.93	\$27.37	17.04%
	1500	\$234.55	\$274.83	\$40.28	17.17%
	2000	\$308.54	\$361.74	\$53.20	17.24%
	3000	\$456.52	\$535.56	\$79.04	17.31%
	4000	\$604.50	\$709.37	\$104.87	17.35%
5000	\$752.48	\$883.19	\$130.70	17.37%	
AVERAGE MONTHLY	250	\$41.57	\$48.55	\$6.98	16.80%
	300	\$47.37	\$55.44	\$8.07	17.04%
	400	\$58.96	\$69.21	\$10.25	17.39%
	500	\$70.56	\$82.99	\$12.43	17.62%
	600	\$82.15	\$96.76	\$14.61	17.79%
	675	\$90.85	\$107.10	\$16.25	17.89%
	750	\$99.54	\$117.43	\$17.88	17.97%
	1000	\$128.53	\$151.87	\$23.34	18.16%
	1500	\$186.51	\$220.74	\$34.24	18.36%
	2000	\$244.48	\$289.62	\$45.14	18.46%
	3000	\$360.43	\$427.37	\$66.94	18.57%
	4000	\$476.38	\$565.12	\$88.74	18.63%
5000	\$592.33	\$702.88	\$110.55	18.66%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL TIME OF DAY SERVICE (Overhead) - A02

35% On-Peak
 65% Off-Peak

Energy in kWh	Monthly Bill		Increase		
	Present	Proposed	Amount	Percent	
WINTER	250	\$41.81	\$48.62	\$6.80	16.27%
	300	\$48.06	\$55.92	\$7.86	16.35%
	400	\$60.56	\$70.52	\$9.96	16.45%
	500	\$73.05	\$85.12	\$12.07	16.53%
	600	\$85.54	\$99.72	\$14.18	16.58%
	675	\$94.91	\$110.67	\$15.76	16.61%
	750	\$104.28	\$121.63	\$17.34	16.63%
	1000	\$135.52	\$158.13	\$22.61	16.69%
	1500	\$197.99	\$231.14	\$33.15	16.74%
	2000	\$260.46	\$304.15	\$43.69	16.78%
	3000	\$385.39	\$450.17	\$64.77	16.81%
	4000	\$510.33	\$596.18	\$85.85	16.82%
5000	\$635.27	\$742.20	\$106.93	16.83%	
SUMMER	250	\$46.53	\$53.90	\$7.37	15.84%
	300	\$53.72	\$62.26	\$8.54	15.89%
	400	\$68.11	\$78.98	\$10.87	15.96%
	500	\$82.49	\$95.70	\$13.21	16.01%
	600	\$96.87	\$112.41	\$15.54	16.05%
	675	\$107.66	\$124.95	\$17.29	16.06%
	750	\$118.44	\$137.49	\$19.05	16.08%
	1000	\$154.39	\$179.28	\$24.88	16.12%
	1500	\$226.30	\$262.86	\$36.56	16.16%
	2000	\$298.21	\$346.45	\$48.24	16.18%
	3000	\$442.02	\$513.61	\$71.59	16.20%
	4000	\$585.84	\$680.78	\$94.94	16.21%
5000	\$729.65	\$847.95	\$118.29	16.21%	
AVERAGE MONTHLY	250	\$43.39	\$50.38	\$6.99	16.11%
	300	\$49.95	\$58.03	\$8.08	16.18%
	400	\$63.07	\$73.34	\$10.27	16.28%
	500	\$76.20	\$88.65	\$12.45	16.34%
	600	\$89.32	\$103.95	\$14.63	16.38%
	675	\$99.16	\$115.43	\$16.27	16.41%
	750	\$109.00	\$126.91	\$17.91	16.43%
	1000	\$141.81	\$165.18	\$23.37	16.48%
	1500	\$207.43	\$241.71	\$34.29	16.53%
	2000	\$273.04	\$318.25	\$45.21	16.56%
	3000	\$404.27	\$471.32	\$67.04	16.58%
	4000	\$535.50	\$624.38	\$88.88	16.60%
5000	\$666.73	\$777.45	\$110.72	16.61%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL TIME OF DAY SERVICE - SPACE HEATING (Overhead) - A02

35% On-Peak
 65% Off-Peak

Energy in kWh	Monthly Bill		Increase		
	Present	Proposed	Amount	Percent	
WINTER	250	\$37.49	\$43.78	\$6.28	16.76%
	300	\$42.48	\$49.71	\$7.23	17.03%
	400	\$52.44	\$61.58	\$9.14	17.42%
	500	\$62.41	\$73.44	\$11.04	17.68%
	600	\$72.37	\$85.31	\$12.94	17.88%
	675	\$79.85	\$94.21	\$14.36	17.99%
	750	\$87.32	\$103.11	\$15.79	18.08%
	1000	\$112.23	\$132.77	\$20.54	18.30%
	1500	\$162.06	\$192.11	\$30.04	18.54%
	2000	\$211.89	\$251.44	\$39.55	18.66%
	3000	\$311.54	\$370.10	\$58.56	18.80%
	4000	\$411.20	\$488.76	\$77.57	18.86%
5000	\$510.85	\$607.42	\$96.57	18.90%	
SUMMER	250	\$48.53	\$55.90	\$7.37	15.19%
	300	\$55.72	\$64.26	\$8.54	15.32%
	400	\$70.11	\$80.98	\$10.87	15.51%
	500	\$84.49	\$97.70	\$13.21	15.63%
	600	\$98.87	\$114.41	\$15.54	15.72%
	675	\$109.66	\$126.95	\$17.29	15.77%
	750	\$120.44	\$139.49	\$19.05	15.81%
	1000	\$156.39	\$181.28	\$24.88	15.91%
	1500	\$228.30	\$264.86	\$36.56	16.01%
	2000	\$300.21	\$348.45	\$48.24	16.07%
	3000	\$444.02	\$515.61	\$71.59	16.12%
	4000	\$587.84	\$682.78	\$94.94	16.15%
5000	\$731.65	\$849.95	\$118.29	16.17%	
AVERAGE MONTHLY	250	\$41.17	\$47.82	\$6.65	16.14%
	300	\$46.89	\$54.56	\$7.67	16.35%
	400	\$58.33	\$68.04	\$9.71	16.65%
	500	\$69.77	\$81.53	\$11.76	16.86%
	600	\$81.20	\$95.01	\$13.81	17.00%
	675	\$89.78	\$105.12	\$15.34	17.09%
	750	\$98.36	\$115.24	\$16.87	17.16%
	1000	\$126.95	\$148.94	\$21.99	17.32%
	1500	\$184.14	\$216.36	\$32.22	17.50%
	2000	\$241.33	\$283.77	\$42.44	17.59%
	3000	\$355.70	\$418.60	\$62.90	17.68%
	4000	\$470.08	\$553.43	\$83.36	17.73%
5000	\$584.45	\$688.26	\$103.81	17.76%	

Comparison Of Bills At Present & Proposed Rates

SMALL GENERAL SERVICE

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$40.28	\$45.62	\$5.34	13.25%
	300	\$46.18	\$52.29	\$6.11	13.23%
	400	\$57.98	\$65.64	\$7.66	13.21%
	500	\$69.78	\$78.99	\$9.21	13.20%
	600	\$81.58	\$92.34	\$10.76	13.19%
	750	\$99.28	\$112.37	\$13.09	13.18%
	1000	\$128.79	\$145.75	\$16.96	13.17%
	1500	\$187.79	\$212.50	\$24.71	13.16%
	2000	\$246.79	\$279.25	\$32.46	13.15%
	3000	\$364.80	\$412.76	\$47.96	13.15%
	4000	\$482.80	\$546.26	\$63.46	13.14%
5000	\$600.81	\$679.77	\$78.96	13.14%	
SUMMER	250	\$45.27	\$51.27	\$5.99	13.24%
	300	\$52.17	\$59.07	\$6.90	13.23%
	400	\$65.97	\$74.68	\$8.71	13.21%
	500	\$79.77	\$90.29	\$10.53	13.20%
	600	\$93.56	\$105.90	\$12.34	13.19%
	750	\$114.26	\$129.32	\$15.06	13.18%
	1000	\$148.75	\$168.34	\$19.59	13.17%
	1500	\$217.74	\$246.40	\$28.66	13.16%
	2000	\$286.73	\$324.45	\$37.72	13.16%
	3000	\$424.70	\$480.55	\$55.85	13.15%
	4000	\$562.67	\$636.66	\$73.99	13.15%
5000	\$700.64	\$792.76	\$92.12	13.15%	
AVERAGE MONTHLY	250	\$41.95	\$47.50	\$5.56	13.24%
	300	\$48.18	\$54.55	\$6.37	13.23%
	400	\$60.64	\$68.66	\$8.01	13.21%
	500	\$73.11	\$82.76	\$9.65	13.20%
	600	\$85.58	\$96.86	\$11.29	13.19%
	750	\$104.28	\$118.02	\$13.74	13.18%
	1000	\$135.44	\$153.28	\$17.84	13.17%
	1500	\$197.77	\$223.80	\$26.03	13.16%
	2000	\$260.10	\$294.32	\$34.22	13.15%
	3000	\$384.76	\$435.36	\$50.59	13.15%
	4000	\$509.42	\$576.39	\$66.97	13.15%
5000	\$634.09	\$717.43	\$83.35	13.14%	

Comparison Of Bills At Present & Proposed Rates

GENERAL SERVICE (Secondary Voltage)

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$436.57	\$501.09	\$64.52	14.78%
15	6,000	400	\$651.08	\$749.03	\$97.95	15.04%
15	9,000	600	\$820.06	\$942.25	\$122.19	14.90%
25	5,000	200	\$708.96	\$816.72	\$107.76	15.20%
25	10,000	400	\$1,066.48	\$1,229.95	\$163.47	15.33%
25	15,000	600	\$1,348.11	\$1,551.98	\$203.87	15.12%
50	10,000	200	\$1,389.94	\$1,605.78	\$215.84	15.53%
50	20,000	400	\$2,104.99	\$2,432.25	\$327.26	15.55%
50	30,000	600	\$2,668.23	\$3,076.31	\$408.07	15.29%
75	15,000	200	\$2,070.92	\$2,394.85	\$323.92	15.64%
75	30,000	400	\$3,143.49	\$3,634.54	\$491.05	15.62%
75	45,000	600	\$3,988.36	\$4,600.63	\$612.27	15.35%
100	20,000	200	\$2,751.90	\$3,183.91	\$432.01	15.70%
100	40,000	400	\$4,182.00	\$4,836.84	\$654.84	15.66%
100	60,000	600	\$5,308.49	\$6,124.96	\$816.47	15.38%
200	40,000	200	\$5,475.83	\$6,340.17	\$864.34	15.78%
200	80,000	400	\$8,336.01	\$9,646.02	\$1,310.01	15.72%
200	120,000	600	\$10,589.00	\$12,222.27	\$1,633.27	15.42%
300	60,000	200	\$8,199.75	\$9,496.43	\$1,296.68	15.81%
300	120,000	400	\$12,490.03	\$14,455.20	\$1,965.17	15.73%
300	180,000	600	\$15,869.51	\$18,319.58	\$2,450.07	15.44%
400	80,000	200	\$10,923.68	\$12,652.69	\$1,729.01	15.83%
400	160,000	400	\$16,644.05	\$19,264.39	\$2,620.34	15.74%
400	240,000	600	\$21,150.02	\$24,416.88	\$3,266.87	15.45%
500	100,000	200	\$13,647.60	\$15,808.94	\$2,161.34	15.84%
500	200,000	400	\$20,798.06	\$24,073.57	\$3,275.50	15.75%
500	300,000	600	\$26,430.53	\$30,514.19	\$4,083.66	15.45%
750	150,000	200	\$20,457.41	\$23,699.59	\$3,242.18	15.85%
750	300,000	400	\$31,183.11	\$36,096.53	\$4,913.42	15.76%
750	450,000	600	\$39,631.80	\$45,757.46	\$6,125.66	15.46%
1,000	200,000	200	\$27,267.22	\$31,590.24	\$4,323.02	15.85%
1,000	400,000	400	\$41,568.15	\$48,119.48	\$6,551.33	15.76%
1,000	600,000	600	\$52,833.08	\$61,000.73	\$8,167.65	15.46%

Comparison Of Bills At Present & Proposed Rates

GENERAL SERVICE (Primary Voltage)

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$421.42	\$486.51	\$65.09	15.45%
15	6,000	400	\$632.78	\$730.37	\$97.59	15.42%
15	9,000	600	\$798.61	\$919.51	\$120.90	15.14%
25	5,000	200	\$683.71	\$792.42	\$108.71	15.90%
25	10,000	400	\$1,035.98	\$1,198.85	\$162.87	15.72%
25	15,000	600	\$1,312.36	\$1,514.08	\$201.72	15.37%
50	10,000	200	\$1,339.44	\$1,557.18	\$217.74	16.26%
50	20,000	400	\$2,043.99	\$2,370.05	\$326.06	15.95%
50	30,000	600	\$2,596.73	\$3,000.51	\$403.77	15.55%
75	15,000	200	\$1,995.17	\$2,321.95	\$326.77	16.38%
75	30,000	400	\$3,051.99	\$3,541.24	\$489.25	16.03%
75	45,000	600	\$3,881.11	\$4,486.93	\$605.82	15.61%
100	20,000	200	\$2,650.90	\$3,086.71	\$435.81	16.44%
100	40,000	400	\$4,060.00	\$4,712.44	\$652.44	16.07%
100	60,000	600	\$5,165.49	\$5,973.36	\$807.87	15.64%
200	40,000	200	\$5,273.83	\$6,145.77	\$871.94	16.53%
200	80,000	400	\$8,092.01	\$9,397.22	\$1,305.21	16.13%
200	120,000	600	\$10,303.00	\$11,919.07	\$1,616.07	15.69%
300	60,000	200	\$7,896.75	\$9,204.83	\$1,308.08	16.56%
300	120,000	400	\$12,124.03	\$14,082.00	\$1,957.97	16.15%
300	180,000	600	\$15,440.51	\$17,864.78	\$2,424.27	15.70%
400	80,000	200	\$10,519.68	\$12,263.89	\$1,744.21	16.58%
400	160,000	400	\$16,156.05	\$18,766.79	\$2,610.74	16.16%
400	240,000	600	\$20,578.02	\$23,810.48	\$3,232.47	15.71%
500	100,000	200	\$13,142.60	\$15,322.94	\$2,180.34	16.59%
500	200,000	400	\$20,188.06	\$23,451.57	\$3,263.50	16.17%
500	300,000	600	\$25,715.53	\$29,756.19	\$4,040.66	15.71%
750	150,000	200	\$19,699.91	\$22,970.59	\$3,270.68	16.60%
750	300,000	400	\$30,268.11	\$35,163.53	\$4,895.42	16.17%
750	450,000	600	\$38,559.30	\$44,620.46	\$6,061.16	15.72%
1,000	200,000	200	\$26,257.22	\$30,618.24	\$4,361.02	16.61%
1,000	400,000	400	\$40,348.15	\$46,875.48	\$6,527.33	16.18%
1,000	600,000	600	\$51,403.08	\$59,484.73	\$8,081.65	15.72%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Secondary Voltage)

40% On-Peak
 60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$437.91	\$501.19	\$63.28	14.45%
15	6,000	400	\$649.76	\$745.22	\$95.46	14.69%
15	9,000	600	\$816.07	\$934.53	\$118.46	14.52%
25	5,000	200	\$708.52	\$814.21	\$105.68	14.92%
25	10,000	400	\$1,061.61	\$1,220.92	\$159.31	15.01%
25	15,000	600	\$1,338.80	\$1,536.44	\$197.65	14.76%
50	10,000	200	\$1,385.07	\$1,596.76	\$211.69	15.28%
50	20,000	400	\$2,091.24	\$2,410.20	\$318.95	15.25%
50	30,000	600	\$2,645.61	\$3,041.23	\$395.62	14.95%
75	15,000	200	\$2,061.61	\$2,379.31	\$317.70	15.41%
75	30,000	400	\$3,120.87	\$3,599.47	\$478.60	15.34%
75	45,000	600	\$3,952.43	\$4,546.02	\$593.59	15.02%
100	20,000	200	\$2,738.16	\$3,161.86	\$423.71	15.47%
100	40,000	400	\$4,150.50	\$4,788.74	\$638.24	15.38%
100	60,000	600	\$5,259.25	\$6,050.81	\$791.57	15.05%
200	40,000	200	\$5,444.33	\$6,292.07	\$847.74	15.57%
200	80,000	400	\$8,269.02	\$9,545.82	\$1,276.80	15.44%
200	120,000	600	\$10,486.51	\$12,069.97	\$1,583.46	15.10%
300	60,000	200	\$8,150.51	\$9,422.28	\$1,271.77	15.60%
300	120,000	400	\$12,387.54	\$14,302.90	\$1,915.36	15.46%
300	180,000	600	\$15,713.78	\$18,089.12	\$2,375.35	15.12%
500	100,000	200	\$13,562.86	\$15,682.69	\$2,119.83	15.63%
500	200,000	400	\$20,624.58	\$23,817.06	\$3,192.48	15.48%
500	300,000	600	\$26,168.31	\$30,127.44	\$3,959.13	15.13%
1,000	200,000	200	\$27,093.74	\$31,333.73	\$4,239.99	15.65%
1,000	400,000	400	\$41,217.19	\$47,602.48	\$6,385.29	15.49%
1,000	600,000	600	\$52,304.63	\$60,223.22	\$7,918.59	15.14%
3,000	600,000	200	\$81,217.25	\$93,937.89	\$12,720.63	15.66%
3,000	1,200,000	400	\$123,587.60	\$142,744.12	\$19,156.52	15.50%
3,000	1,800,000	600	\$156,849.94	\$180,606.35	\$23,756.41	15.15%
5,000	1,000,000	200	\$135,340.77	\$156,542.04	\$21,201.27	15.67%
5,000	2,000,000	400	\$205,958.01	\$237,885.76	\$31,927.75	15.50%
5,000	3,000,000	600	\$261,395.24	\$300,989.48	\$39,594.24	15.15%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Primary Voltage)

40% On-Peak
 60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$422.76	\$486.61	\$63.85	15.10%
15	6,000	400	\$631.46	\$726.56	\$95.10	15.06%
15	9,000	600	\$794.62	\$911.79	\$117.17	14.75%
25	5,000	200	\$683.27	\$789.91	\$106.63	15.61%
25	10,000	400	\$1,031.11	\$1,189.82	\$158.71	15.39%
25	15,000	600	\$1,303.05	\$1,498.54	\$195.50	15.00%
50	10,000	200	\$1,334.57	\$1,548.16	\$213.59	16.00%
50	20,000	400	\$2,030.24	\$2,348.00	\$317.75	15.65%
50	30,000	600	\$2,574.11	\$2,965.43	\$391.32	15.20%
75	15,000	200	\$1,985.86	\$2,306.41	\$320.55	16.14%
75	30,000	400	\$3,029.37	\$3,506.17	\$476.80	15.74%
75	45,000	600	\$3,845.18	\$4,432.32	\$587.14	15.27%
100	20,000	200	\$2,637.16	\$3,064.66	\$427.51	16.21%
100	40,000	400	\$4,028.50	\$4,664.34	\$635.84	15.78%
100	60,000	600	\$5,116.25	\$5,899.21	\$782.97	15.30%
200	40,000	200	\$5,242.33	\$6,097.67	\$855.34	16.32%
200	80,000	400	\$8,025.02	\$9,297.02	\$1,272.00	15.85%
200	120,000	600	\$10,200.51	\$11,766.77	\$1,566.26	15.35%
300	60,000	200	\$7,847.51	\$9,130.68	\$1,283.17	16.35%
300	120,000	400	\$12,021.54	\$13,929.70	\$1,908.16	15.87%
300	180,000	600	\$15,284.78	\$17,634.32	\$2,349.55	15.37%
500	100,000	200	\$13,057.86	\$15,196.69	\$2,138.83	16.38%
500	200,000	400	\$20,014.58	\$23,195.06	\$3,180.48	15.89%
500	300,000	600	\$25,453.31	\$29,369.44	\$3,916.13	15.39%
1,000	200,000	200	\$26,083.74	\$30,361.73	\$4,277.99	16.40%
1,000	400,000	400	\$39,997.19	\$46,358.48	\$6,361.29	15.90%
1,000	600,000	600	\$50,874.63	\$58,707.22	\$7,832.59	15.40%
3,000	600,000	200	\$78,187.25	\$91,021.89	\$12,834.63	16.42%
3,000	1,200,000	400	\$119,927.60	\$139,012.12	\$19,084.52	15.91%
3,000	1,800,000	600	\$152,559.94	\$176,058.35	\$23,498.41	15.40%
5,000	1,000,000	200	\$130,290.77	\$151,682.04	\$21,391.27	16.42%
5,000	2,000,000	400	\$199,858.01	\$231,665.76	\$31,807.75	15.92%
5,000	3,000,000	600	\$254,245.24	\$293,409.48	\$39,164.24	15.40%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Transmission Transformed Voltage)

40% On-Peak

60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$406.65	\$460.00	\$53.35	13.12%
15	6,000	400	\$610.49	\$694.34	\$83.85	13.73%
15	9,000	600	\$768.79	\$873.96	\$105.17	13.68%
25	5,000	200	\$656.42	\$745.56	\$89.13	13.58%
25	10,000	400	\$996.16	\$1,136.12	\$139.96	14.05%
25	15,000	600	\$1,260.00	\$1,435.49	\$175.50	13.93%
50	10,000	200	\$1,280.87	\$1,459.46	\$178.59	13.94%
50	20,000	400	\$1,960.34	\$2,240.60	\$280.25	14.30%
50	30,000	600	\$2,488.01	\$2,839.33	\$351.32	14.12%
75	15,000	200	\$1,905.31	\$2,173.36	\$268.05	14.07%
75	30,000	400	\$2,924.52	\$3,345.07	\$420.55	14.38%
75	45,000	600	\$3,716.03	\$4,243.17	\$527.14	14.19%
100	20,000	200	\$2,529.76	\$2,887.26	\$357.51	14.13%
100	40,000	400	\$3,888.70	\$4,449.54	\$560.84	14.42%
100	60,000	600	\$4,944.05	\$5,647.01	\$702.97	14.22%
200	40,000	200	\$5,027.53	\$5,742.87	\$715.34	14.23%
200	80,000	400	\$7,745.42	\$8,867.42	\$1,122.00	14.49%
200	120,000	600	\$9,856.11	\$11,262.37	\$1,406.26	14.27%
300	60,000	200	\$7,525.31	\$8,598.48	\$1,073.17	14.26%
300	120,000	400	\$11,602.14	\$13,285.30	\$1,683.16	14.51%
300	180,000	600	\$14,768.18	\$16,877.72	\$2,109.55	14.28%
500	100,000	200	\$12,520.86	\$14,309.69	\$1,788.83	14.29%
500	200,000	400	\$19,315.58	\$22,121.06	\$2,805.48	14.52%
500	300,000	600	\$24,592.31	\$28,108.44	\$3,516.13	14.30%
1,000	200,000	200	\$25,009.74	\$28,587.73	\$3,577.99	14.31%
1,000	400,000	400	\$38,599.19	\$44,210.48	\$5,611.29	14.54%
1,000	600,000	600	\$49,152.63	\$56,185.22	\$7,032.59	14.31%
3,000	600,000	200	\$74,965.25	\$85,699.89	\$10,734.63	14.32%
3,000	1,200,000	400	\$115,733.60	\$132,568.12	\$16,834.52	14.55%
3,000	1,800,000	600	\$147,393.94	\$168,492.35	\$21,098.41	14.31%
5,000	1,000,000	200	\$124,920.77	\$142,812.04	\$17,891.27	14.32%
5,000	2,000,000	400	\$192,868.01	\$220,925.76	\$28,057.75	14.55%
5,000	3,000,000	600	\$245,635.24	\$280,799.48	\$35,164.24	14.32%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Transmission Voltage)

40% On-Peak

60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$394.35	\$445.42	\$51.07	12.95%
15	6,000	400	\$597.89	\$679.43	\$81.54	13.64%
15	9,000	600	\$755.89	\$858.72	\$102.83	13.60%
25	5,000	200	\$635.92	\$721.26	\$85.33	13.42%
25	10,000	400	\$975.16	\$1,111.27	\$136.11	13.96%
25	15,000	600	\$1,238.50	\$1,410.09	\$171.60	13.86%
50	10,000	200	\$1,239.87	\$1,410.86	\$170.99	13.79%
50	20,000	400	\$1,918.34	\$2,190.90	\$272.55	14.21%
50	30,000	600	\$2,445.01	\$2,788.53	\$343.52	14.05%
75	15,000	200	\$1,843.81	\$2,100.46	\$256.65	13.92%
75	30,000	400	\$2,861.52	\$3,270.52	\$409.00	14.29%
75	45,000	600	\$3,651.53	\$4,166.97	\$515.44	14.12%
100	20,000	200	\$2,447.76	\$2,790.06	\$342.31	13.98%
100	40,000	400	\$3,804.70	\$4,350.14	\$545.44	14.34%
100	60,000	600	\$4,858.05	\$5,545.41	\$687.37	14.15%
200	40,000	200	\$4,863.53	\$5,548.47	\$684.94	14.08%
200	80,000	400	\$7,577.42	\$8,668.62	\$1,091.20	14.40%
200	120,000	600	\$9,684.11	\$11,059.17	\$1,375.06	14.20%
300	60,000	200	\$7,279.31	\$8,306.88	\$1,027.57	14.12%
300	120,000	400	\$11,350.14	\$12,987.10	\$1,636.96	14.42%
300	180,000	600	\$14,510.18	\$16,572.92	\$2,062.75	14.22%
500	100,000	200	\$12,110.86	\$13,823.69	\$1,712.83	14.14%
500	200,000	400	\$18,895.58	\$21,624.06	\$2,728.48	14.44%
500	300,000	600	\$24,162.31	\$27,600.44	\$3,438.13	14.23%
1,000	200,000	200	\$24,189.74	\$27,615.73	\$3,425.99	14.16%
1,000	400,000	400	\$37,759.19	\$43,216.48	\$5,457.29	14.45%
1,000	600,000	600	\$48,292.63	\$55,169.22	\$6,876.59	14.24%
3,000	600,000	200	\$72,505.25	\$82,783.89	\$10,278.63	14.18%
3,000	1,200,000	400	\$113,213.60	\$129,586.12	\$16,372.52	14.46%
3,000	1,800,000	600	\$144,813.94	\$165,444.35	\$20,630.41	14.25%
5,000	1,000,000	200	\$120,820.77	\$137,952.04	\$17,131.27	14.18%
5,000	2,000,000	400	\$188,668.01	\$215,955.76	\$27,287.75	14.46%
5,000	3,000,000	600	\$241,335.24	\$275,719.48	\$34,384.24	14.25%

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE (Overhead) - A01

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$40.47	\$49.58	\$9.11	22.51%
	300	\$46.85	\$57.47	\$10.63	22.68%
	400	\$59.61	\$73.26	\$13.66	22.91%
	500	\$72.36	\$89.05	\$16.69	23.06%
	600	\$85.12	\$104.84	\$19.72	23.17%
	675	\$94.69	\$116.68	\$21.99	23.23%
	750	\$104.25	\$128.52	\$24.27	23.28%
	1000	\$136.14	\$167.99	\$31.84	23.39%
	1500	\$199.92	\$246.92	\$47.00	23.51%
	2000	\$263.71	\$325.86	\$62.16	23.57%
	3000	\$391.27	\$483.74	\$92.47	23.63%
	4000	\$518.83	\$641.61	\$122.78	23.66%
5000	\$646.40	\$799.49	\$153.09	23.68%	
SUMMER	250	\$45.44	\$55.34	\$9.90	21.78%
	300	\$52.82	\$64.39	\$11.57	21.91%
	400	\$67.56	\$82.48	\$14.92	22.08%
	500	\$82.31	\$100.58	\$18.27	22.19%
	600	\$97.06	\$118.67	\$21.61	22.27%
	675	\$108.11	\$132.24	\$24.12	22.31%
	750	\$119.17	\$145.81	\$26.63	22.35%
	1000	\$156.04	\$191.04	\$35.00	22.43%
	1500	\$229.77	\$281.50	\$51.74	22.52%
	2000	\$303.50	\$371.97	\$68.47	22.56%
	3000	\$450.96	\$552.89	\$101.94	22.60%
	4000	\$598.42	\$733.82	\$135.41	22.63%
5000	\$745.87	\$914.75	\$168.88	22.64%	
AVERAGE MONTHLY	250	\$42.13	\$51.50	\$9.37	22.25%
	300	\$48.84	\$59.78	\$10.94	22.40%
	400	\$62.26	\$76.34	\$14.08	22.61%
	500	\$75.68	\$92.89	\$17.21	22.75%
	600	\$89.10	\$109.45	\$20.35	22.84%
	675	\$99.16	\$121.86	\$22.70	22.89%
	750	\$109.23	\$134.28	\$25.06	22.94%
	1000	\$142.78	\$175.67	\$32.90	23.04%
	1500	\$209.87	\$258.45	\$48.58	23.15%
	2000	\$276.97	\$341.23	\$64.26	23.20%
	3000	\$411.17	\$506.79	\$95.62	23.26%
	4000	\$545.36	\$672.35	\$126.99	23.29%
5000	\$679.56	\$837.91	\$158.35	23.30%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE - SPACE HEATING (Overhead) - A01

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$35.43	\$43.71	\$8.28	23.35%
	300	\$40.40	\$50.03	\$9.62	23.82%
	400	\$50.35	\$62.67	\$12.32	24.47%
	500	\$60.29	\$75.30	\$15.02	24.91%
	600	\$70.23	\$87.94	\$17.72	25.23%
	675	\$77.68	\$97.42	\$19.74	25.41%
	750	\$85.14	\$106.90	\$21.76	25.56%
	1000	\$109.99	\$138.50	\$28.50	25.91%
	1500	\$159.70	\$201.69	\$41.99	26.29%
	2000	\$209.41	\$264.88	\$55.48	26.49%
	3000	\$308.82	\$391.27	\$82.45	26.70%
	4000	\$408.23	\$517.65	\$109.42	26.80%
5000	\$507.65	\$644.04	\$136.39	26.87%	
SUMMER	250	\$47.44	\$57.34	\$9.90	20.87%
	300	\$54.82	\$66.39	\$11.57	21.11%
	400	\$69.56	\$84.48	\$14.92	21.45%
	500	\$84.31	\$102.58	\$18.27	21.67%
	600	\$99.06	\$120.67	\$21.61	21.82%
	675	\$110.11	\$134.24	\$24.12	21.91%
	750	\$121.17	\$147.81	\$26.63	21.98%
	1000	\$158.04	\$193.04	\$35.00	22.15%
	1500	\$231.77	\$283.50	\$51.74	22.32%
	2000	\$305.50	\$373.97	\$68.47	22.41%
	3000	\$452.96	\$554.89	\$101.94	22.51%
	4000	\$600.42	\$735.82	\$135.41	22.55%
5000	\$747.87	\$916.75	\$168.88	22.58%	
AVERAGE MONTHLY	250	\$39.44	\$48.25	\$8.82	22.36%
	300	\$45.21	\$55.48	\$10.27	22.72%
	400	\$56.75	\$69.94	\$13.19	23.24%
	500	\$68.29	\$84.40	\$16.10	23.58%
	600	\$79.84	\$98.85	\$19.01	23.82%
	675	\$88.49	\$109.69	\$21.20	23.96%
	750	\$97.15	\$120.54	\$23.39	24.07%
	1000	\$126.01	\$156.68	\$30.67	24.34%
	1500	\$183.72	\$228.96	\$45.24	24.62%
	2000	\$241.44	\$301.24	\$59.81	24.77%
	3000	\$356.87	\$445.81	\$88.94	24.92%
	4000	\$472.29	\$590.38	\$118.08	25.00%
5000	\$587.72	\$734.94	\$147.22	25.05%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE (Underground) - A03

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$42.47	\$51.58	\$9.11	21.45%
	300	\$48.85	\$59.47	\$10.63	21.75%
	400	\$61.61	\$75.26	\$13.66	22.17%
	500	\$74.36	\$91.05	\$16.69	22.44%
	600	\$87.12	\$106.84	\$19.72	22.63%
	675	\$96.69	\$118.68	\$21.99	22.75%
	750	\$106.25	\$130.52	\$24.27	22.84%
	1000	\$138.14	\$169.99	\$31.84	23.05%
	1500	\$201.92	\$248.92	\$47.00	23.28%
	2000	\$265.71	\$327.86	\$62.16	23.39%
	3000	\$393.27	\$485.74	\$92.47	23.51%
	4000	\$520.83	\$643.61	\$122.78	23.57%
5000	\$648.40	\$801.49	\$153.09	23.61%	
SUMMER	250	\$47.44	\$57.34	\$9.90	20.87%
	300	\$54.82	\$66.39	\$11.57	21.11%
	400	\$69.56	\$84.48	\$14.92	21.45%
	500	\$84.31	\$102.58	\$18.27	21.67%
	600	\$99.06	\$120.67	\$21.61	21.82%
	675	\$110.11	\$134.24	\$24.12	21.91%
	750	\$121.17	\$147.81	\$26.63	21.98%
	1000	\$158.04	\$193.04	\$35.00	22.15%
	1500	\$231.77	\$283.50	\$51.74	22.32%
	2000	\$305.50	\$373.97	\$68.47	22.41%
	3000	\$452.96	\$554.89	\$101.94	22.51%
	4000	\$600.42	\$735.82	\$135.41	22.55%
5000	\$747.87	\$916.75	\$168.88	22.58%	
AVERAGE MONTHLY	250	\$44.13	\$53.50	\$9.37	21.24%
	300	\$50.84	\$61.78	\$10.94	21.52%
	400	\$64.26	\$78.34	\$14.08	21.91%
	500	\$77.68	\$94.89	\$17.21	22.16%
	600	\$91.10	\$111.45	\$20.35	22.34%
	675	\$101.16	\$123.86	\$22.70	22.44%
	750	\$111.23	\$136.28	\$25.06	22.53%
	1000	\$144.78	\$177.67	\$32.90	22.72%
	1500	\$211.87	\$260.45	\$48.58	22.93%
	2000	\$278.97	\$343.23	\$64.26	23.03%
	3000	\$413.17	\$508.79	\$95.62	23.14%
	4000	\$547.36	\$674.35	\$126.99	23.20%
5000	\$681.56	\$839.91	\$158.35	23.23%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL SERVICE - SPACE HEATING (Underground) - A03

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$37.43	\$45.71	\$8.28	22.11%
	300	\$42.40	\$52.03	\$9.62	22.70%
	400	\$52.35	\$64.67	\$12.32	23.54%
	500	\$62.29	\$77.30	\$15.02	24.11%
	600	\$72.23	\$89.94	\$17.72	24.53%
	675	\$79.68	\$99.42	\$19.74	24.77%
	750	\$87.14	\$108.90	\$21.76	24.97%
	1000	\$111.99	\$140.50	\$28.50	25.45%
	1500	\$161.70	\$203.69	\$41.99	25.97%
	2000	\$211.41	\$266.88	\$55.48	26.24%
	3000	\$310.82	\$393.27	\$82.45	26.53%
	4000	\$410.23	\$519.65	\$109.42	26.67%
5000	\$509.65	\$646.04	\$136.39	26.76%	
SUMMER	250	\$49.44	\$59.34	\$9.90	20.02%
	300	\$56.82	\$68.39	\$11.57	20.37%
	400	\$71.56	\$86.48	\$14.92	20.85%
	500	\$86.31	\$104.58	\$18.27	21.16%
	600	\$101.06	\$122.67	\$21.61	21.39%
	675	\$112.11	\$136.24	\$24.12	21.52%
	750	\$123.17	\$149.81	\$26.63	21.62%
	1000	\$160.04	\$195.04	\$35.00	21.87%
	1500	\$233.77	\$285.50	\$51.74	22.13%
	2000	\$307.50	\$375.97	\$68.47	22.27%
	3000	\$454.96	\$556.89	\$101.94	22.41%
	4000	\$602.42	\$737.82	\$135.41	22.48%
5000	\$749.87	\$918.75	\$168.88	22.52%	
AVERAGE MONTHLY	250	\$41.44	\$50.25	\$8.82	21.28%
	300	\$47.21	\$57.48	\$10.27	21.76%
	400	\$58.75	\$71.94	\$13.19	22.45%
	500	\$70.29	\$86.40	\$16.10	22.90%
	600	\$81.84	\$100.85	\$19.01	23.23%
	675	\$90.49	\$111.69	\$21.20	23.43%
	750	\$99.15	\$122.54	\$23.39	23.59%
	1000	\$128.01	\$158.68	\$30.67	23.96%
	1500	\$185.72	\$230.96	\$45.24	24.36%
	2000	\$243.44	\$303.24	\$59.81	24.57%
	3000	\$358.87	\$447.81	\$88.94	24.78%
	4000	\$474.29	\$592.38	\$118.08	24.90%
5000	\$589.72	\$736.94	\$147.22	24.96%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL TIME OF DAY SERVICE (Overhead) - A02

35% On-Peak
 65% Off-Peak

Energy in kWh	Monthly Bill		Increase		
	Present	Proposed	Amount	Percent	
WINTER	250	\$41.68	\$50.20	\$8.51	20.42%
	300	\$47.90	\$57.81	\$9.91	20.69%
	400	\$60.35	\$73.05	\$12.70	21.05%
	500	\$72.79	\$88.28	\$15.49	21.29%
	600	\$85.23	\$103.52	\$18.29	21.46%
	675	\$94.56	\$114.94	\$20.38	21.55%
	750	\$103.89	\$126.37	\$22.47	21.63%
	1000	\$135.00	\$164.45	\$29.46	21.82%
	1500	\$197.20	\$240.62	\$43.42	22.02%
	2000	\$259.41	\$316.79	\$57.38	22.12%
	3000	\$383.83	\$469.13	\$85.30	22.22%
	4000	\$508.25	\$621.47	\$113.23	22.28%
5000	\$632.66	\$773.81	\$141.15	22.31%	
SUMMER	250	\$46.40	\$55.59	\$9.18	19.79%
	300	\$53.57	\$64.28	\$10.71	20.00%
	400	\$67.90	\$81.67	\$13.77	20.29%
	500	\$82.23	\$99.06	\$16.83	20.47%
	600	\$96.56	\$116.45	\$19.90	20.60%
	675	\$107.30	\$129.49	\$22.19	20.68%
	750	\$118.05	\$142.54	\$24.49	20.74%
	1000	\$153.87	\$186.01	\$32.14	20.89%
	1500	\$225.52	\$272.96	\$47.44	21.04%
	2000	\$297.17	\$359.91	\$62.74	21.11%
	3000	\$440.46	\$533.81	\$93.35	21.19%
	4000	\$583.75	\$707.70	\$123.95	21.23%
5000	\$727.05	\$881.60	\$154.56	21.26%	
AVERAGE MONTHLY	250	\$43.26	\$51.99	\$8.74	20.20%
	300	\$49.79	\$59.97	\$10.18	20.44%
	400	\$62.86	\$75.92	\$13.06	20.77%
	500	\$75.93	\$91.88	\$15.94	20.99%
	600	\$89.01	\$107.83	\$18.82	21.15%
	675	\$98.81	\$119.79	\$20.98	21.24%
	750	\$108.61	\$131.76	\$23.15	21.31%
	1000	\$141.29	\$171.64	\$30.35	21.48%
	1500	\$206.64	\$251.40	\$44.76	21.66%
	2000	\$272.00	\$331.16	\$59.17	21.75%
	3000	\$402.71	\$490.69	\$87.98	21.85%
	4000	\$533.41	\$650.22	\$116.80	21.90%
5000	\$664.12	\$809.74	\$145.62	21.93%	

Comparison Of Bills At Present & Proposed Rates

RESIDENTIAL TIME OF DAY SERVICE - SPACE HEATING (Overhead) - A02

35% On-Peak
 65% Off-Peak

Energy in kWh	Monthly Bill		Increase		
	Present	Proposed	Amount	Percent	
WINTER	250	\$37.36	\$45.41	\$8.05	21.53%
	300	\$42.32	\$51.67	\$9.35	22.09%
	400	\$52.23	\$64.19	\$11.95	22.89%
	500	\$62.15	\$76.71	\$14.56	23.43%
	600	\$72.06	\$89.22	\$17.16	23.82%
	675	\$79.49	\$98.61	\$19.12	24.05%
	750	\$86.93	\$108.00	\$21.07	24.24%
	1000	\$111.71	\$139.30	\$27.59	24.69%
	1500	\$161.28	\$201.89	\$40.61	25.18%
	2000	\$210.84	\$264.49	\$53.64	25.44%
	3000	\$309.98	\$389.67	\$79.70	25.71%
	4000	\$409.11	\$514.86	\$105.75	25.85%
5000	\$508.24	\$640.05	\$131.80	25.93%	
SUMMER	250	\$48.40	\$57.59	\$9.18	18.97%
	300	\$55.57	\$66.28	\$10.71	19.28%
	400	\$69.90	\$83.67	\$13.77	19.71%
	500	\$84.23	\$101.06	\$16.83	19.99%
	600	\$98.56	\$118.45	\$19.90	20.19%
	675	\$109.30	\$131.49	\$22.19	20.30%
	750	\$120.05	\$144.54	\$24.49	20.40%
	1000	\$155.87	\$188.01	\$32.14	20.62%
	1500	\$227.52	\$274.96	\$47.44	20.85%
	2000	\$299.17	\$361.91	\$62.74	20.97%
	3000	\$442.46	\$535.81	\$93.35	21.10%
	4000	\$585.75	\$709.70	\$123.95	21.16%
5000	\$729.05	\$883.60	\$154.56	21.20%	
AVERAGE MONTHLY	250	\$41.04	\$49.47	\$8.42	20.53%
	300	\$46.74	\$56.54	\$9.80	20.98%
	400	\$58.12	\$70.68	\$12.56	21.61%
	500	\$69.51	\$84.82	\$15.32	22.04%
	600	\$80.89	\$98.97	\$18.07	22.34%
	675	\$89.43	\$109.57	\$20.14	22.52%
	750	\$97.97	\$120.18	\$22.21	22.67%
	1000	\$126.43	\$155.54	\$29.10	23.02%
	1500	\$183.36	\$226.25	\$42.89	23.39%
	2000	\$240.29	\$296.96	\$56.67	23.59%
	3000	\$354.14	\$438.38	\$84.25	23.79%
	4000	\$467.99	\$579.81	\$111.82	23.89%
5000	\$581.84	\$721.23	\$139.39	23.96%	

Comparison Of Bills At Present & Proposed Rates

SMALL GENERAL SERVICE

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$40.15	\$46.95	\$6.80	16.94%
	300	\$46.03	\$53.90	\$7.87	17.10%
	400	\$57.77	\$67.78	\$10.01	17.32%
	500	\$69.52	\$81.67	\$12.14	17.47%
	600	\$81.27	\$95.55	\$14.28	17.57%
	750	\$98.89	\$116.38	\$17.48	17.68%
	1000	\$128.26	\$151.09	\$22.83	17.80%
	1500	\$187.01	\$220.51	\$33.51	17.92%
	2000	\$245.75	\$289.94	\$44.19	17.98%
	3000	\$363.23	\$428.79	\$65.55	18.05%
	4000	\$480.71	\$567.63	\$86.92	18.08%
5000	\$598.20	\$706.48	\$108.28	18.10%	
SUMMER	250	\$45.14	\$52.72	\$7.57	16.78%
	300	\$52.02	\$60.81	\$8.80	16.91%
	400	\$65.76	\$77.00	\$11.24	17.10%
	500	\$79.51	\$93.19	\$13.69	17.22%
	600	\$93.25	\$109.38	\$16.13	17.30%
	750	\$113.87	\$133.67	\$19.80	17.39%
	1000	\$148.23	\$174.15	\$25.92	17.48%
	1500	\$216.96	\$255.10	\$38.14	17.58%
	2000	\$285.68	\$336.05	\$50.37	17.63%
	3000	\$423.13	\$497.96	\$74.83	17.68%
	4000	\$560.58	\$659.87	\$99.28	17.71%
5000	\$698.03	\$821.77	\$123.74	17.73%	
AVERAGE MONTHLY	250	\$41.81	\$48.87	\$7.06	16.88%
	300	\$48.02	\$56.20	\$8.18	17.03%
	400	\$60.44	\$70.85	\$10.42	17.24%
	500	\$72.85	\$85.51	\$12.66	17.38%
	600	\$85.26	\$100.16	\$14.90	17.47%
	750	\$103.88	\$122.14	\$18.26	17.57%
	1000	\$134.92	\$158.78	\$23.86	17.68%
	1500	\$196.99	\$232.04	\$35.05	17.79%
	2000	\$259.06	\$305.31	\$46.25	17.85%
	3000	\$383.20	\$451.84	\$68.65	17.91%
	4000	\$507.34	\$598.38	\$91.04	17.94%
5000	\$631.48	\$744.91	\$113.44	17.96%	

Comparison Of Bills At Present & Proposed Rates

GENERAL SERVICE (Secondary Voltage)

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$435.00	\$514.18	\$79.18	18.20%
15	6,000	400	\$648.27	\$768.91	\$120.64	18.61%
15	9,000	600	\$816.00	\$967.29	\$151.29	18.54%
25	5,000	200	\$706.35	\$838.53	\$132.18	18.71%
25	10,000	400	\$1,061.80	\$1,263.08	\$201.28	18.96%
25	15,000	600	\$1,341.35	\$1,593.72	\$252.37	18.81%
50	10,000	200	\$1,384.72	\$1,649.41	\$264.69	19.11%
50	20,000	400	\$2,095.62	\$2,498.50	\$402.88	19.22%
50	30,000	600	\$2,654.72	\$3,159.79	\$505.07	19.03%
75	15,000	200	\$2,063.10	\$2,460.29	\$397.19	19.25%
75	30,000	400	\$3,129.44	\$3,733.92	\$604.48	19.32%
75	45,000	600	\$3,968.09	\$4,725.85	\$757.77	19.10%
100	20,000	200	\$2,741.47	\$3,271.17	\$529.70	19.32%
100	40,000	400	\$4,163.26	\$4,969.34	\$806.08	19.36%
100	60,000	600	\$5,281.46	\$6,291.92	\$1,010.47	19.13%
200	40,000	200	\$5,454.96	\$6,514.68	\$1,059.72	19.43%
200	80,000	400	\$8,298.55	\$9,911.03	\$1,612.49	19.43%
200	120,000	600	\$10,534.93	\$12,556.19	\$2,021.26	19.19%
300	60,000	200	\$8,168.45	\$9,758.19	\$1,589.74	19.46%
300	120,000	400	\$12,433.83	\$14,852.72	\$2,418.90	19.45%
300	180,000	600	\$15,788.41	\$18,820.46	\$3,032.05	19.20%
400	80,000	200	\$10,881.94	\$13,001.70	\$2,119.76	19.48%
400	160,000	400	\$16,569.11	\$19,794.41	\$3,225.30	19.47%
400	240,000	600	\$21,041.88	\$25,084.72	\$4,042.84	19.21%
500	100,000	200	\$13,595.43	\$16,245.21	\$2,649.79	19.49%
500	200,000	400	\$20,704.39	\$24,736.10	\$4,031.71	19.47%
500	300,000	600	\$26,295.36	\$31,348.99	\$5,053.63	19.22%
750	150,000	200	\$20,379.15	\$24,353.99	\$3,974.84	19.50%
750	300,000	400	\$31,042.60	\$37,090.33	\$6,047.73	19.48%
750	450,000	600	\$39,429.05	\$47,009.66	\$7,580.61	19.23%
1,000	200,000	200	\$27,162.87	\$32,462.77	\$5,299.90	19.51%
1,000	400,000	400	\$41,380.81	\$49,444.55	\$8,063.74	19.49%
1,000	600,000	600	\$52,562.74	\$62,670.33	\$10,107.59	19.23%

Comparison Of Bills At Present & Proposed Rates

GENERAL SERVICE (Primary Voltage)

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$419.85	\$499.57	\$79.72	18.99%
15	6,000	400	\$629.97	\$750.19	\$120.22	19.08%
15	9,000	600	\$794.55	\$944.46	\$149.91	18.87%
25	5,000	200	\$681.10	\$814.18	\$133.08	19.54%
25	10,000	400	\$1,031.30	\$1,231.88	\$200.58	19.45%
25	15,000	600	\$1,305.60	\$1,555.67	\$250.07	19.15%
50	10,000	200	\$1,334.22	\$1,600.71	\$266.49	19.97%
50	20,000	400	\$2,034.62	\$2,436.10	\$401.48	19.73%
50	30,000	600	\$2,583.22	\$3,083.69	\$500.47	19.37%
75	15,000	200	\$1,987.35	\$2,387.24	\$399.89	20.12%
75	30,000	400	\$3,037.94	\$3,640.32	\$602.38	19.83%
75	45,000	600	\$3,860.84	\$4,611.70	\$750.87	19.45%
100	20,000	200	\$2,640.47	\$3,173.77	\$533.30	20.20%
100	40,000	400	\$4,041.26	\$4,844.54	\$803.28	19.88%
100	60,000	600	\$5,138.46	\$6,139.72	\$1,001.27	19.49%
200	40,000	200	\$5,252.96	\$6,319.88	\$1,066.92	20.31%
200	80,000	400	\$8,054.55	\$9,661.43	\$1,606.89	19.95%
200	120,000	600	\$10,248.93	\$12,251.79	\$2,002.86	19.54%
300	60,000	200	\$7,865.45	\$9,465.99	\$1,600.54	20.35%
300	120,000	400	\$12,067.83	\$14,478.32	\$2,410.50	19.97%
300	180,000	600	\$15,359.41	\$18,363.86	\$3,004.45	19.56%
400	80,000	200	\$10,477.94	\$12,612.10	\$2,134.16	20.37%
400	160,000	400	\$16,081.11	\$19,295.21	\$3,214.10	19.99%
400	240,000	600	\$20,469.88	\$24,475.92	\$4,006.04	19.57%
500	100,000	200	\$13,090.43	\$15,758.21	\$2,667.79	20.38%
500	200,000	400	\$20,094.39	\$24,112.10	\$4,017.71	19.99%
500	300,000	600	\$25,580.36	\$30,587.99	\$5,007.63	19.58%
750	150,000	200	\$19,621.65	\$23,623.49	\$4,001.84	20.40%
750	300,000	400	\$30,127.60	\$36,154.33	\$6,026.73	20.00%
750	450,000	600	\$38,356.55	\$45,868.16	\$7,511.61	19.58%
1,000	200,000	200	\$26,152.87	\$31,488.77	\$5,335.90	20.40%
1,000	400,000	400	\$40,160.81	\$48,196.55	\$8,035.74	20.01%
1,000	600,000	600	\$51,132.74	\$61,148.33	\$10,015.59	19.59%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Secondary Voltage)

40% On-Peak
 60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$436.34	\$514.17	\$77.83	17.84%
15	6,000	400	\$646.95	\$764.89	\$117.94	18.23%
15	9,000	600	\$812.01	\$959.27	\$147.25	18.13%
25	5,000	200	\$705.92	\$835.85	\$129.93	18.41%
25	10,000	400	\$1,056.93	\$1,253.71	\$196.78	18.62%
25	15,000	600	\$1,332.04	\$1,577.67	\$245.64	18.44%
50	10,000	200	\$1,379.85	\$1,640.04	\$260.19	18.86%
50	20,000	400	\$2,081.87	\$2,475.77	\$393.90	18.92%
50	30,000	600	\$2,632.10	\$3,123.69	\$491.60	18.68%
75	15,000	200	\$2,053.79	\$2,444.24	\$390.45	19.01%
75	30,000	400	\$3,106.82	\$3,697.83	\$591.01	19.02%
75	45,000	600	\$3,932.15	\$4,669.71	\$737.56	18.76%
100	20,000	200	\$2,727.72	\$3,248.44	\$520.71	19.09%
100	40,000	400	\$4,131.77	\$4,919.88	\$788.12	19.07%
100	60,000	600	\$5,232.21	\$6,215.73	\$983.52	18.80%
200	40,000	200	\$5,423.46	\$6,465.22	\$1,041.75	19.21%
200	80,000	400	\$8,231.55	\$9,808.11	\$1,576.56	19.15%
200	120,000	600	\$10,432.44	\$12,399.81	\$1,967.36	18.86%
300	60,000	200	\$8,119.20	\$9,682.00	\$1,562.79	19.25%
300	120,000	400	\$12,331.34	\$14,696.34	\$2,365.00	19.18%
300	180,000	600	\$15,632.67	\$18,583.88	\$2,951.21	18.88%
500	100,000	200	\$13,510.68	\$16,115.56	\$2,604.87	19.28%
500	200,000	400	\$20,530.91	\$24,472.80	\$3,941.89	19.20%
500	300,000	600	\$26,033.14	\$30,952.04	\$4,918.90	18.89%
1,000	200,000	200	\$26,989.39	\$32,199.46	\$5,210.08	19.30%
1,000	400,000	400	\$41,029.84	\$48,913.94	\$7,884.10	19.22%
1,000	600,000	600	\$52,034.29	\$61,872.42	\$9,838.13	18.91%
3,000	600,000	200	\$80,904.21	\$96,535.09	\$15,630.88	19.32%
3,000	1,200,000	400	\$123,025.56	\$146,678.52	\$23,652.95	19.23%
3,000	1,800,000	600	\$156,038.92	\$185,553.95	\$29,515.03	18.92%
5,000	1,000,000	200	\$134,819.03	\$160,870.71	\$26,051.68	19.32%
5,000	2,000,000	400	\$205,021.29	\$244,443.09	\$39,421.81	19.23%
5,000	3,000,000	600	\$260,043.55	\$309,235.48	\$49,191.93	18.92%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Primary Voltage)

40% On-Peak
 60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$421.19	\$499.56	\$78.37	18.61%
15	6,000	400	\$628.65	\$746.17	\$117.52	18.69%
15	9,000	600	\$790.56	\$936.44	\$145.87	18.45%
25	5,000	200	\$680.67	\$811.50	\$130.83	19.22%
25	10,000	400	\$1,026.43	\$1,222.51	\$196.08	19.10%
25	15,000	600	\$1,296.29	\$1,539.62	\$243.34	18.77%
50	10,000	200	\$1,329.35	\$1,591.34	\$261.99	19.71%
50	20,000	400	\$2,020.87	\$2,413.37	\$392.50	19.42%
50	30,000	600	\$2,560.60	\$3,047.59	\$487.00	19.02%
75	15,000	200	\$1,978.04	\$2,371.19	\$393.15	19.88%
75	30,000	400	\$3,015.32	\$3,604.23	\$588.91	19.53%
75	45,000	600	\$3,824.90	\$4,555.56	\$730.66	19.10%
100	20,000	200	\$2,626.72	\$3,151.04	\$524.31	19.96%
100	40,000	400	\$4,009.77	\$4,795.08	\$785.32	19.59%
100	60,000	600	\$5,089.21	\$6,063.53	\$974.32	19.14%
200	40,000	200	\$5,221.46	\$6,270.42	\$1,048.95	20.09%
200	80,000	400	\$7,987.55	\$9,558.51	\$1,570.96	19.67%
200	120,000	600	\$10,146.44	\$12,095.41	\$1,948.96	19.21%
300	60,000	200	\$7,816.20	\$9,389.80	\$1,573.59	20.13%
300	120,000	400	\$11,965.34	\$14,321.94	\$2,356.60	19.70%
300	180,000	600	\$15,203.67	\$18,127.28	\$2,923.61	19.23%
500	100,000	200	\$13,005.68	\$15,628.56	\$2,622.87	20.17%
500	200,000	400	\$19,920.91	\$23,848.80	\$3,927.89	19.72%
500	300,000	600	\$25,318.14	\$30,191.04	\$4,872.90	19.25%
1,000	200,000	200	\$25,979.39	\$31,225.46	\$5,246.08	20.19%
1,000	400,000	400	\$39,809.84	\$47,665.94	\$7,856.10	19.73%
1,000	600,000	600	\$50,604.29	\$60,350.42	\$9,746.13	19.26%
3,000	600,000	200	\$77,874.21	\$93,613.09	\$15,738.88	20.21%
3,000	1,200,000	400	\$119,365.56	\$142,934.52	\$23,568.95	19.75%
3,000	1,800,000	600	\$151,748.92	\$180,987.95	\$29,239.03	19.27%
5,000	1,000,000	200	\$129,769.03	\$156,000.71	\$26,231.68	20.21%
5,000	2,000,000	400	\$198,921.29	\$238,203.09	\$39,281.81	19.75%
5,000	3,000,000	600	\$252,893.55	\$301,625.48	\$48,731.93	19.27%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Transmission Transformed Voltage)

40% On-Peak
 60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$405.08	\$468.90	\$63.82	15.75%
15	6,000	400	\$607.68	\$709.60	\$101.92	16.77%
15	9,000	600	\$764.73	\$893.96	\$129.22	16.90%
25	5,000	200	\$653.82	\$760.40	\$106.58	16.30%
25	10,000	400	\$991.48	\$1,161.56	\$170.08	17.15%
25	15,000	600	\$1,253.24	\$1,468.82	\$215.59	17.20%
50	10,000	200	\$1,275.65	\$1,489.14	\$213.49	16.74%
50	20,000	400	\$1,950.97	\$2,291.47	\$340.50	17.45%
50	30,000	600	\$2,474.50	\$2,905.99	\$431.50	17.44%
75	15,000	200	\$1,897.49	\$2,217.89	\$320.40	16.89%
75	30,000	400	\$2,910.47	\$3,421.38	\$510.91	17.55%
75	45,000	600	\$3,695.75	\$4,343.16	\$647.41	17.52%
100	20,000	200	\$2,519.32	\$2,946.64	\$427.31	16.96%
100	40,000	400	\$3,869.97	\$4,551.28	\$681.32	17.61%
100	60,000	600	\$4,917.01	\$5,780.33	\$863.32	17.56%
200	40,000	200	\$5,006.66	\$5,861.62	\$854.95	17.08%
200	80,000	400	\$7,707.95	\$9,070.91	\$1,362.96	17.68%
200	120,000	600	\$9,802.04	\$11,529.01	\$1,726.96	17.62%
300	60,000	200	\$7,494.00	\$8,776.60	\$1,282.59	17.11%
300	120,000	400	\$11,545.94	\$13,590.54	\$2,044.60	17.71%
300	180,000	600	\$14,687.07	\$17,277.68	\$2,590.61	17.64%
500	100,000	200	\$12,468.68	\$14,606.56	\$2,137.87	17.15%
500	200,000	400	\$19,221.91	\$22,629.80	\$3,407.89	17.73%
500	300,000	600	\$24,457.14	\$28,775.04	\$4,317.90	17.65%
1,000	200,000	200	\$24,905.39	\$29,181.46	\$4,276.08	17.17%
1,000	400,000	400	\$38,411.84	\$45,227.94	\$6,816.10	17.74%
1,000	600,000	600	\$48,882.29	\$57,518.42	\$8,636.13	17.67%
3,000	600,000	200	\$74,652.21	\$87,481.09	\$12,828.88	17.18%
3,000	1,200,000	400	\$115,171.56	\$135,620.52	\$20,448.95	17.76%
3,000	1,800,000	600	\$146,582.92	\$172,491.95	\$25,909.03	17.68%
5,000	1,000,000	200	\$124,399.03	\$145,780.71	\$21,381.68	17.19%
5,000	2,000,000	400	\$191,931.29	\$226,013.09	\$34,081.81	17.76%
5,000	3,000,000	600	\$244,283.55	\$287,465.48	\$43,181.93	17.68%

Comparison Of Bills At Present & Proposed Rates

GENERAL TOD SERVICE (Transmission Voltage)

40% On-Peak

60% Off-Peak

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$392.78	\$454.05	\$61.27	15.60%
15	6,000	400	\$595.08	\$694.90	\$99.82	16.77%
15	9,000	600	\$751.83	\$879.41	\$127.57	16.97%
25	5,000	200	\$633.32	\$735.65	\$102.33	16.16%
25	10,000	400	\$970.48	\$1,137.06	\$166.58	17.17%
25	15,000	600	\$1,231.74	\$1,444.57	\$212.84	17.28%
50	10,000	200	\$1,234.65	\$1,439.64	\$204.99	16.60%
50	20,000	400	\$1,908.97	\$2,242.47	\$333.50	17.47%
50	30,000	600	\$2,431.50	\$2,857.49	\$426.00	17.52%
75	15,000	200	\$1,835.99	\$2,143.64	\$307.65	16.76%
75	30,000	400	\$2,847.47	\$3,347.88	\$500.41	17.57%
75	45,000	600	\$3,631.25	\$4,270.41	\$639.16	17.60%
100	20,000	200	\$2,437.32	\$2,847.64	\$410.31	16.83%
100	40,000	400	\$3,785.97	\$4,453.28	\$667.32	17.63%
100	60,000	600	\$4,831.01	\$5,683.33	\$852.32	17.64%
200	40,000	200	\$4,842.66	\$5,663.62	\$820.95	16.95%
200	80,000	400	\$7,539.95	\$8,874.91	\$1,334.96	17.71%
200	120,000	600	\$9,630.04	\$11,335.01	\$1,704.96	17.70%
300	60,000	200	\$7,248.00	\$8,479.60	\$1,231.59	16.99%
300	120,000	400	\$11,293.94	\$13,296.54	\$2,002.60	17.73%
300	180,000	600	\$14,429.07	\$16,986.68	\$2,557.61	17.73%
500	100,000	200	\$12,058.68	\$14,111.56	\$2,052.87	17.02%
500	200,000	400	\$18,801.91	\$22,139.80	\$3,337.89	17.75%
500	300,000	600	\$24,027.14	\$28,290.04	\$4,262.90	17.74%
1,000	200,000	200	\$24,085.39	\$28,191.46	\$4,106.08	17.05%
1,000	400,000	400	\$37,571.84	\$44,247.94	\$6,676.10	17.77%
1,000	600,000	600	\$48,022.29	\$56,548.42	\$8,526.13	17.75%
3,000	600,000	200	\$72,192.21	\$84,511.09	\$12,318.88	17.06%
3,000	1,200,000	400	\$112,651.56	\$132,680.52	\$20,028.95	17.78%
3,000	1,800,000	600	\$144,002.92	\$169,581.95	\$25,579.03	17.76%
5,000	1,000,000	200	\$120,299.03	\$140,830.71	\$20,531.68	17.07%
5,000	2,000,000	400	\$187,731.29	\$221,113.09	\$33,381.81	17.78%
5,000	3,000,000	600	\$239,983.55	\$282,615.48	\$42,631.93	17.76%

Xcel Energy Company's Marginal Customer and Facilities Cost Analysis

Prepared by

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Senior Director

Energy and Environmental Economics

October 15, 2021

1. Introduction

Xcel Energy Company (the Company) retained Energy and Environmental Economics (E3) to prepare an electricity marginal cost analysis focused on the components of service that are directly driven by customer additions and customer service. The study identified the cost and size characteristics of Xcel Energy's local distribution facilities by customer class which are a function of customer connections, as well as other per-customer-related marginal costs required by class, including meter, service drop and customer assistance and account expenses. This document provides a summary of the approach and the key facilities and customer-related costs for the residential class.

2. Overview of Approach

Marginal Distribution Facilities Costs

The components of local distribution facilities include primary-to-secondary transformers and switchgear, poles, secondary lines and local primary taps. Local transformers and local conductors are less extensively shared as compared to upstream distribution substations. As a result, the Company's planning design standards, regarding the type and capacity rating of transformers to be installed, must consider the long-term maximum demand of all customers expected to be connected to those facilities. Such "design demand", which is determined at the time the customer connects, may be revisited at the time of replacing the transformer. However, the marginal facilities cost does not fluctuate with the customer's actual peak load or energy usage in a given month or a particular year.

The required size of local distribution facilities (and customer's design demand) varies depending on whether the customer uses all electric appliances (e.g., electric space heating customers) or whether it partially relies on gas. The cost of facilities also varies depending on whether the installation is underground or overhead, single phase or three-phase. Higher costs may be observed in very rural areas as compared to urban areas which are more densely populated.

For residential customers, E3 computed marginal per kVA investment in local facilities for various residential customer types, differentiating between single family and apartments or multi-family units. In consultation with the Company, and based on a review of work orders that involved transformer installation, we identified the type of transformers that are commonly used to serve them, which is strongly related to the number of customers served on average per transformer in each case.

An estimate of installed local conductor cost, separately for overhead and underground, was included, using weighted average cost per foot for typical conductors for single phase and three-

phase connections, in 2022 dollars. Current per-kVA cost of typical overhead and underground transformers serving residential customers were obtained from the Company's input to their minimum system study. All marginal installed costs were annualized using an economic carrying charge and adjusted by a general plant loading factor and a plant-related A&G loading factor. Marginal O&M expenses were added and adjusted by non-plant related A&G loading factor and working capital revenue requirement.

The marginal facilities costs for were estimated as a fixed monthly distribution cost per kW of customer's design demand, separately for single family and apartments. The transformer capacity divided by the number of customers served from it provided a proxy for customer design demand in each category. The residential per-kVA cost was then restated as a per-customer cost using average design demand in each category.

Meter, Service and Customer Account and Service Expenses

Xcel Energy provided current installed cost of a typical meter for residential customers. The Company did not have information on current residential installed cost per foot of service, thus E3 estimated the average installed cost of underground and overhead service drops for residential customers using a proxy cost per foot and assuming 100 feet of service length, the maximum footage that the Company can install before requiring an up-front payment. Such proxy was based on data from other utilities in MN with similar service territory characteristics.

Marginal residential customer expenses were computed using average customer accounts and customer service and informational per-customer expenses by class. Class weights developed for these expenses were consistent with those used in the Company's embedded cost of service study.

All marginal installed costs were annualized using an economic carrying charge and adjusted by a general plant loading factor and a plant-related A&G loading factor. Marginal O&M expenses were adjusted by non-plant related A&G loading factor and working capital revenue requirement.

Summary of Residential Marginal Customer and Connection Costs

Table 1 provides the residential customer-related marginal costs by category. The multi-family costs are less than half of those of the single-family units, reflecting the much more extensive share of the facilities, as well as the fact that the majority of the apartment connections require an underground service, which is paid for by the customer and therefore is not a marginal cost to be included in standard residential rates.

Table 1. Marginal Residential Customer Costs

	Monthly Marginal Customer Cost (2022\$/cust.)	Monthly Marginal Local Facilities Cost (2022\$/cust.)	Monthly Total per-Customer Cost (2022\$/cust.)
Residential Single family	\$11.94	\$13.52	\$25.46
Residential Multi- family	\$5.16	\$5.71	\$10.86
Average Residential Customer			\$22.10

Northern States Power Company
 Electric Utility - Minnesota
VOLTAGE DISCOUNT ANALYSIS
Energy Charge

Docket No. E002/GR-21-630
 Exhibit____(NNP-1), Schedule 8
 Page 1 of 4

	Secondary	Primary	Transmission Transformed	Transmission
1 2022 E8760 Losses	6.70%	5.02%	2.68%	2.55%
2 2022 Percent Difference	0.00%	1.687%	4.022%	4.151%
3 2023 E8760 Losses	6.70%	5.02%	2.68%	2.55%
4 2023 Percent Difference	0.00%	1.686%	4.022%	4.154%
5 2024 E8760 Losses	6.41%	4.75%	2.36%	2.41%
6 2024 Percent Difference	0.30%	1.659%	4.048%	3.992%

Proposed General Service - per kWh

7 Base Energy and Fuel - 2022	7.751 ¢	7.620 ¢	7.439 ¢	7.429 ¢
8 Base Energy and Fuel - 2023	8.036 ¢	7.901 ¢	7.713 ¢	7.703 ¢
9 Base Energy and Fuel - 2024	8.248 ¢	8.111 ¢	7.914 ¢	7.919 ¢

Energy Voltage Discount - per kWh

10 Discount from Secondary - 2022		0.131 ¢	0.312 ¢	0.322 ¢
11 Discount from Secondary - 2023		0.136 ¢	0.323 ¢	0.334 ¢
12 Discount from Secondary - 2024		0.137 ¢	0.334 ¢	0.329 ¢

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	Distribution Cost - 2022	Secondary	Primary	Transmission Transformed	Total
1	Sec - Line 35	\$20,896	\$0	\$0	\$20,896
2	Pri - Line 34	\$60,060	\$15,104	\$0	\$75,164
3	Sub - Line 33	\$33,215	\$8,350	\$1,831	\$43,396
4	Total	\$114,171	\$23,454	\$1,831	\$139,456

Billing KW

9	Sec	37,570			37,570
10	Pri	37,570	7,915		45,484
11	Sub	37,570	7,915	2,803	48,287

Losses

12	Sec	1.0000			
13	Pri	1.0209	1.0000		
14	Sub	1.0367	1.0155	1.0000	

Billing KW with Losses

15	Sec	37,570			37,570
16	Pri	38,355	7,915		46,270
17	Sub	38,949	8,037	2,803	49,789

Incremental Cost per kW - 2022

18	Sec (1) / (15)	\$0.56			\$0.56	(a)
19	Pri (2) / (16)	\$1.60	\$1.91		\$1.62	(b)
20	Sub (3) / (17)	\$0.88	\$1.06	\$0.65	\$0.87	(c)

Demand Voltage Discount	2022 Cost	Present	Proposed
Primary (a)	\$0.56	\$0.80	\$0.70
Tr Transformed (a) + (b)	\$2.18	\$1.55	\$1.85
Trans (a) + (b) + (c)	\$3.05	\$2.35	\$2.70

CCOSS - Page 2

	Distribution Cost - 2023	Secondary	Primary	Transmission Transformed	Total
1	Sec - Line 35	\$24,132	\$0	\$0	\$24,132
2	Pri - Line 34	\$64,177	\$16,300	\$0	\$80,477
3	Sub - Line 33	\$36,437	\$9,221	\$1,940	\$47,598
4	Total	\$124,746	\$25,522	\$1,940	\$152,208

Billing KW

9	Sec	37,176			37,176
10	Pri	37,176	7,659		44,835
11	Sub	37,176	7,659	2,782	47,617

Losses

12	Sec	1.0000			
13	Pri	1.0209	1.0000		
14	Sub	1.0367	1.0155	1.0000	

Billing KW with Losses

15	Sec	37,176			37,176
16	Pri	37,953	7,659		45,612
17	Sub	38,541	7,777	2,782	49,100

Cost per kW - 2023

18	Sec (1) / (15)	\$0.65			\$0.65	(a)
19	Pri (2) / (16)	\$1.73	\$2.13		\$1.76	(b)
20	Sub (3) / (17)	\$0.98	\$1.20	\$0.70	\$0.97	(c)

Demand Voltage Discount	2023 Cost	Present	Proposed
Primary (a)	\$0.65	\$0.80	\$0.70
Tr Transformed (a) + (b)	\$2.41	\$1.55	\$2.10
Trans (a) + (b) + (c)	\$3.38	\$2.35	\$3.05

CCOSS - Page 2

	Distribution Cost - 2024	Secondary	Primary	Transmission Transformed	Total
1	Sec - Line 35	\$26,647	\$0	\$0	\$26,647
2	Pri - Line 34	\$67,357	\$16,599	\$0	\$83,956
3	Sub - Line 33	\$39,746	\$9,789	\$2,291	\$51,825
4	Total	\$133,749	\$26,388	\$2,291	\$162,429

Billing KW

9	Sec	36,799			36,799
10	Pri	36,799	7,437		44,237
11	Sub	36,799	7,437	2,784	47,020

Losses

12	Sec	1.0000			
13	Pri	1.0209	1.0000		
14	Sub	1.0367	1.0155	1.0000	

Billing KW with Losses

15	Sec	36,799			36,799
16	Pri	37,568	7,437		45,006
17	Sub	38,150	7,553	2,784	48,486

Cost per kW - 2024

18	Sec (1) / (15)	\$0.72			\$0.72	(a)
19	Pri (2) / (16)	\$1.83	\$2.23		\$1.87	(b)
20	Sub (3) / (17)	\$1.08	\$1.32	\$0.82	\$1.07	(c)

Demand Voltage Discount	2024 Cost	Present	Proposed
Primary (a)	\$0.72	\$0.80	\$0.70
Tr Transformed (a) + (b)	\$2.59	\$1.55	\$2.35
Trans (a) + (b) + (c)	\$3.66	\$2.35	\$3.35

LED Street Light Fuel Cost Savings (2016-22)
Estimates for July 2021 through December 2022

Year	Month	LED Unit Count				Lighting Hours	Fuel Clause Rate	Estimated LED Fuel Clause Cost					LED Annual Cost (000s)	Estimated HPS Fuel Clause Cost					HPS Annual Cost (000s)	Annual LED Savings (000s)
		Equivalent Wattage						Equivalent Fixture Wattage						Lamp & Ballast Fixture Wattage						
		100W	150W	250W	400W			100W 39W	150W 65W	250W 155W	400W 246W	Monthly Total		100W 117W	150W 171W	250W 307W	400W 482W	Monthly Total		
2016	6	198	26	4	-	244	0.01762	\$33	\$7	\$3	\$0	\$43		\$100	\$19	\$5	\$0	\$124		
	7	-	-	-	-	258	0.01668	\$0	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0		
	8	1,082	142	21	-	293	0.01747	\$216	\$47	\$17	\$0	\$280		\$648	\$124	\$33	\$0	\$806		
	9	457	60	9	-	334	0.01776	\$106	\$23	\$8	\$0	\$137		\$317	\$61	\$16	\$0	\$394		
	10	1,055	149	50	5	393	0.01811	\$293	\$69	\$55	\$8	\$424		\$878	\$181	\$108	\$16	\$1,184		
	11	1,751	336	130	14	422	0.01917	\$552	\$177	\$163	\$28	\$920		\$1,657	\$465	\$324	\$55	\$2,500		
	12	3,161	597	243	29	464	0.01777	\$1,016	\$320	\$310	\$60	\$1,706	\$4	\$3,049	\$842	\$614	\$117	\$4,623	\$10	\$6
2017	1	3,046	837	188	22	447	0.01876	\$996	\$456	\$244	\$45	\$1,742		\$2,989	\$1,201	\$484	\$89	\$4,762		
	2	9,744	3,202	406	22	374	0.01743	\$2,477	\$1,357	\$410	\$35	\$4,280		\$7,432	\$3,569	\$813	\$69	\$11,884		
	3	11,845	3,650	524	22	365	0.01653	\$2,787	\$1,431	\$490	\$33	\$4,741		\$8,361	\$3,766	\$971	\$64	\$13,162		
	4	19,699	6,004	1,222	25	297	0.01999	\$4,561	\$2,317	\$1,124	\$36	\$8,039		\$13,684	\$6,095	\$2,227	\$71	\$22,077		
	5	16,094	4,460	921	26	269	0.02085	\$3,520	\$1,626	\$801	\$35	\$5,983		\$10,561	\$4,277	\$1,587	\$69	\$16,494		
	6	16,624	4,977	1,643	24	244	0.02007	\$3,175	\$1,584	\$1,247	\$29	\$6,035		\$9,525	\$4,168	\$2,469	\$57	\$16,219		
	7	18,886	5,220	1,449	24	258	0.01961	\$3,727	\$1,717	\$1,136	\$30	\$6,609		\$11,180	\$4,516	\$2,250	\$59	\$18,005		
	8	24,868	10,693	3,214	24	293	0.01653	\$4,697	\$3,366	\$2,413	\$29	\$10,505		\$14,092	\$8,856	\$4,778	\$56	\$27,783		
	9	27,675	9,304	2,122	24	334	0.01721	\$6,204	\$3,476	\$1,891	\$34	\$11,605		\$18,612	\$9,145	\$3,745	\$66	\$31,568		
	10	22,516	7,807	2,174	24	393	0.01932	\$6,668	\$3,853	\$2,558	\$45	\$13,123		\$20,003	\$10,136	\$5,067	\$88	\$35,293		
	11	23,454	7,855	2,292	24	422	0.02015	\$7,778	\$4,341	\$3,021	\$50	\$15,190		\$23,334	\$11,421	\$5,983	\$98	\$40,836		
	12	23,131	7,699	2,255	24	464	0.01994	\$8,347	\$4,630	\$3,234	\$55	\$16,266	\$104	\$25,040	\$12,181	\$6,406	\$107	\$43,734	\$282	\$178
2018	1	24,973	8,112	2,392	24	447	0.02194	\$9,552	\$5,171	\$3,636	\$58	\$18,417		\$28,655	\$13,604	\$7,202	\$113	\$49,574		
	2	24,577	7,892	2,397	24	374	0.02222	\$7,965	\$4,263	\$3,087	\$49	\$15,365		\$23,896	\$11,215	\$6,115	\$96	\$41,322		
	3	29,020	8,419	2,860	24	365	0.01981	\$8,183	\$3,957	\$3,206	\$43	\$15,389		\$24,550	\$10,410	\$6,349	\$84	\$41,393		
	4	29,528	8,349	2,800	24	297	0.01954	\$6,683	\$3,149	\$2,518	\$34	\$12,385		\$20,050	\$8,285	\$4,988	\$67	\$33,390		
	5	30,557	8,652	2,947	24	269	0.02289	\$7,338	\$3,423	\$2,812	\$36	\$13,609		\$22,014	\$9,004	\$5,571	\$71	\$36,660		
	6	31,862	8,935	3,046	24	244	0.02288	\$6,937	\$3,242	\$2,636	\$33	\$12,848		\$20,811	\$8,529	\$5,221	\$65	\$34,626		
	7	34,530	9,664	3,289	24	258	0.02201	\$7,647	\$3,567	\$2,895	\$34	\$14,143		\$22,942	\$9,384	\$5,734	\$66	\$38,126		
	8	35,930	10,115	3,284	24	293	0.01788	\$7,341	\$3,444	\$2,667	\$31	\$13,843		\$22,023	\$9,061	\$5,282	\$61	\$36,427		
	9	40,108	10,479	3,441	24	334	0.02414	\$12,612	\$5,492	\$4,301	\$48	\$22,452		\$37,835	\$14,447	\$8,518	\$93	\$60,894		
	10	37,297	10,345	3,460	24	393	0.02146	\$12,268	\$5,671	\$4,523	\$50	\$22,511		\$36,803	\$14,920	\$8,958	\$98	\$60,778		
	11	36,771	10,451	3,356	21	422	0.0204	\$12,346	\$5,848	\$4,478	\$44	\$22,716		\$37,037	\$15,385	\$8,868	\$87	\$61,378		
	12	37,862	10,780	3,471	23	464	0.02176	\$14,909	\$7,075	\$5,432	\$57	\$27,473	\$211	\$44,727	\$18,612	\$10,759	\$112	\$74,211	\$569	\$358
2019	1	36,403	10,284	3,337	21	447	0.02118	\$13,441	\$6,329	\$4,897	\$49	\$24,715		\$40,323	\$16,649	\$9,699	\$96	\$66,767		
	2	53,778	16,299	3,355	25	374	0.01571	\$12,323	\$6,225	\$3,056	\$36	\$21,639		\$36,969	\$16,375	\$6,052	\$71	\$59,468		
	3	63,290	17,642	3,581	24	365	0.02087	\$18,802	\$8,735	\$4,228	\$45	\$31,811		\$56,407	\$22,980	\$8,374	\$88	\$87,850		
	4	62,135	18,217	3,676	24	297	0.02072	\$14,912	\$7,287	\$3,506	\$36	\$25,741		\$44,737	\$19,170	\$6,944	\$71	\$70,922		
	5	50,496	14,045	3,639	24	269	0.02311	\$12,243	\$5,675	\$3,506	\$37	\$21,461		\$36,728	\$14,930	\$6,945	\$72	\$58,675		
	6	70,924	21,398	3,696	24	244	0.01894	\$12,783	\$6,428	\$2,648	\$27	\$21,885		\$38,348	\$16,910	\$5,244	\$53	\$60,555		
	7	53,784	16,273	3,684	24	258	0.02363	\$12,788	\$6,449	\$3,482	\$36	\$22,754		\$38,364	\$16,965	\$6,896	\$71	\$62,295		
	8	57,721	17,426	3,665	24	293	0.02082	\$13,733	\$6,910	\$3,466	\$36	\$24,144		\$41,198	\$18,178	\$6,864	\$71	\$66,311		
	9	57,825	17,498	3,634	24	334	0.01885	\$14,198	\$7,161	\$3,546	\$37	\$24,942		\$42,595	\$18,838	\$7,024	\$73	\$68,530		
	10	57,878	17,545	3,689	24	393	0.01848	\$16,394	\$8,283	\$4,153	\$43	\$28,872		\$49,181	\$21,790	\$8,225	\$84	\$79,280		
	11	57,265	17,278	3,616	24	422	0.01821	\$17,162	\$8,630	\$4,507	\$45	\$30,145		\$51,487	\$22,705	\$8,531	\$89	\$82,811		
	12	57,812	17,556	3,673	24	464	0.01676	\$17,534	\$8,874	\$4,427	\$46	\$30,881	\$309	\$52,601	\$23,347	\$8,769	\$90	\$84,807	\$848	\$539
2020	1	56,906	17,255	3,640	24	447	0.0194	\$19,246	\$9,726	\$4,893	\$51	\$33,916		\$57,737	\$25,587	\$9,691	\$100	\$93,115		
	2	57,448	17,359	3,601	24	374	0.02105	\$17,639	\$8,883	\$4,394	\$46	\$30,962		\$52,916	\$23,369	\$8,703	\$91	\$85,079		
	3	58,395	17,627	3,716	24	365	0.01966	\$16,342	\$8,222	\$4,133	\$42	\$28,740		\$49,027	\$21,630	\$8,186	\$83	\$78,926		
	4	57,918	17,605	3,665	24	297	0.0203	\$13,619	\$6,899	\$3,425	\$36	\$23,978		\$40,856	\$18,150	\$6,784	\$70	\$65,859		
	5	57,550	17,457	3,641	24	269	0.02416	\$14,587	\$7,374	\$3,668	\$38	\$25,667		\$43,760	\$19,401	\$7,265	\$75	\$70,501		
	6	61,523	18,542	3,660	24	244	0.02456	\$14,379	\$7,223	\$3,600	\$35	\$25,036		\$43,136	\$19,001	\$6,733	\$69	\$68,940		
	7	60,223	18,197	3,782	24	258	0.0213	\$12,907	\$6,500	\$3,222	\$32	\$22,661		\$38,721	\$17,100	\$6,381	\$64	\$62,265		
	8	56,561	17,085	3,605	24	293	0.02083	\$13,463	\$6,778	\$3,410	\$36	\$23,687		\$40,388	\$17,831	\$6,754	\$71	\$65,044		
	9	75,755	22,669	3,707	24	334	0.02257	\$22,272	\$11,108	\$4,331	\$45	\$37,755		\$66,815	\$29,222	\$8,578	\$87	\$104,703		
	10	41,677	12,899	3,595	24	393	0.02181	\$13,932	\$7,187	\$4,776	\$50	\$25,945		\$41,795	\$18,907	\$9,460	\$97	\$70,260		
	11	59,075	17,473	3,904	24	422	0.01974	\$19,192	\$9,461	\$5,041	\$49	\$33,743		\$57,577	\$24,889	\$9,984	\$96	\$92,547		
	12	60,229	17,731	3,718	24	464	0.01831	\$19,956	\$9,792	\$4,896	\$50	\$34,694	\$347	\$59,868	\$25,760	\$9,697	\$98	\$95,423	\$953	\$606
2021	1	64,614	18,834	3,589	22	447	0.01816	\$20,456	\$9,938	\$4,515	\$44	\$34,953		\$61,367	\$26,144	\$8,943	\$86	\$96,540		
	2	49,267	14,499	3,457	24	374	0.02048	\$14,717	\$7,218	\$4,105	\$45	\$26,085		\$44,151	\$18,990	\$8,130	\$89	\$71,360		
	3	62,894	17,579	3,933	26	365	0.02129	\$19,061	\$8,879	\$4,737	\$50	\$32,727		\$57						

NSP-MN
 Per HPS/LED Lighting Equivalent

RATE IMPACT	250W/99W	400W/176W
Proposed 2022 HPS Directional Protective Lighting Service Pri	\$17.90	\$22.62
<i>Maintenance Savings</i>	(\$0.91)	(\$0.91)
<i>System Allocation Cost Reduction</i>	(\$2.33)	(\$3.42)
<i>Incremental Capital Revenue Requirement</i>	\$2.44	\$2.94
<i>LED Fixture Rate Impact - Company Owned Street Lights</i>	(\$0.80)	(\$1.39)
Proposed 2022 LED Directional Protective Lighting Service Pri	\$17.10	\$21.23

BILL IMPACT (Estimated)	250W/99W	400W/176W
Proposed 2022 HPS Monthly Average Bill Per Directional Light	\$20.32	\$26.43
<i>LED Fixture Impact on HPS Street Lighting Rate</i>	(\$0.80)	(\$1.39)
<i>Fuel Clause and Rider Savings Estimate</i>	(\$1.64)	(\$2.42)
Total Monthly Bill Impact	(\$2.44)	(\$3.81)
Proposed 2022 LED Monthly Average Bill Per Directional Light	\$17.89	\$22.61
<i>Percentage Savings (increase)</i>	12.0%	14.4%

Fuel Clause Rider - Fuel Adjustment Factor Calculation

		SERVICE CATEGORY					
		Residential	C&I Non-Dmd	C&I Demand	Outdoor Lighting	RETAIL	
STEP 1: CLASS RATIOS							
1.	Hourly Marginal Energy Costs x Hourly Loads*	\$207,629,528	\$19,650,385	\$428,254,139	\$2,204,080	\$657,738,132	
2.	MWh Energy at Generator	9,326,909	883,448	19,770,410	131,748	30,112,515	
3.	Load-Weighted Marginal Energy Cost /MWh =(1)/(2)	\$22.261	\$22.243	\$21.661	\$16.730	\$21.843	
4.	Class Ratio (Class Unit Cost / Retail Unit Cost)	1.0192	1.0183	0.9917	0.7659	1.0000	
STEP 2: C&I DEMAND TOD RATIOS							
				Non-TOD	On-Peak	Off-Peak	
5.	Ratio of On-Peak to Off-Peak System Weighted Marginal Energy Costs				1.593		
6.	C&I Demand Class Time-of-Day Percentages from 8760 loads				0.4037	0.5963	
7.	C&I Demand TOD On-Peak Ratio = 1 / (0.4037 + (0.5963 / 1.593)) **				1.2853		
8.	C&I Demand TOD Off-Peak Ratio = 1 / ((1.593 x 0.4037) + 0.5963) **					0.8068	
9.	C&I Demand Non-TOD On-Peak Weighting			0.4275			
10.	C&I Demand Non-TOD Off-Peak Weighting			0.5725			
11.	C&I Demand Non-TOD Ratio = (0.4275 x 1.2853) + (0.5725 x 0.8068)			1.0114			
STEP 3: FUEL ADJUSTMENT FACTOR							
12.	FAF = Step 1, or for C&I Demand, Step 1 x Step 2	1.0192	1.0183	1.0030	1.2746	0.8001	0.7659
		(4)	(4)	(4) x (11)	(4) x (7)	(4) x (8)	(4)

* E8760 Allocator = Sum of Hourly System Marginal Costs times Hourly Class Loads

** Based on C&I Demand Weighted Average = (40.37% class on-peak x on-peak charge) + (59.63% class off-peak x off-peak charge)