# 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-20-723 Exhibit\_\_\_(SVH-1)

> > Rate Design

November 2, 2020

# **Table of Contents**

I.	Intro	oductio	on and	Qualifications	1	
II.	Reve	enue D	eterm	ination	2	
III.	Rate Design					
	A. Pricing Objectives				8	
	B. Class Revenue Apportionment				9	
	C.	C. Decoupling Proposal				
	D.	D. Other Rate Design Dockets				
	Ε.	Low	Incom	me Discount	17	
	F.	Rate	e Desig	gn Proposals	19	
		1.	Res	idential and Small Commercial Customer Charges	19	
		2.	Res	idential Service	22	
		3.		idential Controlled Air Conditioning and Water ating Rider	23	
		4.		I Demand Class Rate Design	26	
			a.	Base Energy and Demand Rates	26	
			b.	Interruptible Service	26	
			c.	Real Time Pricing	28	
			d.	Voltage Discounts	29	
			e.	General Time of Day Service	29	
			f.	Business Incentive and Sustainability Rider	30	
		5.	Stre	eet Lighting	32	
		6.	Fue	el Clause Rider	34	
	G.	Dev	elopm	nent of 2022 and 2023 Rates	34	
IV	Con	clusior	- 1		34	

# **Schedules**

Qualifications	Schedule 1
Summary of Tariff Changes	Schedule 2
Sales and Revenues by Rate	Schedule 3
Revenue by Major Rate Class	Schedule 4
Base Rate Revenue Comparison	Schedule 5
Monthly Bill Comparison	Schedule 6
Marginal Cost Study – Customer Related Costs	Schedule 7
Voltage Discount Analysis	Schedule 8
LED Fuel Cost Savings	Schedule 9
Fuel Clause Rider-Fuel Adjustment Factor Calculation	Schedule 10

2		
3	Q.	PLEASE STATE YOUR NAME AND POSITION.
4	Α.	My name is Steve Huso. My position is Pricing Consultant for Northern States
5		Power Company, doing business as Xcel Energy (NSPM or the Company).
6		
7	Q.	PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.
8	Α.	I have 40 years of electric pricing experience with the Company. I provide rate
9		design, rate-revenue determinations, cost allocations, and other pricing
10		functions for the utility operating subsidiaries of Xcel Energy Inc. My
11		qualifications and experience are further described in Exhibit(SVH-1),
12		Schedule 1.
13		
14	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?
15	Α.	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(SVH-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	Α.	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.

I. INTRODUCTION AND QUALIFICATIONS

#### II. REVENUE DETERMINATION

3	Q.	WHAT ARE THE 2021 TEST YEAR ELECTRIC REVENUES FROM SALES AT PRESENT
4		AND PROPOSED RATE LEVELS?

Table 1 shows 2021 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 2021 Test Year Revenue (\$ Thousands)

NSPM-Minnesota Electric Jurisdiction

	Present	Proposed	Proposed Increase	Percent Increase
Retail Rate Revenue	\$3,063,950	\$3,468,234	\$404,283	13.19%
+Other Increases	0	1,468	1,468	
Total Rate Revenue	\$3,063,950	\$3,469,802	\$405,752	13.24%
Interdepartmental	693	693		
Total + Interdepartmental	\$3,064,643	\$3,470,394	\$405,752	13.24%

Company witness Mr. Benjamin C. Halama presents the 2021 test year total revenue requirement and deficiency in his Direct Testimony. Present and proposed 2021 test year revenues are based on the application of present and proposed rates to the 2021 test year budgeted sales and customer counts

<sup>\*</sup>Amounts may not total due to rounding.

2		Proposed rates were developed to recover the 2021 test year revenue
3		requirement.
4		
5	Q.	WHAT IS THE BASIS FOR THE RATES USED TO DETERMINE PRESENT REVENUE?
6	Α.	Present rates are the compliance rates from the Investigation into the Effects
7		on Electric and Natural Gas Utility Rates and Services of the 2017 Federal Tax
8		Cuts and Job Act, Docket No. E,G999/CI-17-895, which became effective on
9		June 1, 2019.
10		
11	Q.	Do present and proposed revenue include revenue from the
12		COMPANY'S COST RECOVERY RIDERS?
13	Α.	Yes. Present revenue for test year 2021 includes revenue from the Transmission
14		Cost Recovery (TCR) rider, the Renewable Energy Standard (RES) rider, the
15		Renewable Development Fund (RDF) rider, and the Conservation
16		Improvement Program (CIP) Adjustment rider, for a total of \$231,319,000.
17		Proposed revenue for test year 2021 includes cost recovery rider revenue only
18		from the RDF Rider of \$37,458,000, with the difference in rider revenue of
19		\$193,861,000 moved to proposed base rates.
20		
21	Q.	DO YOU INCLUDE FUEL COSTS WHEN DETERMINING PRESENT AND PROPOSED
22		REVENUE?
23	Α.	Yes, although I also provide schedules that separate out fuel revenues as
24		discussed later in my testimony. As Mr. Halama details in his Direct Testimony,
25		the Company has included fuel expenses at the 2021 annual fuel forecast level
26		filed in the Company's July 31, 2020 Reply Comments in Docket No.
27		E002/AA-20-417 in certain financial schedules. I have included this fuel

supported by Company witness Ms. Jannell E. Marks in her Direct Testimony.

expense forecast in total revenue for rate design elements of the electric rate case filing, including customer class revenue apportionment, certain rate ratios, and customer notices that provide total bill impact information. This rate design approach was based on discussions between the Company and the Department of Commerce, Division of Energy Resources (Department) and described in Company Reply Comments filed September 9, 2019 in Docket No. E999/CI-03-802.

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9 Q. WHAT ARE THE 2022 ELECTRIC REVENUES FROM SALES AT PRESENT AND 10 PROPOSED RATE LEVELS?

11 Table 2 shows 2022 revenues at present and proposed rates for the NSPM-12 Minnesota electric jurisdiction. Proposed 2022 revenues are also presented in 13 Mr. Halama's Direct Testimony.

14

15 Table 2 16 **2022 Plan Year Revenue** (\$ Thousands)

NSPM-Minnesota Electric Jurisdiction

19

20

21

22

17

	Present	Proposed	<b>Increase</b>	
Retail Rate Revenue	\$3,053,147	\$3,555,766	\$502,619	16.46%
+Other Increases	0	1,664	1,664	
Total Rate Revenue	\$3,053,147	\$3,557,430	\$504,283	16.52%
Interdepartmental	687	637		
Total + Interdepartmental	\$3,053,834	\$3,558,117	\$504,283	16.51%

23

24

25 How did you determine present and proposed revenues for 2022? Q.

26 Present revenue for the 2022 plan year is based on 2022 sales and the 2022 cost 27 levels for the TCR, RES, RDF, and CIP Adjustment riders. Proposed 2022 28 revenue is based on the application of proposed 2022 rates to the 2022 plan

<sup>\*</sup>Amounts may not total due to rounding.

year budgeted sales and customer counts supported by Ms. Marks. Proposed rates were developed to recover the 2022 plan year revenue requirement.

A O WHAT ARE

- 4 Q. What are the 2023 electric revenues from sales at present and proposed rate levels?
- A. Table 3 shows 2023 revenues at present and proposed rates for the NSPMMinnesota electric jurisdiction. Proposed 2023 revenues are also presented in
  Mr. Halama's Direct Testimony.

9 10

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# Table 3 2023 Plan Year Revenue (\$ Thousands)

NSPM-Minnesota Electric Jurisdiction

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16

	Present	Proposed	Proposed Increase	
Retail Rate Revenue	\$3,030,677	\$3,626,179	\$595,502	19.65%
+Other Increases	0	1,854	1,854	
Total Rate Revenue	\$3,030,677	\$3,628,033	\$597,356	19.71%
Interdepartmental	686	686		
Total + Interdepartmental	\$3,031,362	\$3,628,718	\$597,356	19.71%

- 20 Q. How did you determine present and proposed revenues for 2023?
- A. Present revenue for the 2023 plan year is based on 2023 sales and the 2023 cost levels for the TCR, RES, RDF, and CIP Adjustment riders. Proposed 2023 revenue is based on the application of proposed 2023 rates to the 2023 plan year budgeted sales and customer counts supported by Ms. Marks. Proposed rates were developed to recover the 2023 plan year revenue requirement.

<sup>1718</sup> 

<sup>\*</sup>Amounts may not total due to rounding.

1	Q.	DO PRESENT AND PROPOSED REVENUES INCLUDE ECONOMIC DEVELOPMENT
2		DISCOUNTS FROM THE BUSINESS INCENTIVE AND SUSTAINABILITY (BIS) RIDER
3		AND THE COMPETITIVE RESPONSE RIDER (CRR)?
4	Α.	Yes. Economic development discounts are included for existing BIS Rider
5		accounts. There are no current CRR accounts, and no CRR discounts are
6		included in forecast revenues. The BIS Rider is a growing economic
7		development program, and additional accounts are in the preliminary stage of
8		development and approval. Recognizing the difficulty in precisely forecasting
9		BIS Rider participation, the Company proposes to update BIS and CRR
10		accounts with current information at the time a final rate compliance filing is
11		prepared.
12		
13	Q.	HAVE YOU PREPARED ANY ADDITIONAL COMPARISONS OF PRESENT AND
14		PROPOSED REVENUES?
15	Α.	Yes. I prepared the following summary and detailed comparisons of present
16		and proposed rate revenues, as required by Minn. R. 7825.4300, parts A and B,
17		and the Commission's June 17, 2013 Order in the multiyear rate plan Docket
18		No. E,G999/M-12-587:
19		Sales and Revenue by Rate Schedule
20		o 2021 Test Year: Exhibit(SVH-1), Schedule 3, page 1 of 3
21		o 2022 Plan Year: Schedule 3, page 2 of 3
22		o 2023 Plan Year: Schedule 3, page 3 of 3
23		Base and Total Revenue by Major Rate Class
24		o 2021 Test Year: Exhibit(SVH-1), Schedule 4, page 1 of 3
25		o 2022 Plan Year: Schedule 4, page 2 of 3
26		o 2023 Plan Year: Schedule 4, page 3 of 3
27		Sales and Revenue by Rate Schedule and Component

1		o 2021 Test Year and 2022 and 2023 plan years: Required
2		Information, Volume 3.
3		
4	Q.	ARE ANY FUEL COSTS INCLUDED IN BASE RATES?
5	Α.	No. All rates and billing quantities are separated into the three categories of
6		base rates, fuel costs, and cost-recovery riders. This is consistent with the rate
7		design presentation in prior Company rate case filings and with the Commission
8		decision in Docket No. E999/CI-03-802. Base rate revenues are considered as
9		total revenue less revenue from fuel cost and cost recovery riders.
10		Exhibit(SVH-1), Schedule 4 itemizes these three categories by customer
11		class.
12		
13	Q.	ARE ALL RIDERS CONSIDERED COST-RECOVERY RIDERS?
14	A.	No. Cost-recovery riders are those riders that are designed to recover specific
15		costs, such as the TCR rider. There are other portions of our tariff that are
16		labeled as "riders" but these are actually rate design tariffs, which for
17		organizational purposes are extensions of the base tariffs for certain customer
18		classes. Several tariffs are classified as riders to indicate a modification to certain
19		terms or conditions of a primary base tariff. For example, the BIS Rider
20		provides temporary discounts to base tariff demand rates for qualifying
21		economic development applications.
22		
23	Q.	Please describe Exhibit(SVH-1), Schedule 5 and Exhibit(SVH-
24		1), Schedule 6.
25	Α.	Schedule 5 compares present base rates to proposed 2021, 2022, and 2023 base
26		rates, both with and without fuel costs. Schedule 6 is a monthly bill comparison

1		of the present and proposed 2021, 2022 and 2023 rates at different usage and
2		load factor levels.
3		III. RATE DESIGN
4		
5		A. Pricing Objectives
6	Q.	DOES THE COMPANY USE PRICING OBJECTIVES TO GUIDE THE DEVELOPMENT
7		OF ITS PROPOSED CLASS REVENUE APPORTIONMENT AND RATE DESIGN?
8	Α.	Yes. The Company has continued to consider and use the following four
9		objectives to develop pricing proposals and establish rates that:
10		1. Produce total annual revenue that matches the corresponding revenue
11		requirement in order to allow the Company a reasonable opportunity to
12		earn its authorized return on investment;
13		2. Accurately reflect the resource costs of providing service and, where
14		appropriate, the market value of the service;
15		3. Provide sufficient flexibility in pricing levels and provisions for our
16		electric service to remain competitive in the broader energy market; and
17		4. Provide reasonable pricing by considering the importance of rate
18		continuity, customer understanding, revenue stability, and administrative
19		practicality.
20		
21	Q.	How does the Company apply these objectives when designing rates?
22	Α.	The first objective is a requirement to precisely match proposed rates to the
23		proposed total revenue requirement. To equitably achieve this objective, and
24		to also provide price incentives for the economically efficient use of energy
25		resources, the rate design process starts by examining and using electric service
26		costs by customer class and rate component. From this objective cost basis, we

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	Α.	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	Α.	Table 4 shows the CCOSS class cost responsibilities and the proposed class
18		apportionment for the test year 2021, and the plan years 2022 and 2023.

consider and balance the remaining objectives according to circumstances to

Table 4

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

NSPM-Minnesota Electric Jurisdiction

	Present	Present Cost			Proposed Revenue		
Class	Revenue	Amount	Increase	Amount	Increase		
TY 2021							
Residential	\$1,217.3	\$1,397.3	14.78%	\$1,387.6	13.99%		
Non-Demand	\$103.0	\$109.1	5.87%	\$112.8	9.53%		
C&I Demand	\$1,716.3	\$1,929.8	12.44%	\$1,936.2	12.82%		
Lighting	\$27.3	\$32.1	17.45%	\$31.5	15.32%		
Total	\$3,064.0	\$3,468.2	13.19%	\$3,468.2	13.19%		
PY 2022							
Residential	\$1,198.0	\$1,435.9	19.86%	\$1,415.5	18.16%		
Non-Demand	\$104.0	\$111.3	7.10%	\$116.2	11.78%		
C&I Demand	\$1,723.9	\$1,975.2	14.58%	\$1,991.4	15.52%		
Lighting	\$27.3	\$33.3	22.01%	\$32.6	19.24%		
Total	\$3,053.1	\$3,555.8	16.46%	\$3,555.8	16.46%		
PY 2023							
Residential	\$1,184.9	\$1,455.9	22.87%	\$1,436.8	21.26%		
Non-Demand	\$103.9	\$113.3	9.01%	\$118.8	14.33%		
C&I Demand	\$1,714.5	\$2,022.4	17.96%	\$2,036.9	18.80%		
Lighting	\$27.4	\$34.6	26.54%	\$33.7	23.09%		
Total	\$3,030.7	\$3,626.2	19.65%	\$3,626.2	19.65%		

<sup>\*</sup>Amounts may not total due to rounding.

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

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

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

A. This measurement defines the relative position between a class increase set at the average retail increase (no movement to cost) and a class increase set directly

at a class cost from the CCOSS (full movement to cost). Using a hypothetical
example of a 10 percent average retail increase and a 16 percent class cost
increase, the potential cost movement range is 6 percent (16 percent less 10
percent). In this example, a proposed 13 percent class increase represents a 50
percent cost movement, calculated as 3 percent (13 percent less 10 percent)
divided by the full 6 percent range.

Q. Can a proposed revenue apportionment be adjusted if a different
 final revenue requirement is approved by the Commission?

A. Yes. The proportional class revenue responsibilities that are represented by a proposed class revenue apportionment at certain total retail increase amount can be applied to another total retail revenue requirement. This proportional factoring approach is reasonable and has been previously used for the Company's compliance filings to accurately maintain a Commission approved class revenue apportionment at a different rate level. This approach can also accommodate revisions to class cost allocations or changes to the percent movements to cost, and also updated sales and revenues.

# C. Decoupling Proposal

- 20 Q. IS THE COMPANY PROPOSING TO CONTINUE A RATE DECOUPLING MECHANISM?
- A. Yes. We are proposing to extend the current 2020 sales true-up mechanism, approved by the Commission earlier this year as part of the Company's True-up Petition,<sup>1</sup> into a permanent decoupling mechanism to true up sales revenue for all non-lighting rate classes. Extending this mechanism is an important tool

to protect customers and the Company from the uncertainties around potential

<sup>&</sup>lt;sup>1</sup> 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		transformative rate design changes, such as more precise three-period time-of-
2		use pricing, as well as align interests in important policy matters, such as
3		conservation measures and expanded demand response options.
4		
5	Q.	PLEASE DESCRIBE HOW THE 2020 SALES TRUE-UP MECHANISM OPERATES.
6	A.	The 2020 sales true-up mechanism is a decoupling mechanism that establishes
7		a rate adjustment to offset annual differences in base rate revenue from the level
8		previously authorized by the Commission, as a result of different sales levels.
9		For 2020, base rate revenue from actual 2020 sales is compared to base rate
10		revenue at the sales level previously authorized by the Commission. This
11		process is also used in rate cases to adjust filed forecast sales to the actual level
12		that occurred for the test year while the case was being heard, and is proposed
13		in this case by Ms. Marks.
14		
15		The base revenue differences are now determined in detail by class cost of
16		service study categories. This means that the Residential class is separately
17		calculated but several C&I rate schedules are combined into the two main
18		categories of relatively small load non-demand (energy-only) customers and
19		demand-billed customers. There are two additional customer categories that
20		are relatively very small in comparison to the Residential and two C&I
21		categories: Metered energy-only street lighting service and non-retail
22		interdepartmental sales to our gas utility.
23		
24		The current mechanism recognizes changes in revenues due to changes in sales
25		without weather-normalization, billing determinants related to sales such as

billed demands, and the number of customers. The 2020 revenue comparison

1	will use the same C&I sales growth as assumed in 2018 and will include any
2	discounts and incentive rates that are approved by the Commission.

3

- 4 Q. AFTER THESE CALCULATIONS ARE COMPLETED, WHAT IS THE NEXT STEP?
- 5 If the actual 2020 base revenues are greater than the 2019 authorized plan year, 6 the difference will be deferred as a regulatory liability and refunded to 7 customers. If the actual 2020 base revenues are lower than the 2019 authorized 8 plan year, the difference will be deferred as a regulatory asset and collected 9 from customers. Refund or surcharge rate factors will be calculated for each 10 applicable customer category based on their deferral amount and the current 11 sales forecast. There is no limit on refund or surcharge levels. Any prior year 12 refund or recovery difference from the prior forecast level used by decoupling 13 or sales true-up mechanisms will be included in current year deferrals. The 14 resulting refund or surcharge rate factors will be applied to customer energy usage effective April 1, 2021 for 12 months. 15

- Q. Is the Company recommending any changes to the 2020 sales true-up
   mechanism in this proceeding?
- A. Yes, we are proposing three changes. First, we propose eliminating the sales growth adjustment that has been used for the C&I class. This component is applicable for sales true-up calculations for 2017 through 2020 to acknowledge that the Company made an adjustment to our revenue deficiency to recognize future forecasted sales growth in the C&I class in the prior multi-year rate plan (MYRP) period of 2016-2019. Since we have not made such an adjustment in this rate case, there is no need for a sales growth adjustment.

1		Second, we propose to exclude the metered lighting category. Metered street
2		lighting service represents only 7 percent of lighting class revenue. Most
3		lighting services have fixed rates per lighting unit that already effectively
4		decouples sales and revenue. Eliminating decoupling for metered lighting is a
5		simplification that would provide consistency and allow the entire lighting
6		category to be exempt from decoupling adjustments.
7		
8		Third, we propose to use the C&I-Demand adjustment factor for
9		interdepartmental sales rather than determining and applying a separate factor
10		specific to the interdepartmental category. This is consistent with base rates
11		used for interdepartmental sales.
12		
13	Q.	ARE THERE ANY OTHER PROPOSED CHANGES THAT COULD BE CONSIDERED IN
14		THIS PROCEEDING?
15	Α.	Yes, another potential change would be for a more general approach that would
16		establish a single deferral determination and adjustment rate factor for the three
17		rate class categories that represent Residential and C&I customers. This would
18		improve equity, reduce adjustment factor amounts on average, and reduce
19		unnecessary complexity. The Company is not making this proposal at this time,
20		but we would be interested in comments from other parties on this approach.
21		
22	Q.	DO THE COMPANY'S PROPOSED TARIFFS INCLUDE THIS UPDATED SALES TRUE-
23		UP MECHANISM?
24	Α.	Yes, proposed test year 2021 rate sheets include a proposed Revenue
25		Decoupling Rider in Sheet No. 5-118.1. Additionally, we would propose to list
26		this rider as excluded from the RES Rider (Sheet No. 5-146), and incorporate

the following language on tariffs for all rate codes to which the rider is applicable:

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# REVENUE DECOUPLING RIDER

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

6 7 8

Tariffs receiving this language are listed in the table below.

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Table 5

Applicable Tariffs for Application of Revenue Decoupling Rider Language

12	Service	Sheet No.
13	Residential	5-1
14	Residential Time of Day	5-2
15	Residential Time of Use Pilot Program	5-4.1
	Residential Electric Vehicle	5-5
16	Residential Electric Vehicle Pilot	5-8
17	Residential Electric Vehicle Subscription Pilot	5-8.2
18	Energy Controlled (Non-Demand Metered)	5-9
19	Limited Off Peak	5-11.1
20	Small General	5-22
21	Small General Time of Day	5-24
22	General Service	5-27
	General Time of Day	5-30
23	Peak Controlled	5-41
24	Peak Controlled Time of Day	5-45
25	Electric Vehicle Fleet Pilot	5-51.1
26	Electric Vehicle Public Charging Pilot	5-52.1
27	Light Rail Line	5-72
28	Small Municipal Pumping	5-85
29	Municipal Pumping	5-87

1	I note	that w	e plan	to	propose	cancellation	of	our	Revenue	Decoup	oling
---	--------	--------	--------	----	---------	--------------	----	-----	---------	--------	-------

2 Mechanism Rider, Sheet Nos. 5-117 and 5-118, as part of our 2020 Sales True-

up annual report due February 1, 2021.

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#### 5 Q. What ongoing decoupling reporting does the Company support?

6 We support the recommendations in the Department's July 1, 2020 Proposed 7 Streamlining for Annual Revenue Decoupling Evaluation Reports for Center 8 Power Energy, Great Plains Natural Gas Company, Minnesota Energy 9 Resources Corporation, and Xcel Energy Electric.<sup>2</sup> As part of these 10 recommendations, Xcel Energy would submit annual decoupling evaluations by 11 April 1 each year, reporting on the measured results for the year and energy 12 savings items as outlined in the Department's July 1, 2020 filing. Consistent 13 with the current sales true-up mechanism, factors would be effective April 1 14 through March 31, subject to refund/adjustment as needed.

15

16

#### D. Other Rate Design Dockets

17 Q. Are there other ongoing rate design dockets?

A. Yes. There are several approved or pending dockets related to rate design that will take advantage of the planned roll-out of Advanced Metering Infrastructure (AMI) meters. These rate designs include three-period time-of-use designs for both Residential and demand-metered C&I customers, new demand response rate options, and several electric vehicle rate designs for both Residential and Commercial customers. As part of the Company's Integrated Distribution Plan (IDP) proceeding, Docket No. E002/M-19-666, on October 1, 2020 the

<sup>&</sup>lt;sup>2</sup> Docket Nos. G008/M-19-558, G004/M-20-335, G011/M-20-332 and E002/M-20-180. Proposed Streamlining for Annual Revenue Decoupling Evaluation Reports for CenterPoint Energy, Great Plains Natural Gas Company, Minnesota Energy Resources Corporation, and Xcel Energy Electric by the Department of Commerce, dated July 1, 2020.

1	Company filed a draft rate design roadmap in compliance with a Commission
2	Order. This road map included a summary of approved advanced rate designs

and those in development.

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

10

11

#### E. Low Income Discount

- Q. Does this rate case filing continue to include the recovery of low
   income program costs through base rates?
- 14 Yes. In compliance with the Commission's September 26, 2014 Order in Docket No. E002/M-04-1956 regarding amended Minn. Stat. § 216B.16, subd. 15 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 Medical 20 Affordability program. Present and proposed revenue includes Base program 21 benefits that are paid as a monthly discount to participating customers, which 22 is offset by matching Base program surcharges per monthly customer bill for a 23 zero net retail revenue impact. This information is included in detailed rate 24 revenue determinations (Sales and Revenue by Rate Schedule and Component, 25 filed in Required Information, Volume 3).

1	Q.	Does	THE	DETAILED	RATE	REVENUE	DETERMINATION	PRESERVE	THE
2		CURRE	NT CL	ASS COST AL	LOCATI	ON FOR PRO	OGRAM FUNDING?		

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

12 Q. How have Base program surcharges been updated for proposed rates?

A. The class allocation of base low income program surcharges was updated to reflect proposed customer charges, using the Commission-approved customer charge weighted allocation methodology established in Docket No. E002/M-10-854. The following table compares present and proposed class Base program surcharges for the 2021 test year.

Table 6
 Base Program Surcharges – TY 2021

 Customer Class
 Present
 Proposed

 Residential
 \$0.58
 \$0.61

 C&I Non-Demand
 \$0.78
 \$0.74

 C&I Demand
 \$2.34
 \$1.67

#### 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.

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- 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
- Residential and small Commercial customers. This proposal is for the following
- 14 rate schedules: Residential Service, Residential Time of Day Service, Small
- General Service, and Small General Time of Day Service. The proposed
- increase is conservative and will maintain the historical relationships between
- fixed and variable rates. By representing a reasonable share of the fixed cost of
- facilities and expenses required to make service available to every customer, this
- 19 proposal provides more accurate and fair pricing to all customers.

- 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
- \$8.74, with present charges ranging from \$8.00 to \$12.00. The proposed
- 25 weighted average customer charge is \$10.24, which is substantially less than the
- 26 2021 test year fixed customer-related cost of \$18.00 per month. This approach
- preserves a substantial and appropriate conservation incentive, in balance with

1		an acknowledgement that accurate cost-based pricing improves customer
2		equity. This balance provides a reasonable limit to the degree that customer
3		bills are above the cost of service for customers that make conservation efforts
4		but have above average energy usage only from circumstances such as a higher
5		number of household members or a reliance on certain electric appliances that
6		more commonly use natural gas.
7		
8	Q.	Is the proposed increase also supported from a marginal cost
9		PERSPECTIVE?
10	Α.	Yes. The Company commissioned a marginal cost study of customer and local
11		distribution costs to provide an additional perspective on the level of customer
12		charges. A summary of the conclusions of this study is provided in
13		Exhibit(SVH-1), Schedule 7. This shows that the marginal customer-related
14		cost for the residential class is \$18.15 per month.
15		
16	Q.	HAVE RESIDENTIAL AND SMALL COMMERCIAL CUSTOMER CHARGES INCREASED
17		IN RECENT YEARS?
18	Α.	No. These customer charges have remained unchanged in the Company's last
19		two general rate cases, meaning the last increase in these classes' customer
20		charges was seven years ago or in 2013. A modest increase in these charges at
21		this time will better reflect current costs and better maintain the historical
22		relationships between fixed and variable rates for these customers.
23		
24	Q.	Has the Company considered establishing a reduced customer
25		CHARGE FOR RESIDENTIAL CUSTOMERS LIVING IN MULTI-FAMILY DWELLINGS?
26	Α.	Yes. This issue has gained some visibility over recent years, although it is still
27		an uncommon rate distinction throughout the country. To gain preliminary

1		insight into exploring whether economies of scale or other factors create a cost
2		differential in customer-related costs by dwelling type that may be significant
3		enough to recognize in customer charges, the Company asked for that
4		distinction in its commissioned marginal cost study.
5		
6	Q.	Does the Company have the capability to identify residential
7		CUSTOMERS BY DWELLING TYPE?
8	Α.	No. This capability would have to be developed in our billing system, including
9		what distinction would separate single and multi-family customers.
10		Additionally, "in-between" situations, such as the handling of duplexes, would
11		have to be resolved. However, using indirect measures such as accounts with
12		apartment numbers, we have estimated that approximately 23 percent of
13		residential main accounts serve apartment customers, which is about 270,000
14		customers.
15		
16	Q.	HAS THE COMPANY COMPLETED ITS OWN COST ANALYSIS TO DETERMINE ANY
17		COST DIFFERENTIAL BETWEEN SINGLE-FAMILY AND MULTI-FAMILY
18		RESIDENTIAL CUSTOMERS?
19	Α.	No. However, as indicated above, the marginal study we commissioned
20		included a dwelling type differential using available preliminary information.
21		This study shows a marginal customer-related cost of \$20.49 per month for
22		single family dwellings and \$10.33 per month for multi-family dwellings, which
23		is a monthly cost differential of \$10.16 per customer. This differential is
24		significant but also greater than current residential customer charge levels for
25		non-electric space heating customers. The Company plans to further study the
26		cost differential to more clearly determine the required justification to establish
27		any rate differential.

1	Q.	WOULD A SEPARATE AND LOWER APARTMENT CUSTOMER CHARGE REQUIRE
2		CHANGES TO THE STANDARD RESIDENTIAL CUSTOMER CHARGE LEVELS?

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

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# Q. WHAT STEPS DOES THE COMPANY RECOMMEND FOR CONTINUING TO EXAMINE THIS IDEA?

17 A. We plan to continue our cost analysis and determine how customer 18 identification and billing changes could be made. We are also interested in 19 learning the perspectives of other parties throughout the rate case proceeding. 20 One concern about establishing a customer charge differential in this 21 proceeding is that the impact of a multi-dwelling rate differential is not included 22 in the typical bill impacts included in customer notices.

23

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#### 2. Residential Service

- Q. Please describe the proposed rate design for Residential Service.
- A. No significant changes are proposed to the rate design for Residential Service.
- 27 The overall 2021 test year proposed increase of 14.00 percent for Residential

1		Service is distributed as a 14.02 percent increase for standard non-heating
2		service and of 13.18 percent increase for electric space heating service,
3		consistent with the cost of service differential.
4		
5		3. Residential Controlled Air Conditioning and Water Heating Rider
6	Q.	PLEASE DESCRIBE THE COMPANY'S PROPOSED REVISIONS TO THE RESIDENTIAL
7		CONTROLLED AIR CONDITIONING AND WATER HEATING RIDER, A DIRECT
8		LOAD CONTROL PROGRAM KNOWN AS SAVER'S SWITCH.
9	Α.	Residential Service customers with central air conditioning have the option of
10		participating in our Saver's Switch program that provides a discount for control
11		of their air conditioner, which is provided through the Residential Controlled
12		Air Conditioning and Water Heating Rider. An additional discount is available
13		to customers with an electric water heater that can also be controlled.
14		
15		The current rate design provides a 15 percent discount on energy and fuel cost
16		charges during the four summer season months for controlled air-conditioning.
17		If participating air-conditioning customers also have an electric water heater, an
18		additional 2 percent discount during every month is available for controlled
19		water heating. This design was established when the base cost of fuel was
20		included in energy rates. When all fuel costs were moved from base energy rates
21		into a separate fuel cost charge in 2007, it became necessary to apply the percent
22		discounts to both energy and fuel charges to retain the same discount amounts,
23		substantially increasing administrative complexity.
24		
25		The discount levels were created when energy rates were significantly lower than
26		today and the cost of new peaking generation was much higher than it is today.
27		As result, the discount amount for program participation is no longer consistent

with the benefits provided by this long-standing demand response option. In addition, in 2017, we began offering an additional residential load control program, AC Rewards, which provides customers the opportunity to install smart thermostats at a discounted cost in their homes and control demand through the thermostat itself with a customer incentive of \$25 per summer.

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

- Q. How do current incentives for the Saver's Switch program compare
   To proposed credits?
- The majority of active Saver's Switch program participants today receive an Α. annual credit less than \$60. For the year 2019, the median annual credit was \$56.59. Although the proposed \$40 annual credit is lower, it is commonly used for comparable direct load control programs across the country and has been successfully used for years in our Colorado jurisdiction. Our higher energy use customers will see a significant drop in their incentive, but these customers may be better served under a different demand response program such as our AC Rewards program that controls air-conditioning load through a smart thermostat and also has the benefit of giving customers more discretion over their controllable load.

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

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

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

- Q. WHAT IS THE EXPECTED IMPACT OF THE PROPOSED CHANGE TO THE INCENTIVE AMOUNT AND STRUCTURE FOR THE SAVER'S SWITCH PROGRAM?
- A. Although we do not anticipate a loss of Saver's Switch customers as a result of this incentive change, the final result is difficult to predict.<sup>3</sup> Some customers

2015.pdf#search=Docket%20No.%20150085-EG).

<sup>&</sup>lt;sup>3</sup> 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: <a href="http://www.floridapsc.com/library/filings/2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165-2015/05165/0516-2015/0516-2015/05165/0516-2015/05165/0516-2015/0516-2015/0516-2015/0516-2015/0516-201

may find it helpful to have a defined fixed credit amount rather than a percentage discount, which may encourage customers who have resisted participation in the past. Customers with lower energy usage will also benefit from the proposed incentive design. Additionally, customers that are no longer interested in participating in Saver's Switch will be offered the option of participating in AC Rewards which includes a discounted smart thermostat.

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#### 4. C&I Demand Class Rate Design

a. Base Energy and Demand Rates

- 10 Q. HOW DID YOU DEVELOP THE PROPOSED ENERGY AND DEMAND RATES FOR THE
  11 C&I DEMAND CLASS?
- 12 A. The primary consideration was maintaining a similar ratio between demand and
  13 energy rates as in present rates to limit rate design changes. This also has the
  14 effect of maintaining similar percent bill increases at all customer load factor
  15 levels, as shown in Schedule 6 for load factors defined at the 200, 400, and 600
  16 hours-use levels.

17

- b. Interruptible Service
- Q. Is the Company proposing an increase in the interruptible service
   Discounts?
- A. Yes. A moderate increase is proposed for interruptible service discounts. This provides proposed increases less than one percent greater than those for firm service customers. The proposed discounts reinstate the levels that were established in rates effective January 2019, which were reduced with other rate components when rates were reduced in June 2019 based on the Federal Tax Cut and Jobs Act. The only exception is the discount for the lowest value service distinction of Tier 2, Performance Factor A. The effective discount for

interruptible service is the difference between firm and controllable demand charges. The proposed increase to the total amount of demand charge discounts is 4.56 percent. The following table compares present and proposed discounts by Tier and Performance Factor (PF) category of interruptible service.

Table 7

Present and Proposed Interruptible Discounts

NSPM-Minnesota Electric Jurisdiction

(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	\$5.62	\$5.00	\$6.12
Increase	\$0.22	\$0.20	\$0.09	\$0.26	\$0.23	\$0.29
Increase %	4.8%	4.9%	3.0%	4.8%	4.8%	5.0%

Q. Is the Company proposing any additions to the Rules for Application
 of Peak Controlled Services tariff?

A. Yes. Two additions are proposed. The first addition is proposed rule no. 4 requiring that customers provide reliable contact information for the purpose of receiving control period notifications. This is an essential requirement that has largely been followed by customers without a formal rule because it is also in their best interest to avoid control failure charges. However, based on recent difficulty with reliably contacting certain customers indicates that a formal rule may be a helpful addition.

The second clarification is proposed rule no. 8 regarding new Company testing requirements that are required by the Midcontinent Independent System

1		Operator (MISO). In their FERC filing in Docket ER19-651, MISO stated the
2		following about testing requirements:
3 4 5 6 7 8 9 10 11 12 13		This proposal, along with the concomitant LMR (Load Modifying Resources) availability filing (Docket ER19-650), is expected to provide MISO's operators with greater certainty regarding the ability of DR (Demand Response) to curtail load during an emergency, by requiring an annual demonstration that may be satisfied by meeting a curtailment instruction or submitting the results of a real power test for such resources prior to qualification in the Planning Resource Auction. MISO believes these enhancements are critical given the increasing operational dependence on LMRs to maintain system reliability and resilience.
14		Real power tests will provide more certainty regarding the level of load relief
15		that will be available during MISO emergency events and the proposed rule will
16		document this requirement.
17		
18		c. Real Time Pricing
19	Q.	DO THE COMPANY'S PROPOSED TARIFFS INCLUDE REAL TIME PRICING (RTP)
20		SERVICE?
21	Α.	No. The Company proposes cancelling the RTP Service tariff, which is more
22		of a complicated time-of-use rate design with pre-established pricing than a pure
23		RTP design based on market conditions. The current RTP design was
24		established in 2004 and has never attracted more than two customers at the
25		same time. Currently, there is one customer with three accounts that began
26		RTP service in mid-2018. This customer was informed in early 2018 of the
27		Company's plan to propose cancellation of RTP service in its next rate case
28		filing.
29		
30	Q.	WHY IS THE COMPANY PROPOSING TO CANCEL RTP SERVICE?

The essential design and rate relationships in the RTP tariff, which have remained unchanged since it was first established 2004, require a comprehensive refresh requiring substantial analysis. This use of resources would not be productive for a tariff that has rarely been used. Cancelling RTP Service would allow more productive use of resources for rate designs with greater potential and appeal to customers, beyond the single customer currently taking RTP service. Examples of tariffs with greater potential include the recently approved Peak Partner Rewards tariff for optional interruptible service, the pending three-period C&I TOU tariff that was filed in January 2020, and an additional interruptible service tariff option planned for filing later this year.

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d. Voltage Discounts

- Q. Is the Company proposing any revisions to the voltage discounts that are a part of the C&I Demand Tariffs?
- 15 A. Yes. Proposed voltage discounts are shown in Exhibit\_\_\_(SVH-1), Schedule 8,
  16 pages 1 through 4. Demand charge voltage discounts were updated based on
  17 current cost levels and energy charge voltage discounts were updated for the
  18 proposed level of base energy and fuel charges.

- 20 e. General Time of Day Service
- Q. Does the Company currently have a Time of Day (TOD) tariff for C&I Demand customers?
- A. Yes. The existing General Time of Day Service tariff is a two-period time-ofuse rate design that was originally established around 1980, using a 12-hour onpeak period of 9 a.m. to 9 p.m. during weekdays. An Energy Charge Credit provision that was later added to the tariff efficiently provides a partial threeperiod TOU price signal by lowering the price of energy that typically occurs in the middle of the 12-hour off-peak period. The interruptible service

1	counterpart to this tariff is the Peak-Controlled Time of Day Service tariff
2	These tariffs are optional to customers with loads under 1,000 kW and required
3	for customers with loads above that level. Relative to the C&I Demand class
4	these tariffs are used by 11 percent of customers and represent 53 percent of
5	the kWh sales.

Q. Does the Company have a pending proposal for a new C&I Demand
 Time of Use (TOU) tariff?

Yes. A new three-period TOU tariff was proposed January 17, 2020 in a miscellaneous filing at the present rate level (Docket No. E002/M-20-86) and is currently being reviewed by the Commission. This tariff was originally filed at the proposed rate level in the Company's November 2019 rate case filing that was later withdrawn. This proposed new tariff is not further addressed in this rate case based on its expected implementation timeline if approved by the Commission. Necessary enabling technology such as AMI, the need to precisely calibrate the rate to be at a consistent rate level with other C&I tariffs and to develop corresponding interruptible service revisions, and time to resolve differing stakeholder positions will extend a practical implementation date beyond the 2023 plan year.

- f. Business Incentive and Sustainability (BIS) Rider Tariff
- 22 Q. CAN YOU PLEASE PROVIDE AN OVERVIEW OF THE BIS RIDER?
- A. The BIS Rider is an economic development incentive that is available to new and existing demand-metered commercial and industrial customers with new or additional load of 350 kW or greater. Enrolled customers receive discounts on their demand-metered rate schedule in years one to five and return to normal charges in year six. The Company proposed the BIS Rider in Docket No.

E002/GR-12-961 to address the need to grow load efficiently to contribute to the overall fixed costs of the system. The BIS Rider requires among other things (1) that prospective customers have an energy audit and participate in our energy efficiency programs to ensure the load growth is efficient and (2) an analysis of the necessary investment to serve a prospective BIS Rider customer to ensure that other customers are not subsidizing an expansion by paying for incremental distribution investments that are not justified by the expected incremental revenues. The BIS Rider tariff permits the Company to seek recovery of the BIS Rider discounts. The final rates compliance filing for our last rate case, Docket No. E002/GR-15-826, included recovery of \$379,000 in BIS Rider discounts associated with qualifying actual year 2016 billed kW. Present revenue for test year 2021 and plan years 2022 and 2023 includes a total BIS Rider discount of \$621,000.

### 15 Q. WHAT ADDITION TO THE BIS RIDER TARIFF IS THE COMPANY PROPOSING?

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

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

1 An incremental and discretionary off-peak base energy rate discount has 2 disproportionate appeal to higher load factor customers such as data centers. 3 This design also minimizes the linkage between new load and increased peak 4 demand, which is a specific interest included in the Commission's March 11, 5 2020 Order in Docket No. E002/GR-12-961. Further, it recognizes the 6 increasing availability of renewable wind generation during the current off-peak 7 hours of 9 P.M. through 9 A.M. This proposal would reduce the average rate 8 per kWh by 0.76¢ per kWh at present rates and by 1.04¢ per kWh at proposed 9 test year 2021 rates. Fuel cost charges would remain with no change.

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

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### 5. Street Lighting

- Q. Does the proposed increase for the lighting class vary by rate schedule to recognize cost differentials by subcategory within the lighting class?
- A. Yes. The proposed percent revenue increases for each lighting rate schedule vary recognize lighting sub-category cost differences in the CCOSS. Street lighting for municipal customers includes the System and Energy service cost categories. System service is full service lighting that includes the lighting system, energy, maintenance and repairs. The Energy-only category includes

1		the flat rate Street Lighting Energy Service (Closed) rate schedule and the Street
2		Lighting Energy Service – Metered rate schedule. Protective lighting service is
3		full service security lighting that is available for Residential and Commercial
4		customers. The proposed total lighting class increase is 15.3 percent for test
5		year 2021. The higher relative cost increase indicated by the CCOSS for System
6		service was moderated to a proposed increase of 16.9 percent. The
7		corresponding proposed lighting increases are 15.0 percent for Protective
8		lighting and 9.5 percent for the Energy-only lighting category.
9		
10	Q.	WHAT BENEFITS HAVE BEEN EXPERIENCED FROM THE COMPANY'S PROGRAM
11		TO CONVERT OLDER TECHNOLOGY LIGHTING FIXTURES TO LIGHT EMITTING
12		DIODE (LED) TECHNOLOGY, FOR COMPANY-OWNED LIGHTING PROVIDED
13		THOUGH THE STREET LIGHTING SYSTEM SERVICE TARIFF?
14	Α.	The Company has completed its mass conversion program to replace High
15		Pressure Sodium (HPS) fixtures with much more energy efficient LED fixtures,
16		which has reduced energy usage for this lighting by over 50 percent. This
17		directly reduces fuel costs, with an estimated annual savings of over \$600,000,
18		as detailed in Exhibit(SVH-1), Schedule 9. The new LED fixtures have also
19		reduced lighting outages by 88 percent, as discussed in the Direct Testimony of
20		Company witness Ms. Kelly A. Bloch.
21		
22	Q.	HAS THE REDUCED COST FROM THE LOWER ENERGY USAGE OF THESE LED
23		FIXTURES BEEN RECOGNIZED?
24	Α.	Yes. Lower LED energy usage also provides the benefit of reducing lighting
25		costs through lower class demand and energy allocations. This is recognized in
26		the CCOSS sponsored by Mr. Peppin. The estimated lighting cost reductions

1		for the test year 2021 are \$1,523,000 in energy-related costs and \$897,000 in
2		demand-related costs from the LED fixture conversion program.
3		
4		6. Fuel Clause Rider
5	Q.	HAS THE PROPOSED FUEL CLAUSE RIDER BEEN UPDATED FOR THE TEST YEAR
6		2021?
7	Α.	Yes. The Fuel Adjustment Factor section of the Fuel Clause Rider was updated
8		to be consistent with test year 2021 information. The Fuel Adjustment Factor
9		Ratios by Service Category were updated to test year 2021 based on
10		corresponding updates to Class Cost Ratios and TOD Ratios. These updates
11		were determined using the method approved by the Commission in the
12		Company's previous rate cases. The development of these updates is shown in
13		Exhibit(SVH-1), Schedule 10.
14		
15		G. Development of 2022 and 2023 Rates
16	Q.	Do the 2022 and 2023 rates share a common rate design?
17	Α.	Yes. The proposed rate design for plan years 2022 and 2023 is consistent with
18		the rate design for test year 2021.
19		
20		IV. CONCLUSION
21		
22	Q.	PLEASE SUMMARIZE YOUR TESTIMONY.
23	Α.	The Company's proposed class revenue apportionment and rate design is
24		reasonable. It serves our pricing objectives that include cost-based pricing and
25		moderation in rate changes.
26		
27	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
28	Α.	Yes, it does.

#### Statement of Qualifications and Experience

#### Steven V. Huso

Steve Huso is a Pricing Consultant with Xcel Energy, specializing in rate design and revenue forecasting for the utility operating subsidiaries of Xcel Energy.

Huso has 40 years of electric rate design experience and has sponsored rate design testimony in proceedings before state regulatory commissions in Minnesota, North Dakota, South Dakota, Wisconsin, and Colorado.

Huso has presented several papers on rate design and has a published book chapter on real time pricing rate design (ISBN: 0792378396). In 1999, he presented a series on industrial rate design at Taiwan Power Company. In 2018, he evaluated time of use pricing in Kenya as part of a National Association of Regulatory Utility Commissioners partnership exchange.

Huso received Bachelor of Arts degrees in Mathematics and Economics from St. Olaf College and a Master of Business Administration degree from the University of St. Thomas.

# Minnesota Electric Rate Book - MPUC No. 2 2021 Proposed Tariff Sheets

Sheet No. 1-2, revision 11	Sheet No. 5-10.1, revision 5 *
Sheet No. 1-3, revision 18	Sheet No. 5-11, revision 34
Sheet No. 1-4, revision 18	Sheet No. 5-11.1, revision 8 *
	Sheet No. 5-12, revision 9 *
Sheet No. 3-1, revision 7 *	Sheet No. 5-13, revision 8 *
Sheet No. 3-1.1, revision 6*	Sheet No. 5-14, revision 25
Sheet No. 3-2, revision 7 *	Sheet No. 5-15, revision 11 *
Sheet No. 3-2.1, revision 6 *	Sheet No. 5-21, revision 32
Sheet No. 3-3, revision 7	Sheet No. 5-22, revision 9
Sheet No. 3-3.1, revision 6 *	Sheet No. 5-23, revision 32
Sheet No. 3-4, revision 7 *	Sheet No. 5-24, revision 14 *
Sheet No. 3-4.1, revision 6 *	Sheet No. 5-24.1, revision 13
Sheet No. 3-5, revision 7*	Sheet No. 5-26, revision 32
Sheet No. 3-5.1, revision 6	Sheet No. 5-27, revision 8*
Sheet No. 3-6, revision 7	Sheet No. 5-28, revision 7 *
Sheet No. 3-6.1, revision 6 *	Sheet No. 5-28.1, revision 5 *
Sheet No. 3-7, revision 7	Sheet No. 5-29, revision 28
Sheet No. 3-7.1, revision 5 *	Sheet No. 5-30, revision 15*
Sheet No. 3-8, revision 7	Sheet No. 5-31, revision 8 *
	Sheet No. 5-32, revision 6 *
Sheet No. 5-TOC-1, revision 14	Sheet No. 5-32.1, revision 5 *
Sheet No. 5-1, revision 32	Sheet No. 5-40, revision 23
Sheet No. 5-1.1, revision 9 *	Sheet No. 5-41, revision 18*
Sheet No. 5-2, revision 32	Sheet No. 5-42, revision 6 *
Sheet No. 5-3, revision 12 *	Sheet No. 5-43, revision 6 *
Sheet No. 5-4, revision 6 *	Sheet No. 5-44, revision 18
Sheet No. 5-4.1, revision 2	Sheet No. 5-45, revision 26
Sheet No. 5-4.2, original *	Sheet No. 5-46, revision 12*
Sheet No. 5-4.3, original *	Sheet No. 5-47, revision 7 *
Sheet No. 5-5, revision 20	Sheet No. 5-47.1, revision 6 *
Sheet No. 5-6, revision 17	Sheet No. 5-48, revision 8
Sheet No. 5-8, revision 3 *	Sheet No. 5-49, revision 7
Sheet No. 5-8.1, original *	Sheet No. 5-50, revision 7
Sheet No. 5-8.2, revision 1	Sheet No. 5-51, revision 10 *
Sheet No. 5-8.3, original *	Sheet No. 5-51.1, original *
Sheet No. 5-9, revision 31	Sheet No. 5-52, revision 10*
Sheet No. 5-10, revision 8 *	Sheet No. 5-52.1, original *

<sup>\* =</sup> No substantive changes to sheet but included to provide complete tariff.

# Minnesota Electric Rate Book - MPUC No. 2 2021 Proposed Tariff Sheets

Sheet No. 5-52.2, original *	Sheet No. 5-93.3, revision 20*
Sheet No. 5-52.3, original *	Sheet No. 5-93.4, revision 23 *
Sheet No. 5-64, revision 12	Sheet No. 5-93.5, revision 18 *
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 7*	Sheet No. 5-93.12, revision 11
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 31	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
Sheet No. 5-91, revision 31	Sheet No. 5-109, revision 15 *
Sheet No. 5-91.1, revision 17 *	Sheet No. 5-110, revision 8 *
Sheet No. 5-91.2, revision 11 *	Sheet No. 5-111, revision 7 *
Sheet No. 5-91.3, revision 18	Sheet No. 5-112, revision 8 *
Sheet No. 5-92, revision 21	Sheet No. 5-113, revision 8 *
Sheet No. 5-92.1, revision 8	Sheet No. 5-114, revision 7 *
Sheet No. 5-93, revision 8 *	Sheet No. 5-115, revision 14
Sheet No. 5-93.1, revision 27*	Sheet No. 5-116, revision 8*
Sheet No. 5-93.1a, revision 11 *	Sheet No. 5-116.1, revision 5 *
Sheet No. 5-93.2, revision 21*	Sheet No. 5-117, revision 6

<sup>\* =</sup> No substantive changes to sheet but included to provide complete tariff.

# Minnesota Electric Rate Book - MPUC No. 2 2021 Proposed Tariff Sheets

Sheet No. 5-118, revision 4 Sheet No. 5-118.1, original Sheet No. 5-119, revision 5 \* Sheet No. 5-120, revision 5 \* Sheet No. 5-121, revision 5 \* Sheet No. 5-122, revision 6 \* Sheet No. 5-123, revision 7\* Sheet No. 5-124, revision 6\* Sheet No. 5-125, revision 6 Sheet No. 5-126, revision 11 \* Sheet No. 5-131, revision 7 \* Sheet No. 5-132, revision 6 \* Sheet No. 5-133, revision 6 \* Sheet No. 5-134, revision 7 \* Sheet No. 5-134.1, revision 6 \* Sheet No. 5-135, revision 5 \* Sheet No. 5-136, revision 8 \* Sheet No. 5-136.1, revision 7 \* Sheet No. 5-137, revision 12 \* Sheet No. 5-138, revision 5 \* Sheet No. 5-139, revision 4 Sheet No. 5-140, revision 4 Sheet No. 5-141, revision 4 Sheet No. 5-142, revision 15 \* Sheet No. 5-143, revision 22 \* Sheet No. 5-144, revision 15 \* Sheet No. 5-145, revision 5 \*

Sheet No. 5-146, revision 10 \*

Sheet No. 5-147, revision 14 \* Sheet No. 5-149, original \* Sheet No. 5-150, revision 5 \* Sheet No. 5-151, revision 1 \* Sheet No. 5-152, revision 1 \* Sheet No. 5-153, original \* Sheet No. 5-154, original \* Sheet No. 5-155, original \* Sheet No. 5-156, original \* Sheet No. 5-157, original \* Sheet No. 5-158, original \* Sheet No. 5-158, original \*

Sheet No. 6-14, revision 5
Sheet No. 6-14.1, revision 2
Sheet No. 6-17.3, revision 1
Sheet No. 6-23, revision 3
Sheet No. 6-24, revision 3
Sheet No. 6-27, revision 3
Sheet No. 6-28, revision 2
Sheet No. 6-28-1, original
Sheet No. 6-35, revision 2
Sheet No. 7-42, revision 2
Sheet No. 7-43, revision 2
Sheet No. 7-TOC-1, revision 14
Sheet No. 10-75, revision 3

<sup>\* =</sup> No substantive changes to sheet but included to provide complete tariff.

<u>Tariff</u>	Sheet No.	Rate Code	<u>Changes</u>
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	3-1 through		Various service area updates.
Service Area	3-8		The state of the s
Section 5-Table of	5-TOC-1,		1. Deleted "Real Time Pricing".
Contents	5-TOC-2		2. Added "Revenue Decoupling Rider".
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, 5-6	A08	<ol> <li>Rate changes.</li> <li>Deleted obsolete language.</li> </ol>
Residential Electric Vehicle Pilot Service	5-7, 5-8.2	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	Rate changes.
Small General Service	5-21, 5-22	A09, A10, A11, A13	<ol> <li>Rate changes.</li> <li>Changed language in Revenue Decoupling Mechanism Rider paragraph.</li> </ol>
Small General Time of Day Service	5-23, 5-24.1	A12, A16, A18, A22	Rate changes.

<u>Tariff</u>	Sheet No.	Rate Code	<u>Changes</u>
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.
Rules for Application of Peak Controlled Services	5-48, 5-49, 5-50		<ol> <li>Added two rules.</li> <li>Renumbered 5-49, 5-50.</li> </ol>
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	Rate changes.
Municipal Pumping Service	5-87	A41	Rate changes.
Fire and Civil Defense Siren Service	5-89	A42	Rate changes.
Fuel Clause Rider	5-91, 5-91.3		<ol> <li>Updated ratios.</li> <li>Added "Electric Vehicle Fleet Pilot (A87, A88, A89)" and "Electric Vehicle Public Charging Pilot (A90)"</li> <li>Deleted "Real Time Pricing (A62, A63).</li> </ol>

<u>Tariff</u>	Sheet No.	Rate Code	Changes
Conservation	5-92.1		Rate changes.
Improvement			
Program Adjustment			
Rider			
Residential	5-97, 5-98		Change to rate structure.
Controlled Air			
Conditioning and			
Water Heating Rider			
Standby Service Rider	5-101,		Rate changes.
Supplemental	5-108,		Rate changes.
Generation Service	3 100,		reace changes.
Rider			
Tier 1 Energy	5-115	A27	Rate changes.
Controlled Service	3 113	1127	reace changes.
Rider			
Revenue Decoupling	5-118.1, 5-		New rider.
Mechanism-Demand	118.2		
Rider			
Photovoltaic	5-125	A85, A86	Customer Charge change
Demand Credit		,	0 0
Rider			
Business Incentive	5-139, 5-		1. Relocated text.
and Sustainability	140, 5-141,		2. Added off-peak energy charge
Rider	5-141.1		discount
General Rules and	6-14		1. Updated payment options.
Regulations			2. Language change to reflect future
			AMI meters.
General Rules and	6-14.1		Clarified language.
Regulations			
General Rules and	6-17.3		Corrected reference letter.
Regulations			
General Rules and	6-23, 6-24		Rate changes.
Regulations			
General Rules and	6-27		Update to the definition of
Regulations	(20 (20)		"Municipality"
General Rules and	6-28, 6-28.1		1. Updated definitions under Special
Regulations			Facilities.
			2. Relocated 'D. Underground Facilities
			Requirements' to new sheet 6-28.1.
			3. Added sheet 6-28.1 to fit additional
Conomal Dulas and	6.25		language.
General Rules and	6-35		Clarified language.
Regulations			

<u>Tariff</u>	Sheet No.	Rate Code	<u>Changes</u>
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 2022 Proposed Tariff Sheets

These sheets only contain rate changes proposed for year 2022

- 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, revision 6
- Sheet No. 5-8.2, revision 1
- 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 23
- Sheet No. 5-44, revision 18
- Sheet No. 5-45, revision 26
- 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 5

<u>Tariff</u>	Sheet No.	Rate Code	<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	5-4.1	A72, A74	Rate changes.
Service Residential Electric	5-5	A08	Rate changes.
Vehicle Service Residential Electric	5-7, 5-8.2	A81, A82, A83	Rate changes.
Vehicle Pilot Service	r		Ü
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	Rate changes.
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.
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 – City of St. Paul	5-80	A37	Rate changes.
Small Municipal Pumping Service	5-85	A40	Rate changes.

<u>Tariff</u>	Sheet No.	Rate Code	<u>Changes</u>
Municipal Pumping	5-87	A41	Rate changes.
Service			
Fire and Civil	5-89	A42	Rate changes.
Defense Siren			
Service			
Standby Service	5-101		Rate changes.
Rider			
Supplemental	5-108		Rate changes.
Generation Service			
Rider			
Tier 1 Energy	5-115	A27	Rate changes.
Controlled Service			
Rider			
Photovoltaic	5-125	A85, A86	Rate change.
Demand Credit			
Rider			

# 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, revision 6
- Sheet No. 5-8.2, revision 1
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- Sheet No. 5-11, revision 34
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- Sheet No. 5-78, revision 30
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- 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 5

<u>Tariff</u>	Sheet No.	Rate Code	<u>Changes</u>
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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	Rate changes.
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.
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<u>Tariff</u>	Sheet No.	Rate Code	<u>Changes</u>
Municipal Pumping	5-87	A41	Rate changes.
Service			
Fire and Civil	5-89	A42	Rate changes.
Defense Siren			
Service			
Standby Service	5-101		Rate changes.
Rider			
Supplemental	5-108		Rate changes.
Generation Service			
Rider			
Tier 1 Energy	5-115	A27	Rate changes.
Controlled Service			
Rider			
Photovoltaic	5-125	A85, A86	Rate change.
Demand Credit			
Rider			

#### Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 3 Page 1 of 3

				Revenues (\$1,000s)								
Service Schedule	Average MWH Sales		Sum		Winter		Annual		Increase			
	Customers	Summer	Winter	Annual	Present	Proposed	Present	Proposed	Present	Proposed	Amount	Percent
<u>Residential</u>												
Residential	1,170,990	3,244,162	5,296,832	8,540,994	478,286	552,381	726,014	820,531	1,204,300	1,372,912	168,612	14.00%
Residential TOD	771	2,687	5,867	8,555	394	439	707	788	1,101	1,227	126	11.43%
Residential EV	1,270	17,607	34,476	52,083	3,006	3,389	4,969	5,630	7,975	9,019		13.09%
Load Management	3,561	9,664	35,593	45,257	946	1,064	3,000	3,395	3,946	4,459		13.00%
Res Total	1,176,591	3,274,121	5,372,768	8,646,889	482,632	557,272	734,690	830,344	1,217,322	1,387,617	170,295	13.99%
C&I - Non-Demand												
Small General	74,096	233,506	463,993	697,499	33,459	36,670	58,693	64,243	92,152	100,914	8,761	9.51%
Small General TOD	10,935	23,370	53,185	76,555	3,216	3,530	6,366	6,984	9,582	10,514		9.73%
Load Management	194	574	3,164	3,738	67	75		330	363	405		11.48%
C&I N-D Total	85,226	257,450	520,341	777,792	36,743	40,275	65,354	71,558	102,097	111,833	9,736	9.54%
C&I - Demand												
General	41,661	2,587,265	4,617,468	7,204,733	301,822	338,743	477,000	537,680	778,822	876,423	97,601	12.53%
General TOD	4,721	2,485,517	4,398,113	6,883,630	234,825	264,266	371,228	419,468	606,053	683,734	77,681	12.82%
Light Rail	16	6,768	16,004	22,772	695	785	1,516	1,719	2,211	2,504	293	13.26%
Peak-Controlled	1,366	373,732	704,888	1,078,620	41,009	46,406	71,001	80,566	112,010	126,972	14,962	13.36%
Peak-Controlled TOD	339	825,265	1,490,149	2,315,413	70,703	80,218	121,227	137,797	191,930	218,015		13.59%
Energy-Controlled	13	83,109	159,058	242,167	5,668	6,452	10,591	12,039	16,259	18,491	2,232	13.73%
Real Time Pricing	3	7,426	14,973	22,399	722	800	,	1,449	1,978	2,248.8		13.68%
C&I Dmd Total	48,119	•	• •		655,444	737,669	1,053,820		1,709,264	1,928,388	,	12.82%
C&I Total	133,345	6,626,532	11,920,994	18,547,526	692,187	777,945	1,119,174	1,262,276	1,811,361	2,040,220	228,859	12.63%
Public Authorities												
Small Mun Pumping	896	2,057	4,358	6,415	312	341	569	623	880	964		9.56%
Municipal Pumping	579	23,248	33,133	56,381	3,048	3,408	3,960	4,452	7,007	7,860		12.17%
Siren Service	0	0	0	0	12	12	23	25	35	37		6.58%
PA Total	1,475	25,305	37,491	62,796	3,371	3,762	4,551	5,099	7,922	8,862	940	11.86%
<u>Lighting</u>												
System Service	0	7,390	24,877	32,267	5,973	7,013	12,220	14,260	18,193	21,273		16.93%
Energy	0	5,712	19,228	24,940	609	685	1,430	1,552	2,040	2,237	197	9.68%
Metered Energy	2,824	8,060	27,133	35,192	641	701	2,080	2,274	2,721	2,975		9.35%
Protective Lighting	0	7,261	20,621	27,882	1,409	1,636	2,983	3,414	4,392	5,050		14.97%
Lighting Total	2,824	28,422	91,859	120,281	8,632	10,035	18,714	21,500	27,345	31,535	4,190	15.32%
Total Retail	1,314,234	9,954,380	17,423,112	27,377,491	1,186,821	1,349,014	1,877,129	2,119,219	3,063,950	3,468,234	404,283	13.19%
Other Rev Increase					0	462	0	924	0	1,386	1,386	
Interdept. Increase					0	40	0	42	0	82	82	
Total Revenue	1,314,234		17,423,112					2,120,185	3,063,950		•	13.24%
Interdept Present	5	3,028	3,530	6,558	328	328	365	365	693	693	0	
Retail + ID	1,314,239	9,957,408	17,426,641	27,384,049	1,187,149	1,349,844	1,877,493	2,120,550	3,064,643	3,470,394	405,752	13.24%

#### Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 3 Page 2 of 3

					,				(\$1,000s)	(\$1,000s)			
Service Schedule	Average		MWH Sales		Sum			nter	Ann		Incr	ease	
	Customers	Summer	Winter	Annual	Present	Proposed	Present	Proposed	Present	Proposed	Amount	Percent	
<u>Residential</u>													
Residential	1,180,006	3,203,821	5,230,857	8,434,678	470,503	562,825	714,119	837,090	1,184,622	1,399,916	215,294	18.17%	
Residential TOD	777	2,658	5,810	8,468	388	447	696	804	1,084	1,250	166	15.32%	
Residential EV	1,651	22,167	43,271	65,438	3,107	3,592	5,240	6,097	8,348	9,689	1,341	16.06%	
Load Management	3,627	9,682	35,754	45,436		1,112	2,986	3,571	3,927	4,684	757	19.28%	
Res Total	1,186,060	3,238,327	5,315,692	8,554,019	474,940	567,977	723,041	847,562	1,197,981	1,415,538	217,558	18.16%	
C&I - Non-Demand													
Small General	74,154	238,342	471,261	709,603	33,911	37,934	59,124	66,038	93,035	103,972	10,937	11.76%	
Small General TOD	10,944	23,877	54,039	77,916		3,645	6,409	7,170	9,666	10,815	1,149	11.88%	
Load Management	194	586	3,226	3,812	68	78	299	347	367	425	58	15.95%	
C&I N-D Total	85,292	262,805	528,526	791,331	37,236	41,656	65,831	73,556	103,068	115,212	12,144	11.78%	
C&I - Demand													
General	41,693		4,685,109	7,325,254	305,735	350,813	479,917	554,258	785,652	905,071	119,419	15.20%	
General TOD	4,723	2,515,641	4,433,855	6,949,496		271,353	370,500	428,782	606,394	700,135	93,741	15.46%	
Light Rail	16	6,910	16,268	23,178		814	1,527	1,778	2,231	2,592	361	16.18%	
Peak-Controlled	1,367	381,046	714,752	1,095,798		48,112	71,376	83,120	112,839	131,232	18,392	16.30%	
Peak-Controlled TOD	339	833,243	1,501,581	2,334,824	70,727	82,242	120,967	141,041	191,694	223,283	31,589	16.48%	
Energy-Controlled	13	84,165	160,802	244,967	5,682	6,637	10,595	12,360	16,277	18,997	2,720	16.71%	
Real Time Pricing	3	7,475	15,061	22,536	721	817	1,252	1,480	1,973	2,297.4	325	16.47%	
C&I Dmd Total	48,155	6,468,626	11,527,428	17,996,054	660,926	760,789	1,056,135	1,222,819	1,717,060	1,983,608	266,548	15.52%	
C&I Total	133,446	6,731,431	12,055,954	18,787,385	698,162	802,445	1,121,966	1,296,375	1,820,128	2,098,820	278,692	15.31%	
<b>Public Authorities</b>													
Small Mun Pumping	899	2,029	4,229	6,258	306	342	551	615	857	958	101	11.74%	
Municipal Pumping	580		32,228	55,206		3,422	3,827	4,410	6,821	7,831	1,010	14.81%	
Siren Service	0		0	0	•=	12	23		35	37	2	6.58%	
PA Total	1,478	25,007	36,457	61,464	3,312	3,776	4,401	5,050	7,713	8,826	1,113	14.43%	
<u>Lighting</u>													
System Service	0	7,419	24,848	32,267	5,968	7,233	12,202	14,696	18,170	21,929	3,759	20.69%	
Energy	0	5,735	19,205	24,940		698	1,417	1,573	2,022	2,271	249	12.30%	
Metered Energy	2,824	8,275	27,712	35,987	651	730	2,103	2,361	2,753	3,091	337	12.25%	
Protective Lighting	0	7,354	20,779	28,133	1,406	1,717	2,973	3,574	4,379	5,291	911	20.81%	
Lighting Total	2,824	28,783	92,544	121,327	8,631	10,378	18,694	22,204	27,326	32,582	5,256	19.24%	
Total Retail	1,323,808	10,023,548	17,500,647	27,524,195	1,185,044	1,384,575	1,868,103	2,171,191	3,053,147	3,555,766	502,619	16.46%	
Other Rev Increase					0	521	0	1,042	0	1,564	1,564		
Interdept. Increase					0	49	0	51	0	100	100		
Total Revenue	1,323,808	10,023,548						2,172,285	3,053,147		504,283	16.52%	
Interdept Present	5	3,028	3,530	6,558	325	325	362	362	687	687	0		
Retail + ID	1,323,813	10,026,577	17,504,176	27,530,753	1,185,370	1,385,471	1,868,464	2,172,646	3,053,834	3,558,117	504,283	16.51%	

#### Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 3 Page 3 of 3

					Revenues (\$1,000s)							
Service Schedule	Average		MWH Sales		Sum			nter	Ann			ease
	Customers	Summer	Winter	Annual	Present	Proposed	Present	Proposed	Present	Proposed	Amount	Percent
<u>Residential</u>												
Residential	1,188,904	3,155,372	5,155,047	8,310,418	463,631	569,297	704,185	847,974	1,167,816	1,417,271	249,455	21.36%
Residential TOD	784	2,622	5,744	8,366	383	452	688	813	1,071	1,265	194	18.13%
Residential EV	2,032	32,598	61,975	94,573	4,566	5,428	7,497	8,986	12,063	14,414		19.49%
Load Management	3,691	9,690	35,858	45,547	941	1,143	2,988	3,679	3,929	4,822	893	22.73%
Res Total	1,195,411	3,200,282	5,258,623	8,458,905	469,522	576,319	715,357	861,453	1,184,879	1,437,772	252,893	21.34%
C&I - Non-Demand												
Small General	74,917	238,666	471,065	709,731	33,940	38,896	59,056	67,645	92,996	106,541	13,545	14.57%
Small General TOD	11,056	23,909	54,016	77,925	3,261	3,722	6,402	7,317	9,663	11,039		14.24%
Load Management	196	587	3,225	3,812	68	80		354	366	434		18.47%
C&I N-D Total	86,169	263,162	528,306	791,468	37,269	42,699	65,756	75,316	103,025	118,014	14,989	14.55%
C&I - Demand												
General	42,121	2,642,740	4,681,329	7,324,069	305,383	359,520	478,454	568,438	783,837	927,957	144,120	18.39%
General TOD	4,768	2,511,884	4,411,486	6,923,370	235,637	277,945	367,713	437,471	603,350		112,066	18.57%
Light Rail	16	6,919	16,261	23,180		837	1,523	1,829	2,226	2,666		19.77%
Peak-Controlled	1,381	381,375	714,216	1,095,591	41,388	49,441	71,137	85,375	112,525	134,816	· ·	19.81%
Peak-Controlled TOD	341	821,044	1,478,153	2,299,198	69,521	83,152	118,769	142,587	188,290	225,740		19.89%
Energy-Controlled	13	81,740	155,979	237,719	,	6,595	10,206	12,253	15,691	18,848		20.12%
Real Time Pricing	3	7,337	14,777	22,114	706	822	1,225	1,491	1,931	2,312.9	382	19.77%
C&I Dmd Total	48,643	6,453,039	11,472,201	17,925,240	658,824	778,312	1,049,027	1,249,444	1,707,851	2,027,756	319,905	18.73%
C&I Total	134,812	6,716,201	12,000,507	18,716,708	696,093	821,010	1,114,783	1,324,760	1,810,876	2,145,770	334,894	18.49%
Public Authorities												
Small Mun Pumping	899	1,986	4,160	6,145		343	542	621	842			14.42%
Municipal Pumping	580	22,449	31,811	54,260		3,424	3,771	4,473	6,692	7,897	1,204	18.00%
Siren Service	0	0	0	0	• -	13	23	26	35			10.53%
PA Total	1,479	24,434	35,971	60,405	3,232	3,780	4,337	5,119	7,569	8,899	1,330	17.57%
<u>Lighting</u>												
System Service	0	7,445	24,822	32,267	5,968	7,475	12,196	15,180	18,164			24.73%
Energy	0	5,754	19,185	24,940		717	1,412	1,611	2,017	2,328		15.38%
Metered Energy	2,824	8,477	28,262	36,739	663	765	2,137	2,469	2,800	3,235		15.52%
Protective Lighting	0	7,336	20,700	28,035	1,404	1,792	2,967	3,724	4,371	5,516		26.19%
Lighting Total	2,824	29,012	92,969	121,981	8,641	10,750	18,712	22,984	27,353	33,734	6,381	23.33%
Total Retail	1,334,526	9,969,930	17,388,070	27,358,000	1,177,488	1,411,859	1,853,188	2,214,315	3,030,677	3,626,174	595,498	19.65%
Other Rev Increase					0	579	0	1,158	0	1,737	1,737	
Interdept. Increase					0	59	0	62	0	121	121	
Total Revenue	1,334,526	9,969,930	17,388,070	27,358,000	1,177,488	1,412,497	1,853,188	2,215,536	3,030,677	3,628,033	597,356	19.71%
Interdept Present	5	3,028	3,530	6,558	325	325	361	361	686	686	0	
Retail + ID	1,334,531	9,972,958	17,391,600	27,364,557	1,177,813	1,412,822	1,853,549	2,215,897	3,031,362	3,628,719	597,356	19.71%

		Revenues (\$1,000s)									
	Tota	al	Bas	е	Fu	el	Rid	er			
	Present	Proposed	Present	Proposed	Present	Proposed	Present	Proposed			
Residential Regular Res Space Heating	1,172,291 46,195	1,336,642 52,286	865,498 31,495	1,096,150 40,828	230,724 10,979	229,207 10,906	76,068 3,721	11,285 552			
Total Residential	1,218,485	1,388,928	896,994	1,136,978	241,702	240,114	79,789	11,837			
Small Comm. & Ind. Large Comm. & Ind.	1,232,632 581,957	1,385,469 658,490	816,079 344,007	1,049,993 462,859	318,776 185,347	319,486 186,220	97,777 52,603	15,989 9,411			
Total Comm. & Ind.	1,814,590	2,043,959	1,160,086	1,512,852	504,124	505,707	150,380	25,400			
Street Lighting Public Authorities	22,953 7,922	26,485 8,862	20,444 5,602	24,338 7,053	2,018 1,721	2,020 1,723	492 600	126 86			
Total Retail	3,063,950	3,468,234	2,083,125	2,681,221	749,564	749,564	231,261	37,449			
Other Revenues Incr. Interdept Rev Incr		1,386 82		1,386 130		1		-49			
Retail + Increases	3,063,950	3,469,702	2,083,125	2,682,737	749,564	749,564	231,261	37,400			
Interdept Present Rev.	693	693	456	456	179	179	57	57			
Retail + Interdept	3,064,643	3,470,394	2,083,581	2,683,193	749,743	749,743	231,319	37,458			

				Revenue Ir	ncrease			
	Tota	al	Bas	е	Fu	el	Rid	er
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Residential Regular	164,351	14.02%	230,651	26.65%	-1,516	-0.66%	-64,784	-85.2%
Res Space Heating	6,092	13.19%	9,333	29.63%	-72	-0.66%	-3,169	-85.2%
Total Residential	170,443	13.99%	239,984	26.75%	-1,589	-0.66%	-67,953	-85.2%
Small Comm. & Ind.	152,837	12.40%	233,914	28.66%	710	0.22%	-81,787	-83.6%
Large Comm. & Ind. Total Comm. & Ind.	76,532 229,369	13.15% 12.64%	118,852 352,766	34.55% 30.41%	873 1,583	0.47% 0.31%	-43,192 -124,980	-82.1% -83.1%
Street Lighting Public Authorities	3,532 940	15.39% 11.86%	3,895 1,451	19.05% 25.91%	3 2	0.14% 0.12%	-365 -514	-74.3% -85.7%
Total Retail	404,283	13.19%	598,096	28.71%	-1	0.00%	-193,812	-83.8%
Other Revenues Incr. Interdept Rev Incr	1,386 82		1,386 130		0 1		0 -49	
Retail + Increases	405,752	13.24%	599,612	28.78%	0	0.00%	-193,861	-83.8%
Interdept Present Rev.	0	0.00%	0	0.00%	0	0.00%	0	0.0%
Retail + Interdept	405,752	13.24%	599,612	28.78%	0	0.00%	-193,861	-83.8%

			F	Revenues (	\$1,000s)			
	Tota	al	Bas	е	Fu	el	Rid	er
	Present	Proposed	Present	Proposed	Present	Proposed	Present	Proposed
Residential Regular Res Space Heating	1,152,813 46,324	1,362,144 54,756	856,446 31,832	1,126,721 43,306	226,859 11,021	225,355 10,947	69,508 3,472	10,067 503
Total Residential	1,199,137	1,416,900	888,278	1,170,027	237,879	236,303	72,980	10,570
Small Comm. & Ind. Large Comm. & Ind.	1,243,397 579,954	1,430,702 672,047	829,402 346,100	1,092,748 477,219	322,571 185,414	323,273 186,284	91,424 48,440	14,681 8,544
Total Comm. & Ind.	1,823,350	2,102,749	1,175,501	1,569,967	507,986	509,557	139,864	23,225
Street Lighting Public Authorities	22,946 7,713	27,291 8,826	20,480 5,494	25,149 7,073	2,025 1,676	2,027 1,678	442 543	115 76
Total Retail	3,053,147	3,555,766	2,089,753	2,772,216	749,565	749,565	213,829	33,986
Other Revenues Incr. Interdept Rev Incr		1,564 100		1,564 144		0		-45
Retail + Increases	3,053,147	3,557,430	2,089,753	2,773,924	749,565	749,565	213,829	33,941
Interdept Present Rev.	687	687	456	456	178	178	53	53
Retail + Interdept	3,053,834	3,558,117	2,090,209	2,774,380	749,743	749,743	213,882	33,994

				Revenue li	ncrease			
	Tota	al	Bas	е	Fu	el	Rid	er
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Residential Regular	209,331	18.16%	270,275	31.56%	-1,503	-0.66%	-59,441	-85.5%
Res Space Heating	8,432	18.20%	11,474	36.05%	-73	-0.66%	-2,969	-85.5%
Total Residential	217,762	18.16%	281,749	31.72%	-1,577	-0.66%	-62,410	-85.5%
Small Comm. & Ind. Large Comm. & Ind.	187,305 92,093	15.06% 15.88%	263,347 131,119	31.75% 37.88%	702 870	0.22% 0.47%	-76,743 -39,895	-83.9% -82.4%
Total Comm. & Ind.	279,399	15.32%	394,466	33.56%	1,571	0.31%	-116,638	-83.4%
Street Lighting Public Authorities	4,345 1,113	18.94% 14.43%	4,669 1,579	22.80% 28.73%	3 2	0.14% 0.11%	-327 -467	-74.0% -86.0%
Total Retail	502,619	16.46%	682,463	32.66%	0	0.00%	-179,843	-84.1%
Other Revenues Incr. Interdept Rev Incr	1,564 100		1,564 144		0 0		0 -45	
Retail + Increases	504,283	16.52%	684,171	32.74%	0	0.00%	-179,888	-84.1%
Interdept Present Rev.	0	0.00%	0	0.00%	0	0.00%	0	0.0%
Retail + Interdept	504,283	16.51%	684,171	32.73%	0	0.00%	-179,888	-84.1%

		Revenues (\$1,000s)									
	Tota	al	Bas	е	Fu	el	Rid	er			
	Present	Proposed	Present	Proposed	Present	Proposed	Present	Proposed			
Residential Regular	1,139,409	1,382,657	848,484	1,148,634	225,519	224,019	65,406	10,004			
Res Space Heating	46,622	56,519	32,121	44,914	11,170	11,095	3,332	509			
Total Residential	1,186,032	1,439,176	880,605	1,193,548	236,689	235,115	68,737	10,513			
Small Comm. & Ind.	1,241,159	1,467,635	829,722	1,127,454	324,710	325,409	86,728	14,772			
Large Comm. & Ind.	572,935	682,247	343,081	488,421	184,455	185,325	45,399	8,501			
Total Comm. & Ind.	1,814,095	2,149,882	1,172,803	1,615,875	509,164	510,734	132,127	23,273			
Street Lighting	22,981	28,218	20,514	26,045	2,054	2,056	414	117			
Public Authorities	7,569	8,899	5,404	7,165	1,657	1,659	508	75			
Total Retail	3,030,677	3,626,174	2,079,326	2,842,633	749,564	749,563	201,787	33,978			
Other Revenues Incr.		1,737		1,737							
Interdept Rev Incr		121		163		0		-42			
Retail + Increases	3,030,677	3,628,033	2,079,326	2,844,533	749,564	749,564	201,787	33,936			
Interdept Present Rev.	686	686	456	456	179	179	50	50			
Retail + Interdept	3,031,362	3,628,719	2,079,782	2,844,989	749,743	749,743	201,837	33,986			

				Revenue li	ncrease			
	Tota	al	Bas	е	Fu	el	Rid	er
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Residential Regular	243,248	21.35%	300,150	35.37%	-1,500	-0.67%	-55,402	-84.7%
Res Space Heating	9,896	21.23%	12,793	39.83%	-74	-0.67%	-2,822	-84.7%
Total Residential	253,144	21.34%	312,943	35.54%	-1,574	-0.67%	-58,224	-84.7%
Small Comm. & Ind. Large Comm. & Ind.	226,476 109,312	18.25% 19.08%	297,732 145,340	35.88% 42.36%	699 870	0.22% 0.47%	-71,955 -36,899	-83.0% -81.3%
Total Comm. & Ind.	335,787	18.51%	443,072	37.78%	1,569	0.31%	-108,854	-82.4%
Street Lighting Public Authorities	5,236 1,330	22.78% 17.57%	5,531 1,761	26.96% 32.59%	3 2	0.13% 0.11%	-297 -433	-71.8% -85.2%
Total Retail	595,498	19.65%	763,307	36.71%	0	0.00%	-167,809	-83.2%
Other Revenues Incr. Interdept Rev Incr	1,737 121		1,737 163		0 0		0 -42	
Retail + Increases	597,356	19.71%	765,207	36.80%	0	0.00%	-167,851	-83.2%
Interdept Present Rev.	0	0.00%	0	0.00%	0	0.00%	0	0.0%
Retail + Interdept	597,356	19.71%	765,207	36.79%	0	0.00%	-167,851	-83.2%

Fuel Cost - Retail		Present		Proposed			
	Summer	Winter	Annual	Summer	Winter	Annual	
Retail	3.093¢	2.598¢	2.778¢	3.093¢	2.598¢	2.778¢	
Residential	3.148 ¢	2.644 ¢	2.827 ¢	3.129¢	2.628 ¢	2.810 ¢	
C&I - Non-Demand	3.187¢	2.677¢	2.863¢	3.149¢	2.645 ¢	2.828 ¢	
C&I-Dmd - Non-TOD			2.774¢			2.783¢	
C&I-Dmd -TOD On-Peak			3.469¢			3.400 ¢	
C&I-Dmd -TOD Off-Peak			2.269¢			2.335 ¢	
Lighting			2.216¢			2.220 ¢	

		Present	Proposed	Present	Proposed
Residential (A01	, A03)	Base R	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¢	12.823¢	13.449¢	15.952¢
	Winter	8.803¢	11.137¢	11.447¢	13.765¢
	Winter - Electric Space Heat	5.988¢	7.988¢	8.632 ¢	10.616¢

Residential Time	e of Day (A02, A04)	Base R	ates	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¢	24.909¢	23.645¢	28.038¢
	On-Peak Winter	16.508¢	20.442¢	19.152¢	23.070¢
	On-Peak Winter -Elec. Sp Ht	9.284¢	12.449¢	11.928¢	15.077¢
	Off-Peak Summer	4.170¢	5.496¢	7.318¢	8.625¢
	Off-Peak Winter	4.170¢	5.496¢	6.814 ¢	8.124 ¢

Res Electric Vel	nicle (A08, A80, A81)	Base R	ates	Rates + Fuel		
Customer / Mo.	A08 EV Service	\$4.95	\$5.50	\$4.95	\$5.50	
	A80 EV Pilot Bundled	\$17.47	\$17.47	\$17.47	\$17.47	
	A81 EV Pilot Pre-Pay	\$7.10	\$7.10	\$7.10	\$7.10	
Energy / kWh	On-Peak Summer	20.497¢	24.909¢	23.645¢	28.038¢	
	On-Peak Winter	16.508¢	20.442¢	19.152¢	23.070¢	
	Off-Peak Summer	4.170¢	5.496¢	7.318¢	8.625¢	
	Off-Peak Winter	4.170 ¢	5.496¢	6.814¢	8.124¢	

		Present	Proposed	Present	Proposed
Residential Time of Use Pilot (A72, A74)		Base R	ates	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¢	27.031¢	25.724¢	30.160¢
	On-Peak Winter	19.266¢	24.054¢	21.910¢	26.682¢
	Mid-Peak Summer	9.013¢	11.129¢	12.161¢	14.258¢
	Mid-Peak Winter	7.515¢	9.743¢	10.159¢	12.372¢
	Off-Peak Summer	2.784 ¢	3.930¢	5.932 ¢	7.059 ¢
	Off-Peak Winter	2.784 ¢	3.930¢	5.428 ¢	6.558¢

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¢	6.3860¢	7.314¢	9.196¢
	Standard Comm.	4.4870¢	6.3860¢	7.350 ¢	9.214¢
	Optional Resid Summer	10.301¢	12.823¢	13.449¢	15.952¢
	Optional Comm Summer	9.256¢	11.226¢	12.443¢	14.375¢

Limited Off-Peak (A	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 ¢	38.827 ¢	44.910¢
	Commercial	On-Peak	36.000¢	42.100 ¢	38.863¢	44.928¢
	Residential	Secondary	3.665¢	4.981¢	6.492¢	7.791¢
	Commercial	Secondary	3.665 ¢	4.981¢	6.528¢	7.809¢
	Commercial	Primary	3.560 ¢	4.854¢	6.423¢	7.682¢
	Commercial	T Trnsfrmd	3.398¢	4.679¢	6.261¢	7.507¢
	Commercial	Transmision	3.388¢	4.668¢	6.251 ¢	7.496¢

Small General (A09, A10, A11, A13)		Base Ra	Base 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 ¢	11.226¢	12.443¢	14.375¢
	Winter	7.757 ¢	9.540¢	10.434 ¢	12.185¢

Small Municipal Pumping (A40)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$10.00	\$11.50	\$10.00	\$11.50
Energy /kWh	Summer	9.256 ¢	11.226¢	12.443¢	14.375¢
	Winter	7.757 ¢	9.540 ¢	10.434¢	12.185¢

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 3 of 27

		Present	Proposed	Present	Proposed
Small General TOD	(A12, A16, A18, A22)	Base R	Base 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¢	17.767¢	18.067 ¢	20.916¢
	On-Peak Winter	11.723¢	14.154¢	14.400 ¢	16.799¢
	Off-Peak Summer	4.170 ¢	5.496¢	7.357 ¢	8.645¢
	Off-Peak Winter	4.170 ¢	5.496¢	6.847 ¢	8.141 ¢
	Constant Use - Summer	7.919¢	9.791¢	11.106¢	12.940¢
	Constant Use - Winter	6.814¢	8.526¢	9.491 ¢	11.171¢
Demand-Metered V	oltage Discounts	Base R	ates	Rates	+ Fuel
Voltage Discount / kWh	Primary	0.105¢	0.127¢	0.105 ¢	0.127¢
	Transmission Transformed	0.267 ¢	0.302¢	0.267 ¢	0.302 ¢
	Transmision	0.277¢	0.313¢	0.277¢	0.313¢
Voltage Discount / kW	Primary	\$0.80	\$0.70	\$0.80	\$0.70
	Transmission Transformed	\$1.55	\$1.75	\$1.55	\$1.75
	Transmision	\$2.35	\$2.50	\$2.35	\$2.50

General (A14)		Base R	Base Rates		Rates + Fuel	
Customer / Mo.		\$25.64	\$25.98	\$25.64	\$25.98	
Demand / kW	Summer	\$14.79	\$17.51	\$14.79	\$17.51	
	Winter	\$10.49	\$12.91	\$10.49	\$12.91	
Energy / kWh		3.407 ¢	4.697¢	6.181¢	7.480¢	
Energy Credit / kWh		-1.518¢	-1.753¢	-1.518¢	-1.753¢	

Municipal Pumping (A41)		Base Ra	Base Rates		Fuel
Customer / Mo.		\$25.64	\$25.98	\$25.64	\$25.98
Demand / kW	Summer	\$14.79	\$17.51	\$14.79	\$17.51
	Winter	\$10.49	\$12.91	\$10.49	\$12.91
Energy / kWh		3.407 ¢	4.697 ¢	6.181¢	7.480¢
Energy Credit / kWh		-1.518¢	-1.753¢	-1.518¢	-1.753¢

		Present	Proposed	Present	Proposed
General Time of Day (A15)		Base F	Rates	Rates	+ Fuel
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	\$17.51	\$14.79	\$17.51
	Winter	\$10.49	\$12.91	\$10.49	\$12.91
Off-Peak Demand / kW		\$2.35	\$2.50	\$2.35	\$2.50
Energy / kWh	On-Peak	4.855 ¢	6.771¢	8.324 ¢	10.171¢
	Off-Peak	2.341 ¢	3.194¢	4.610 ¢	5.529¢
Energy Credit / kWh		-1.518¢	-1.753¢	-1.518¢	-1.753¢

Hiawatha Light Rail Line (A29)		Base Ra	Base Rates		Fuel
Customer / Mo.		\$100.00	\$100.00	\$100.00	\$100.00
Generation Demand / kW	Summer	\$8.71	\$9.77	\$8.71	\$9.77
	Winter	\$4.41	\$5.17	\$4.41	\$5.17
Transmission & Distributio	n Demand / kW	\$5.28	\$7.04	\$5.28	\$7.04
Off-Peak Demand / kW	Primary	\$1.55	\$1.80	\$1.55	\$1.80
Energy / kWh	On-Peak Primary	4.750 ¢	6.644¢	8.219¢	10.044¢
	Off-Peak Primary	2.236 ¢	3.067¢	4.505 ¢	5.402 ¢
Energy Credit / kWh		-1.303 ¢	-1.500¢	-1.303¢	-1.500¢

Peak-Controlled (A23)		Base Ra	Base Rates		Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00	
Firm Demand / kW	Summer	\$14.79	\$17.51	\$14.79	\$17.51	
	Winter	\$10.49	\$12.91	\$10.49	\$12.91	
Control Demand / kW	Tier 2 - Level A	\$8.88	\$11.31	\$8.88	\$11.31	
	Tier 2 - Level B	\$7.86	\$10.18	\$7.86	\$10.18	
	Tier 2 - Level C	\$7.34	\$9.64	\$7.34	\$9.64	
	Tier 1 - Level B	\$7.15	\$9.44	\$7.15	\$9.44	
	Tier 1 - Level C	\$6.56	\$8.82	\$6.56	\$8.82	
	Tier 1 - Short Notice	\$6.09	\$8.32	\$6.09	\$8.32	
Energy / kWh		3.407 ¢	4.697¢	6.181¢	7.480¢	
Energy Credit / kWh		-1.518¢	-1.753¢	-1.518¢	-1.753¢	

		Present	Proposed	Present	Proposed
Peak-Controlled TOD (A24)		Base F	Base Rates		+ Fuel
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$17.51	\$14.79	\$17.51
	Winter	\$10.49	\$12.91	\$10.49	\$12.91
Control Demand / kW	Tier 2 - Level A	\$8.88	\$11.31	\$8.88	\$11.31
	Tier 2 - Level B	\$7.86	\$10.18	\$7.86	\$10.18
	Tier 2 - Level C	\$7.34	\$9.64	\$7.34	\$9.64
	Tier 1 - Level B	\$7.15	\$9.44	\$7.15	\$9.44
	Tier 1 - Level C	\$6.56	\$8.82	\$6.56	\$8.82
	Tier 1 - Short Notice	\$6.09	\$8.32	\$6.09	\$8.32
Off-Peak Demand / kW		\$2.35	\$2.50	\$2.35	\$2.50
Energy / kWh	On-Peak	4.855 ¢	6.771¢	8.324 ¢	10.171¢
	Off-Peak	2.341 ¢	3.194¢	4.610 ¢	5.529¢
Energy Credit / kWh		-1.5180¢	-1.7530 ¢	-1.5180 ¢	-1.7530 ¢

Tier 1 Energy-Controlled Rider (A27)		Base Ra	Base Rates		Fuel
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$17.51	\$14.79	\$17.51
	Winter	\$10.49	\$12.91	\$10.49	\$12.91
Control Demand / kW	Tier 1 - Level B	\$7.15	\$9.44	\$7.15	\$9.44
	Tier 1 - Level C	\$6.56	\$8.82	\$6.56	\$8.82
	Tier 1 - Short Notice	\$6.09	\$8.32	\$6.09	\$8.32
Off-Peak Demand / kW		\$2.35	\$2.50	\$2.35	\$2.50
Energy / kWh	Firm On-Peak	4.855 ¢	6.771¢	8.324¢	10.171¢
	Firm Off-Peak	2.341 ¢	3.194¢	4.610 ¢	5.529¢
	Controllable On-Peak	4.647 ¢	6.552¢	8.116¢	9.952¢
	Controllable Off-Peak	2.280 ¢	3.156¢	4.549¢	5.491¢
	Control Period Energy	9.000 ¢	9.000¢	12.469¢	12.400 ¢
Energy Credit / kWh		-1.518¢	-1.753¢	-1.518¢	-1.753¢

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

Standby Service Ric	der			
Supplemental Gene	ration Servic	ce Rider		
Customer / Mo.			\$25.64	\$25.98
Demand / Contract kW	Standby	Unscheduled Maint	\$3.06	\$3.38
	Standby	Scheduled Maint	\$2.96	\$3.28
	Standby	Non-Firm	\$2.35	\$2.50
	Supplement	al	\$3.40	\$3.83
Peak Surcharge / kWh	Standby	Summer	6.312 ¢	7.616¢
	Standby	Winter	4.130 ¢	5.282 ¢

Photovoltaic Dem	and Credit R	ider (A85, A86)		
Customer / Mo.			\$25.75	\$25.98
Peak Credit / kWh	A85	Closed	7.1390 ¢	7.1390 ¢
	A86	Standard	6.9648¢	6.9648¢

Northern States Power Company Electric Utility - Minnesota Test Year Ending December 31, 2021 Comparison Of Present & Proposed Rates

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 7 of 27

			Present	Proposed	Present	Proposed
Automatic Protective	Lighting (A07)		Base F	Base Rates		+ Fuel
Area	100 W H	IPSodium	\$7.41	\$9.21	\$8.30	\$10.10
	175 W M	<b>1</b> ercury	\$7.41	\$9.21	\$8.95	\$10.89
	250 W H	IPSodium	\$11.83	\$14.89	\$14.15	\$17.22
	400 W M	1ercury	\$11.83	\$14.89	\$15.31	\$18.63
	30-40W L	ED	\$7.28	\$8.91	\$7.53	\$9.16
	110-165W L	ED	\$11.33	\$14.00	\$12.31	\$14.98
Directional	250 W H	IPSodium	\$14.08	\$17.05	\$16.40	\$19.38
	400 W H	IPSodium	\$17.62	\$21.49	\$21.27	\$25.14
	1000 W M	1ercury	\$27.33	\$28.32	\$35.67	\$36.67

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 8 of 27

		Present	Proposed	Present	Proposed	
	Street Lighting System (A30)		Rates	Rates	Rates + Fuel	
Overhead	70 W HPSodium	\$9.63	\$12.09	\$10.24	\$12.70	
	100 W HPSodium	\$10.17	\$12.73	\$11.06	\$13.62	
	150 W HPSodium	\$10.95	\$13.77	\$12.24	\$15.07	
	200 W HPSodium	\$12.88	\$15.82	\$14.67	\$17.62	
	250 W HPSodium	\$13.87	\$17.02	\$16.19	\$19.35	
	400 W HPSodium	\$16.85	\$20.75	\$20.50	\$24.40	
	175 W Metal Halide	e \$14.98	\$17.53	\$16.52	\$19.07	
	30-40W LED	\$10.32	\$12.35	\$10.61	\$12.65	
	50-75W LED	\$11.01	\$13.11	\$11.50	\$13.60	
	110-165W LED	\$14.46	\$16.63	\$15.63	\$17.81	
	200-250W LED	\$17.98	\$20.35	\$19.83	\$22.21	
Underground	70 W HPSodium	\$19.54	\$23.56	\$20.15	\$24.17	
	100 W HPSodium	\$20.07	\$24.20	\$20.96	\$25.09	
	150 W HPSodium	\$20.86	\$25.24	\$22.15	\$26.54	
	250 W HPSodium	\$23.38	\$28.20	\$25.70	\$30.53	
	400 W HPSodium	\$26.06	\$31.71	\$29.71	\$35.36	
	175 W Metal Halide	e \$27.90	\$32.45	\$29.44	\$33.99	
	30-40W LED	\$20.22	\$23.82	\$20.51	\$24.12	
	50-75W LED	\$20.91	\$24.58	\$21.40	\$25.07	
	110-165W LED	\$23.96	\$27.80	\$25.13	\$28.98	
	200-250W LED	\$27.19	\$31.32	\$29.04	\$33.18	
Decorative UG	100 W HPSodium	\$31.67	\$37.63	\$32.56	\$38.52	
	150 W HPSodium	\$32.84	\$38.96	\$34.13	\$40.26	
	250 W HPSodium	\$34.89	\$41.58	\$37.21	\$43.91	
	400 W HPSodium	\$37.38	\$44.95	\$41.03	\$48.60	
	175 W Metal Halide	· · · · · · · · · · · · · · · · · · ·	\$44.95	\$38.92	\$46.49	
Pre-Pay Option	70 W HPSodium	\$5.97	\$7.09	\$6.58	\$7.70	
	100 W HPSodium	\$6.66	\$7.84	\$7.55	\$8.73	
	150 W HPSodium	\$7.54	\$8.85	\$8.83	\$10.15	
	250 W HPSodium	\$9.61	\$11.30	\$11.93	\$13.63	
	400 W HPSodium	\$12.42	\$14.56	\$16.07	\$18.21	
	175 W Metal Halide	•	\$15.55	\$15.08	\$17.09	
	30-40W LED	\$4.90	\$6.01	\$5.19	\$6.31	
	50-75W LED	\$5.49	\$6.63	\$5.98	\$7.12	
	110-165W LED	\$7.05	\$8.38	\$8.22	\$9.56	
	200-250W LED	\$8.93	\$10.38	\$10.78	\$12.24	

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 9 of 27

	Present	Proposed	Present	Proposed
Street Lighting Energy (A32)	Base F	Rates	Rates	+ Fuel
100 W Mercury	\$2.45	\$3.01	\$3.41	\$3.98
175 W Mercury	\$3.64	\$4.49	\$5.18	\$6.03
250 W Mercury	\$4.94	\$6.09	\$7.10	\$8.25
400 W Mercury	\$7.69	\$9.48	\$11.17	\$12.97
700 W Mercury	\$12.78	\$15.77	\$18.71	\$21.71
1000 W Mercury	\$17.77	\$21.95	\$26.11	\$30.30
1F72HO Fluorescent	\$3.61	\$3.93	\$4.59	\$4.92
<30W LED	\$1.06	\$1.12	\$1.25	\$1.31
30-45W LED	\$1.34	\$1.41	\$1.63	\$1.71
50-75W LED	\$1.85	\$1.96	\$2.34	\$2.45
110-165W LED	\$3.44	\$3.66	\$4.61	\$4.83
200-250W LED	\$5.14	\$5.47	\$6.99	\$7.33
50 W HPSodium	\$1.37	\$1.67	\$1.81	\$2.11
70 W HPSodium	\$1.73	\$2.12	\$2.34	\$2.74
100 W HPSodium	\$2.29	\$2.82	\$3.18	\$3.71
150 W HPSodium	\$3.14	\$3.87	\$4.43	\$5.16
200 W HPSodium	\$4.18	\$5.15	\$5.97	\$6.95
250 W HPSodium	\$5.28	\$6.51	\$7.60	\$8.84
400 W HPSodium	\$8.03	\$9.91	\$11.68	\$13.56
750 W HPSodium	\$13.78	\$17.02	\$20.20	\$23.45

Street Lighting Energy - Metered (A34)	Base Ra	Base Rates		Fuel
Customer / Mo.	\$5.00	\$5.50	\$5.00	\$5.50
Energy Charge per kWh	4.534 ¢	5.601 ¢	6.750¢	7.821¢

Street Lighting Energy - City of St. Paul (A37)	Base Rates		Rates + Fuel	
100 W HPSodium	\$5.48	\$6.45	\$6.37	\$7.34
150 W HPSodium	\$6.14	\$7.27	\$7.43	\$8.57
250 W HPSodium	\$8.60	\$9.42	\$10.92	\$11.75

**C&I-Dmd - Non-TOD** 

Lighting

C&I-Dmd -TOD On-Peak

**C&I-Dmd -TOD Off-Peak** 

2.783¢

3.400 ¢

2.335¢

2.220 ¢

Fuel Cost - Retail		Present			Proposed		
	Summer	Winter	Annual	Summer	Winter	Annual	
Retail	3.093 ¢	2.598¢	2.778¢	3.093¢	2.598¢	2.778¢	
Residential	3.148 ¢	2.644 ¢	2.827 ¢	3.129¢	2.628 ¢	2.810 ¢	
C&I - Non-Demand	3.187 ¢	2.677¢	2.863¢	3.149¢	2.645 ¢	2.828 ¢	

		Present	Proposed	Present	Proposed
Residential (A01	, A03)	Base F	Base 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¢	13.371¢	13.449 ¢	16.500 ¢
	Winter	8.803 ¢	11.643¢	11.447 ¢	14.271¢
	Winter - Electric Space Heat	5.988¢	8.481¢	8.632 ¢	11.109 ¢

2.774¢

3.469¢

2.269¢

2.216¢

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¢	26.159¢	23.645¢	29.288¢
	On-Peak Winter	16.508¢	21.581¢	19.152¢	24.209¢
	On-Peak Winter -Elec. Sp Ht	9.284¢	13.607¢	11.928¢	16.235¢
	Off-Peak Summer	4.170¢	5.618¢	7.318¢	8.747¢
	Off-Peak Winter	4.170¢	5.618¢	6.814¢	8.246 ¢

Res Electric Vehicle (A08, A80, A81)		Base Rates		Rates + Fuel	
Customer / Mo.	A08 EV Service	\$4.95	\$5.50	\$4.95	\$5.50
	A80 EV Pilot Bundled	\$17.47	\$17.47	\$17.47	\$17.47
	A81 EV Pilot Pre-Pay	\$7.10	\$7.10	\$7.10	\$7.10
Energy / kWh	On-Peak Summer	20.497¢	26.159¢	23.645¢	29.288¢
	On-Peak Winter	16.508¢	21.581¢	19.152¢	24.209¢
	Off-Peak Summer	4.170¢	5.618¢	7.318¢	8.747¢
	Off-Peak Winter	4.170 ¢	5.618¢	6.814¢	8.246¢

## **Comparison Of Present & Proposed Rates**

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			Present	Proposed	Present	Proposed
Residential Time	e of Use Pilot (A72	2, A74)	Base F	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 Sum	imer	22.576¢	28.067¢	25.724 ¢	31.196¢
	On-Peak Win	ter	19.266¢	25.034¢	21.910¢	27.663 ¢
	Mid-Peak Sur	mmer	9.013¢	11.619¢	12.161¢	14.748¢
	Mid-Peak Wi	nter	7.515¢	10.198¢	10.159¢	12.826 ¢
	Off-Peak Sum	mer	2.784 ¢	4.172¢	5.932¢	7.301 ¢
	Off-Peak Win	ter	2.784 ¢	4.172¢	5.428¢	6.801 ¢
Energy-Control	led Non-Demand (	(A05)	Base F	Base Rates		+ Fuel
Customer / Mo.			\$4.95	\$5.50	\$4.95	\$5.50
Energy / kWh	Standard Resi	d.	4.4870¢	6.8810¢	7.314 ¢	9.691 ¢
3.	Standard Com	m.	4.4870¢	6.8810¢	7.350 ¢	9.709¢
	Optional Resid	d Summer	10.301¢	13.371¢	13.449¢	16.500 ¢
	Optional Com	m Summer	9.256¢	11.487¢	12.443¢	14.636¢
Limited Off-Pea	k (A06)		Base F	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 ¢	43.400¢	38.827 ¢	46.210 ¢
	Commercial	On-Peak	36.000 ¢	43.400¢	38.863¢	46.228 ¢
	Residential	Secondary	3.665¢	5.103¢	6.492¢	7.913¢
	Commercial	Secondary	3.665¢	5.103¢	6.528¢	7.931 ¢
	Commercial	Primary	3.560 ¢	4.974¢	6.423¢	7.802 ¢
	Commercial	T Trnsfrmd	3.398¢	4.797¢	6.261¢	7.625¢
	Commercial	Transmision	3.388¢	4.786¢	6.251¢	7.614 ¢

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	\$4.00	\$3.61	\$4.00
Energy /kWh	Summer	9.256¢	11.487¢	12.443¢	14.636¢
	Winter	7.757 ¢	9.759¢	10.434¢	12.404¢

Small Municipal Pumping (A40)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$10.00	\$11.50	\$10.00	\$11.50
Energy /kWh	Summer	9.256 ¢	11.487¢	12.443¢	14.636¢
	Winter	7.757 ¢	9.759¢	10.434¢	12.404 ¢

		Present	Proposed	Present	Proposed	
Small General TOD	(A12, A16, A18, A22)	Base R	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	\$0.34	\$0.30	\$0.34	
	Low Wattage <400W (A22)	\$1.20	\$1.34	\$1.20	\$1.34	
Energy / kWh	On-Peak Summer	14.880¢	18.187¢	18.067¢	21.336¢	
	On-Peak Winter	11.723¢	14.484¢	14.400 ¢	17.129¢	
	Off-Peak Summer	4.170¢	5.618¢	7.357¢	8.767 ¢	
	Off-Peak Winter	4.170¢	5.618¢	6.847¢	8.263¢	
	Constant Use - Summer	7.919¢	10.017¢	11.106¢	13.166¢	
	Constant Use - Winter	6.814¢	8.721 ¢	9.491¢	11.366¢	
Demand-Metered V	oltage Discounts	Base R	ates	Rates	+ Fuel	
Voltage Discount / kWh	Primary	0.105¢	0.129¢	0.105 ¢	0.129¢	
	Transmission Transformed	0.267¢	0.306¢	0.267¢	0.306¢	
	Transmision	0.277¢	0.317¢	0.277¢	0.317¢	
Voltage Discount / kW	Primary	\$0.80	\$0.70	\$0.80	\$0.70	
	Transmission Transformed	\$1.55	\$1.90	\$1.55	\$1.90	
	Transmision	\$2.35	\$2.70	\$2.35	\$2.70	

General (A14)		Base R	Base Rates		Rates + Fuel	
Customer / Mo.		\$25.64	\$26.00	\$25.64	\$26.00	
Demand / kW	Summer	\$14.79	\$17.88	\$14.79	\$17.88	
	Winter	\$10.49	\$13.27	\$10.49	\$13.27	
Energy / kWh		3.407 ¢	4.807 ¢	6.181¢	7.590 ¢	
Energy Credit / kWh		-1.518¢	-1.806¢	-1.518¢	-1.806¢	

Municipal Pumping (A41)		Base Ra	Base Rates		Fuel
Customer / Mo.		\$25.64	\$26.00	\$25.64	\$26.00
Demand / kW	Summer	\$14.79	\$17.88	\$14.79	\$17.88
	Winter	\$10.49	\$13.27	\$10.49	\$13.27
Energy / kWh		3.407 ¢	4.807 ¢	6.181¢	7.590¢
Energy Credit / kWh		-1.518¢	-1.806¢	-1.518¢	-1.806¢

# Present Pro

		Present	Proposea	Present	Proposea
General Time of Day (A15)		Base R	Base Rates		+ Fuel
Customer / Mo.	Standard A15)	\$29.64	\$30.00	\$29.64	\$30.00
	kWh Metered (A17)	\$25.64	\$26.00	\$25.64	\$26.00
	Unmetered (A19)	\$21.64	\$22.00	\$21.64	\$22.00
On-Peak Demand / kW	Summer	\$14.79	\$17.88	\$14.79	\$17.88
	Winter	\$10.49	\$13.27	\$10.49	\$13.27
Off-Peak Demand / kW		\$2.35	\$2.70	\$2.35	\$2.70
Energy / kWh	On-Peak	4.855 ¢	6.930¢	8.324 ¢	10.330¢
	Off-Peak	2.341 ¢	3.269¢	4.610 ¢	5.604 ¢
Energy Credit / kWh		-1.518¢	-1.806¢	-1.518¢	-1.806¢

Hiawatha Light Rail Line (A29)		Base R	Base Rates		Fuel
Customer / Mo.		\$100.00	\$100.00	\$100.00	\$100.00
Generation Demand / kW	Summer	\$8.71	\$9.76	\$8.71	\$9.76
	Winter	\$4.41	\$5.15	\$4.41	\$5.15
Transmission & Distributio	n Demand / kW	\$5.28	\$7.42	\$5.28	\$7.42
Off-Peak Demand / kW	Primary	\$1.55	\$2.00	\$1.55	\$2.00
Energy / kWh	On-Peak Primary	4.750 ¢	6.801 ¢	8.219¢	10.201¢
	Off-Peak Primary	2.236 ¢	3.140 ¢	4.505 ¢	5.475¢
Energy Credit / kWh		-1.303 ¢	-1.550¢	-1.303¢	-1.550¢

Peak-Controlled (A23)		Base Ra	ates	Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
Firm Demand / kW	Summer	\$14.79	\$17.88	\$14.79	\$17.88
	Winter	\$10.49	\$13.27	\$10.49	\$13.27
Control Demand / kW	Tier 2 - Level A	\$8.88	\$11.68	\$8.88	\$11.68
	Tier 2 - Level B	\$7.86	\$10.55	\$7.86	\$10.55
	Tier 2 - Level C	\$7.34	\$10.01	\$7.34	\$10.01
	Tier 1 - Level B	\$7.15	\$9.81	\$7.15	\$9.81
	Tier 1 - Level C	\$6.56	\$9.19	\$6.56	\$9.19
	Tier 1 - Short Notice	\$6.09	\$8.69	\$6.09	\$8.69
Energy / kWh		3.407 ¢	4.807 ¢	6.181¢	7.590¢
Energy Credit / kWh		-1.518¢	-1.806 ¢	-1.518¢	-1.806 ¢

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 14 of 27

		Present	Proposed	Present	Proposed
Peak-Controlled TOD (A24)		Base F	Base Rates		+ Fuel
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$17.88	\$14.79	\$17.88
	Winter	\$10.49	\$13.27	\$10.49	\$13.27
Control Demand / kW	Tier 2 - Level A	\$8.88	\$11.68	\$8.88	\$11.68
	Tier 2 - Level B	\$7.86	\$10.55	\$7.86	\$10.55
	Tier 2 - Level C	\$7.34	\$10.01	\$7.34	\$10.01
	Tier 1 - Level B	\$7.15	\$9.81	\$7.15	\$9.81
	Tier 1 - Level C	\$6.56	\$9.19	\$6.56	\$9.19
	Tier 1 - Short Notice	\$6.09	\$8.69	\$6.09	\$8.69
Off-Peak Demand / kW		\$2.35	\$2.70	\$2.35	\$2.70
Energy / kWh	On-Peak	4.855 ¢	6.930¢	8.324 ¢	10.330¢
	Off-Peak	2.341 ¢	3.269¢	4.610 ¢	5.604 ¢
Energy Credit / kWh		-1.5180 ¢	-1.8060 ¢	-1.5180 ¢	-1.8060 ¢

Tier 1 Energy-Cont	rolled Rider (A27)	Base Ra	ates	Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$17.88	\$14.79	\$17.88
	Winter	\$10.49	\$13.27	\$10.49	\$13.27
Control Demand / kW	Tier 1 - Level B	\$7.15	\$9.81	\$7.15	\$9.81
	Tier 1 - Level C	\$6.56	\$9.19	\$6.56	\$9.19
	Tier 1 - Short Notice	\$6.09	\$8.69	\$6.09	\$8.69
Off-Peak Demand / kW		\$2.35	\$2.70	\$2.35	\$2.70
Energy / kWh	Firm On-Peak	4.855 ¢	6.930¢	8.324¢	10.330¢
	Firm Off-Peak	2.341 ¢	3.269¢	4.610 ¢	5.604 ¢
	Controllable On-Peak	4.647 ¢	6.705¢	8.116¢	10.105¢
	Controllable Off-Peak	2.280 ¢	3.232¢	4.549¢	5.567¢
	Control Period Energy	9.000 ¢	9.000¢	12.469¢	12.400¢
Energy Credit / kWh		-1.518¢	-1.806 ¢	-1.518¢	-1.806¢

	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							
Demand / Contract kW	Standby	Unscheduled Maint	\$3.06	\$3.60			
	Standby	Scheduled Maint	\$2.96	\$3.50			
	Standby	Non-Firm	\$2.35	\$2.70			
Supplemental		al	\$3.40	\$4.05			
5	Standby	Summer	6.312 ¢	7.702 ¢			
	Standby	Winter	4.130 ¢	5.363 ¢			

Photovoltaic Demand Credit Rider (A85, A86)						
Customer / Mo.			\$25.75	\$26.00		
Peak Credit / kWh	A85	Closed	7.1390 ¢	7.1390 ¢		
	A86	Standard	6.9648¢	6.9648¢		

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 16 of 27

			Present	Proposed	Present	Proposed
Automatic Protective	Automatic Protective Lighting (A07)		Base F	Base Rates		+ Fuel
Area	100 W HPS	Sodium	\$7.41	\$9.71	\$8.29	\$10.59
	175 W Mer	cury	\$7.41	\$9.71	\$8.94	\$11.43
	250 W HPS	Sodium	\$11.83	\$15.76	\$14.14	\$18.07
	400 W Mer	cury	\$11.83	\$15.76	\$15.30	\$19.55
	30-40W LED	)	\$7.28	\$9.37	\$7.53	\$9.62
	110-165W LED	)	\$11.33	\$14.75	\$12.30	\$15.72
Directional	250 W HPS	Sodium	\$14.08	\$18.06	\$16.39	\$20.37
	400 W HPS	Sodium	\$17.62	\$22.78	\$21.25	\$26.41
	1000 W Mer	cury	\$27.33	\$29.06	\$35.63	\$37.37

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 17 of 27

		Present	Proposed	Present	Proposed	
Street Lighting System	Street Lighting System (A30)		Base Rates		Rates + Fuel	
Overhead	70 W HPSc	dium \$9.63	3 \$12.55	\$10.24	\$13.16	
	100 W HPSc	dium \$10.1		\$11.05	\$14.11	
	150 W HPSc	dium \$10.9	5 \$14.32	\$12.24	\$15.61	
	200 W HPSc	dium \$12.88	8 \$16.45	\$14.67	\$18.24	
	250 W HPSc	dium \$13.8	7 \$17.72	\$16.18	\$20.03	
	400 W HPSc	•		\$20.48	\$25.25	
	175 W Metal	Halide \$14.98	8 \$18.17	\$16.51	\$19.70	
	30-40W LED	\$10.32		\$10.61	\$13.09	
	50-75W LED	\$11.0°	1 \$13.59	\$11.50	\$14.08	
	110-165W LED	\$14.46	5 \$17.23	\$15.63	\$18.40	
	200-250W LED	\$17.98	3 \$21.07	\$19.82	\$22.92	
Underground	70 W HPSc	•	•	\$20.15	\$24.85	
	100 W HPSc	•	•	\$20.95	\$25.79	
	150 W HPSc	•		\$22.15	\$27.31	
	250 W HPSc	•		\$25.69	\$31.43	
	400 W HPSc	•		\$29.69	\$36.42	
	175 W Metal	•	•	\$29.43	\$34.91	
	30-40W LED	\$20.22		\$20.51	\$24.78	
	50-75W LED	\$20.9 <sup>-</sup>		\$21.40	\$25.76	
	110-165W LED	\$23.96		\$25.13	\$29.79	
	200-250W LED	\$27.19		\$29.03	\$34.10	
Decorative UG	100 W HPSc	•		\$32.55	\$39.49	
	150 W HPSc			\$34.13	\$41.29	
	250 W HPSc	•		\$37.20	\$45.06	
	400 W HPSc	•	•	\$41.01	\$49.91	
	175 W Metal	·		\$38.91	\$47.81	
Pre-Pay Option	70 W HPSc		•	\$6.58	\$7.89	
	100 W HPSc	•		\$7.54	\$8.95	
	150 W HPSc	•	•	\$8.83	\$10.42	
	250 W HPSc	•	<u>-</u>	\$11.92	\$14.02	
	400 W HPSc	•		\$16.05	\$18.76	
	175 W Metal	•		\$15.07	\$17.61	
	30-40W LED	\$4.90		\$5.19	\$6.45	
	50-75W LED	\$5.49		\$5.98	\$7.29	
	110-165W LED	\$7.0		\$8.22	\$9.81	
	200-250W LED	\$8.93	3 \$10.72	\$10.77	\$12.57	

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 18 of 27

	Present	Proposed	Present	Proposed
Street Lighting Energy (A32)	Base F	Rates	Rates	+ Fuel
100 W Mercury	\$2.45	\$3.09	\$3.41	\$4.05
175 W Mercury	\$3.64	\$4.61	\$5.17	\$6.14
250 W Mercury	\$4.94	\$6.25	\$7.09	\$8.40
400 W Mercury	\$7.69	\$9.76	\$11.16	\$13.23
700 W Mercury	\$12.78	\$16.24	\$18.68	\$22.15
1000 W Mercury	\$17.77	\$22.60	\$26.07	\$30.91
1F72HO Fluorescent	\$3.61	\$3.93	\$4.59	\$4.92
<30W LED	\$1.06	\$1.12	\$1.25	\$1.31
30-45W LED	\$1.34	\$1.41	\$1.63	\$1.71
50-75W LED	\$1.85	\$1.96	\$2.34	\$2.45
110-165W LED	\$3.44	\$3.66	\$4.61	\$4.83
200-250W LED	\$5.14	\$5.47	\$6.98	\$7.32
50 W HPSodium	\$1.37	\$1.71	\$1.81	\$2.15
70 W HPSodium	\$1.73	\$2.17	\$2.34	\$2.78
100 W HPSodium	\$2.29	\$2.89	\$3.17	\$3.78
150 W HPSodium	\$3.14	\$3.97	\$4.43	\$5.26
200 W HPSodium	\$4.18	\$5.29	\$5.97	\$7.08
250 W HPSodium	\$5.28	\$6.69	\$7.59	\$9.01
400 W HPSodium	\$8.03	\$10.19	\$11.66	\$13.83
750 W HPSodium	\$13.78	\$17.52	\$20.17	\$23.92

Street Lighting Energy - Metered (A34)	Base Rates		Rates + Fuel	
Customer / Mo.	\$5.00	\$5.50	\$5.00	\$5.50
Energy Charge per kWh	4.534 ¢	5.772¢	6.750¢	7.992¢

Street Lighting Energy - City of St. Paul (A37)	Base Rates		Rates + Fuel	
100 W HPSodium	\$5.48	\$6.52	\$6.36	\$7.40
150 W HPSodium	\$6.14	\$7.36	\$7.43	\$8.65
250 W HPSodium	\$8.60	\$9.94	\$10.91	\$12.25

**C&I-Dmd - Non-TOD** 

Lighting

**C&I-Dmd -TOD On-Peak** 

**C&I-Dmd -TOD Off-Peak** 

2.783¢

3.400¢

2.335¢

2.220 ¢

Fuel Cost - Retail		Present			Proposed	
	Summer	Winter	Annual	Summer	Winter	Annua
Retail	3.093¢	2.598¢	2.778¢	3.093¢	2.598 ¢	2.778 ¢
Residential	3.148 ¢	2.644 ¢	2.827 ¢	3.129¢	2.628 ¢	2.810 ¢
C&I - Non-Demand	3.187 ¢	2.677¢	2.863¢	3.149¢	2.645 ¢	2.828 ¢

2.774¢

3.469¢

2.269¢

2.216¢

		Present	Proposed	Present	Proposed
Residential (A01, A03)		Base F	Base 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¢	13.802¢	13.449 ¢	16.931¢
	Winter	8.803 ¢	12.042¢	11.447¢	14.670¢
	Winter - Electric Space Heat	5.988¢	8.746¢	8.632 ¢	11.374¢

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¢	27.229¢	23.645¢	30.358¢
	On-Peak Winter	16.508¢	22.566¢	19.152¢	25.194¢
	On-Peak Winter -Elec. Sp Ht	9.284¢	14.267¢	11.928¢	16.895¢
	Off-Peak Summer	4.170¢	5.662¢	7.318¢	8.791¢
	Off-Peak Winter	4.170¢	5.662¢	6.814 ¢	8.290¢

Res Electric Vehicle (A08, A80, A81)		Base Rates		Rates + Fuel	
Customer / Mo.	A08 EV Service	\$4.95	\$5.50	\$4.95	\$5.50
	A80 EV Pilot Bundled	\$17.47	\$17.47	\$17.47	\$17.47
	A81 EV Pilot Pre-Pay	\$7.10	\$7.10	\$7.10	\$7.10
Energy / kWh	On-Peak Summer	20.497¢	27.229¢	23.645 ¢	30.358¢
	On-Peak Winter	16.508¢	22.566¢	19.152¢	25.194¢
	Off-Peak Summer	4.170¢	5.662¢	7.318¢	8.791¢
	Off-Peak Winter	4.170¢	5.662¢	6.814¢	8.290¢

		Present	Proposed	Present	Proposed
Residential Time of Use Pilot (A72, A74)		Base R	Base 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¢	28.882¢	25.724¢	32.011¢
	On-Peak Winter	19.266¢	25.808¢	21.910¢	28.436¢
	Mid-Peak Summer	9.013¢	12.004¢	12.161¢	15.133¢
	Mid-Peak Winter	7.515¢	10.557¢	10.159¢	13.185¢
	Off-Peak Summer	2.784 ¢	4.363¢	5.932 ¢	7.492¢
	Off-Peak Winter	2.784 ¢	4.363¢	5.428 ¢	6.991¢

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¢	7.1410¢	7.314¢	9.951¢
	Standard Comm.	4.4870¢	7.1410¢	7.350 ¢	9.969¢
	Optional Resid Summer	10.301¢	13.802¢	13.449¢	16.931¢
	Optional Comm Summer	9.256¢	11.834¢	12.443¢	14.983¢

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¢	44.400 ¢	38.827 ¢	47.210¢
	Commercial	On-Peak	36.000¢	44.400 ¢	38.863¢	47.228¢
	Residential	Secondary	3.665¢	5.147¢	6.492¢	7.957¢
	Commercial	Secondary	3.665 ¢	5.147¢	6.528¢	7.975¢
	Commercial	Primary	3.560 ¢	5.015¢	6.423¢	7.843¢
	Commercial	T Trnsfrmd	3.398¢	4.834 ¢	6.261¢	7.662¢
	Commercial	Transmision	3.388¢	4.823 ¢	6.251 ¢	7.651 ¢

Small General (A09, A10, A11, A13)		Base Ra	Base 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	\$4.10	\$3.61	\$4.10
Energy /kWh	Summer	9.256¢	11.834¢	12.443¢	14.983¢
	Winter	7.757 ¢	10.073¢	10.434¢	12.718¢

Small Municipal Pumping (A40)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$10.00	\$11.50	\$10.00	\$11.50
Energy /kWh	Summer	9.256 ¢	11.834¢	12.443¢	14.983¢
	Winter	7.757 ¢	10.073¢	10.434¢	12.718¢

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 21 of 27

		Present	Proposed	Present	Proposed
Small General TOD	(A12, A16, A18, A22)	Base R	Base 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	\$0.34	\$0.30	\$0.34
	Low Wattage <400W (A22)	\$1.20	\$1.34	\$1.20	\$1.34
Energy / kWh	On-Peak Summer	14.880¢	18.880¢	18.067 ¢	22.029 ¢
	On-Peak Winter	11.723¢	15.106¢	14.400 ¢	17.751 ¢
	Off-Peak Summer	4.170 ¢	5.662¢	7.357 ¢	8.811 ¢
	Off-Peak Winter	4.170 ¢	5.662¢	6.847 ¢	8.307 ¢
	Constant Use - Summer	7.919¢	10.288¢	11.106¢	13.437 ¢
	Constant Use - Winter	6.814¢	8.967¢	9.491 ¢	11.612¢
Demand-Metered V	oltage Discounts	Base Rates		Rates + Fuel	
Voltage Discount / kWh	Primary	0.105¢	0.132¢	0.105 ¢	0.132 ¢
	Transmission Transformed	0.267¢	0.313¢	0.267¢	0.313¢
	Transmision	0.277¢	0.324¢	0.277¢	0.324 ¢
Voltage Discount / kW	Primary	\$0.80	\$0.70	\$0.80	\$0.70
	Transmission Transformed	\$1.55	\$2.10	\$1.55	\$2.10
	Transmision	\$2.35	\$2.95	\$2.35	\$2.95

General (A14)		Base R	Base Rates		Rates + Fuel	
Customer / Mo.		\$25.64	\$25.99	\$25.64	\$25.99	
Demand / kW	Summer	\$14.79	\$18.36	\$14.79	\$18.36	
	Winter	\$10.49	\$13.75	\$10.49	\$13.75	
Energy / kWh		3.407 ¢	4.956¢	6.181¢	7.739¢	
Energy Credit / kWh		-1.518¢	-1.847¢	-1.518¢	-1.847¢	

Municipal Pumping (A41)		Base Ra	Base Rates		Rates + Fuel	
Customer / Mo.		\$25.64	\$25.99	\$25.64	\$25.99	
Demand / kW	Summer	\$14.79	\$18.36	\$14.79	\$18.36	
	Winter	\$10.49	\$13.75	\$10.49	\$13.75	
Energy / kWh		3.407 ¢	4.956¢	6.181¢	7.739¢	
Energy Credit / kWh		-1.518¢	-1.847¢	-1.518¢	-1.847¢	

		Present	Proposed	Present	Proposed
General Time of Da	y (A15)	Base F	Rates	Rates	+ Fuel
Customer / Mo.	Standard A15)	\$29.64	\$29.99	\$29.64	\$29.99
	kWh Metered (A17)	\$25.64	\$25.99	\$25.64	\$25.99
	Unmetered (A19)	\$21.64	\$21.99	\$21.64	\$21.99
On-Peak Demand / kW	Summer	\$14.79	\$18.36	\$14.79	\$18.36
	Winter	\$10.49	\$13.75	\$10.49	\$13.75
Off-Peak Demand / kW		\$2.35	\$2.95	\$2.35	\$2.95
Energy / kWh	On-Peak	4.855 ¢	7.144¢	8.324 ¢	10.544¢
	Off-Peak	2.341 ¢	3.370¢	4.610 ¢	5.705 ¢
Energy Credit / kWh		-1.518¢	-1.847¢	-1.518¢	-1.847¢

Hiawatha Light Rail Line (A29)		Base R	Base Rates		Fuel
Customer / Mo.		\$100.00	\$100.00	\$100.00	\$100.00
Generation Demand / kW	Summer	\$8.71	\$9.61	\$8.71	\$9.61
	Winter	\$4.41	\$5.00	\$4.41	\$5.00
Transmission & Distributio	n Demand / kW	\$5.28	\$8.05	\$5.28	\$8.05
Off-Peak Demand / kW	Primary	\$1.55	\$2.25	\$1.55	\$2.25
Energy / kWh	On-Peak Primary	4.750 ¢	7.012¢	8.219¢	10.412¢
	Off-Peak Primary	2.236 ¢	3.238¢	4.505 ¢	5.573¢
Energy Credit / kWh		-1.303 ¢	-1.590¢	-1.303¢	-1.590¢

Peak-Controlled (A23)		Base Ra	ates	Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
Firm Demand / kW	Summer	\$14.79	\$18.36	\$14.79	\$18.36
	Winter	\$10.49	\$13.75	\$10.49	\$13.75
Control Demand / kW	Tier 2 - Level A	\$8.88	\$12.16	\$8.88	\$12.16
	Tier 2 - Level B	\$7.86	\$11.03	\$7.86	\$11.03
	Tier 2 - Level C	\$7.34	\$10.49	\$7.34	\$10.49
	Tier 1 - Level B	\$7.15	\$10.29	\$7.15	\$10.29
	Tier 1 - Level C	\$6.56	\$9.67	\$6.56	\$9.67
	Tier 1 - Short Notice	\$6.09	\$9.17	\$6.09	\$9.17
Energy / kWh		3.407 ¢	4.956¢	6.181¢	7.739¢
Energy Credit / kWh		-1.518¢	-1.847 ¢	-1.518¢	-1.847 ¢

		Present	Proposed	Present	Proposed
Peak-Controlled TO	OD (A24)	Base F	Base Rates		+ Fuel
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$18.36	\$14.79	\$18.36
	Winter	\$10.49	\$13.75	\$10.49	\$13.75
Control Demand / kW	Tier 2 - Level A	\$8.88	\$12.16	\$8.88	\$12.16
	Tier 2 - Level B	\$7.86	\$11.03	\$7.86	\$11.03
	Tier 2 - Level C	\$7.34	\$10.49	\$7.34	\$10.49
	Tier 1 - Level B	\$7.15	\$10.29	\$7.15	\$10.29
	Tier 1 - Level C	\$6.56	\$9.67	\$6.56	\$9.67
	Tier 1 - Short Notice	\$6.09	\$9.17	\$6.09	\$9.17
Off-Peak Demand / kW		\$2.35	\$2.95	\$2.35	\$2.95
Energy / kWh	On-Peak	4.855 ¢	7.144¢	8.324 ¢	10.544¢
	Off-Peak	2.341 ¢	3.370 ¢	4.610 ¢	5.705 ¢
Energy Credit / kWh		-1.5180 ¢	-1.8470¢	-1.5180¢	-1.8470 ¢

Tier 1 Energy-Controlled Rider (A27)		Base Ra	ates	Rates + Fuel	
Customer / Mo.		\$55.00	\$60.00	\$55.00	\$60.00
On-Peak Demand / kW	Summer	\$14.79	\$18.36	\$14.79	\$18.36
	Winter	\$10.49	\$13.75	\$10.49	\$13.75
Control Demand / kW	Tier 1 - Level B	\$7.15	\$10.29	\$7.15	\$10.29
	Tier 1 - Level C	\$6.56	\$9.67	\$6.56	\$9.67
	Tier 1 - Short Notice	\$6.09	\$9.17	\$6.09	\$9.17
Off-Peak Demand / kW		\$2.35	\$2.95	\$2.35	\$2.95
Energy / kWh	Firm On-Peak	4.855 ¢	7.144¢	8.324 ¢	10.544¢
	Firm Off-Peak	2.341 ¢	3.370¢	4.610 ¢	5.705 ¢
	Controllable On-Peak	4.647 ¢	6.912¢	8.116¢	10.312¢
	Controllable Off-Peak	2.280 ¢	3.334¢	4.549¢	5.669¢
	Control Period Energy	9.000 ¢	9.000¢	12.469¢	12.400¢
Energy Credit / kWh		-1.518¢	-1.847¢	-1.518¢	-1.847¢

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 24 of 27

	Present	Proposed
Fire & Civil Defense Siren (A42)		
HP Capacity / Mo.	\$0.76	\$0.84
Min Charge / Mo.	\$3.66	\$3.98

Standby Service Ric	ler						
Supplemental Generation Service Rider							
Customer / Mo.			\$25.64	\$25.99			
Demand / Contract kW	Standby	Unscheduled Maint	\$3.06	\$3.86			
	Standby	Scheduled Maint	\$2.96	\$3.76			
	Standby	Non-Firm	\$2.35	\$2.95			
	Supplement	al	\$3.40	\$4.33			
Peak Surcharge / kWh	Standby	Summer	6.312 ¢	7.819 ¢			
	Standby	Winter	4.130 ¢	5.480 ¢			

Photovoltaic Demand Credit Rider (A85, A86)							
Customer / Mo.			\$25.75	\$25.99			
Peak Credit / kWh	A85	Closed	7.1390 ¢	7.1390 ¢			
	A86	Standard	6.9648 ¢	6.9648¢			

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 25 of 27

		Present	Proposed	Present	Proposed
<b>Automatic Protective</b>	Lighting (A07)	Base I	Base Rates		+ Fuel
Area	100 W HPSodium	\$7.41	\$10.20	\$8.30	\$11.09
	175 W Mercury	\$7.41	\$10.20	\$8.95	\$11.96
	250 W HPSodium	\$11.83	\$16.59	\$14.16	\$18.92
	400 W Mercury	\$11.83	\$16.59	\$15.32	\$20.47
	30-40W LED	\$7.28	\$9.81	\$7.53	\$10.06
	110-165W LED	\$11.33	\$15.47	\$12.31	\$16.45
Directional	250 W HPSodium	\$14.08	\$19.02	\$16.41	\$21.35
	400 W HPSodium	\$17.62	\$24.01	\$21.27	\$27.67
	1000 W Mercury	\$27.33	\$29.06	\$35.68	\$37.42

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 26 of 27

		Prese	nt	Proposed	Present	Proposed
Street Lighting Syste	m (A30)	Ba	Base Rates		Rates	+ Fuel
Overhead	70 W HPS	odium \$9	9.63	\$13.05	\$10.24	\$13.66
	100 W HPS	odium \$10	0.17	\$13.73	\$11.06	\$14.62
	150 W HPS	odium \$10	0.95	\$14.84	\$12.25	\$16.14
	200 W HPS	odium \$12	2.88	\$16.99	\$14.68	\$18.79
	250 W HPS	•	3.87	\$18.28	\$16.20	\$20.61
	400 W HPS	odium \$16	6.85	\$22.21	\$20.50	\$25.87
	175 W Meta	al Halide \$14	4.98	\$18.73	\$16.52	\$20.27
	30-40W LED	\$10	0.32	\$13.30	\$10.62	\$13.60
	50-75W LED	\$11	1.01	\$14.09	\$11.50	\$14.58
	110-165W LED	\$14	1.46	\$17.76	\$15.63	\$18.94
	200-250W LED		7.98	\$21.66	\$19.84	\$23.52
Underground	70 W HPS		9.54	\$24.85	\$20.15	\$25.46
	100 W HPS	•	0.07	\$25.52	\$20.96	\$26.41
	150 W HPS	odium \$20	0.86	\$26.64	\$22.16	\$27.94
	250 W HPS	•	3.38	\$29.78	\$25.71	\$32.11
	400 W HPS	odium \$26	6.06	\$33.49	\$29.71	\$37.15
	175 W Meta	al Halide \$27	7.90	\$34.07	\$29.44	\$35.61
	30-40W LED	•	0.22	\$25.09	\$20.52	\$25.39
	50-75W LED		0.91	\$25.88	\$21.40	\$26.37
	110-165W LED	•	3.96	\$29.26	\$25.13	\$30.44
	200-250W LED		7.19	\$32.94	\$29.05	\$34.80
Decorative UG	100 W HPS	•	1.67	\$39.34	\$32.56	\$40.23
	150 W HPS		2.84	\$40.75	\$34.14	\$42.05
	250 W HPS	•	4.89	\$43.53	\$37.22	\$45.86
	400 W HPS	•	7.38	\$47.10	\$41.03	\$50.76
	175 W Meta		7.38	\$47.10	\$38.92	\$48.64
Pre-Pay Option	70 W HPS		5.97	\$7.73	\$6.58	\$8.34
	100 W HPS		6.66	\$8.52	\$7.55	\$9.41
	150 W HPS		7.54	\$9.60	\$8.84	\$10.90
	250 W HPS	·	9.61	\$12.20	\$11.94	\$14.53
	400 W HPS	•	2.42	\$15.66	\$16.07	\$19.32
	175 W Meta	•	3.54	\$16.59	\$15.08	\$18.13
	30-40W LED	·	1.90	\$6.59	\$5.20	\$6.89
	50-75W LED		5.49	\$7.24	\$5.98	\$7.73
	110-165W LED	•	7.05	\$9.10	\$8.22	\$10.28
	200-250W LED	\$8	3.93	\$11.21	\$10.79	\$13.07

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 5 Page 27 of 27

		Present	Proposed	Present	Proposed
ſ	Street Lighting Energy (A32)	Base	Base Rates		+ Fuel

	Present	rioposeu	Fresent	rioposeu
Street Lighting Energy (A32)	Base	Rates	Rates	+ Fuel
100 W Mercury	\$2.45	\$3.18	\$3.41	\$4.15
175 W Mercury	\$3.64	\$4.76	\$5.18	\$6.30
250 W Mercury	\$4.94	\$6.46	\$7.10	\$8.63
400 W Mercury	\$7.69	\$10.09	\$11.18	\$13.59
700 W Mercury	\$12.78	\$16.81	\$18.72	\$22.76
1000 W Mercury	\$17.77	\$23.41	\$26.12	\$31.77
1F72HO Fluoresc	ent \$3.61	\$3.93	\$4.60	\$4.92
<30W LED	\$1.06	\$1.12	\$1.25	\$1.31
30-45W LED	\$1.34	\$1.42	\$1.64	\$1.72
50-75W LED	\$1.85	\$1.96	\$2.34	\$2.45
110-165W LED	\$3.44	\$3.77	\$4.61	\$4.94
200-250W LED	\$5.14	\$5.63	\$7.00	\$7.49
50 W HPSodiu	ım \$1.37	\$1.75	\$1.81	\$2.19
70 W HPSodiu	ım \$1.73	\$2.23	\$2.34	\$2.85
100 W HPSodiu	ım \$2.29	\$2.98	\$3.18	\$3.87
150 W HPSodiu	ım \$3.14	\$4.10	\$4.44	\$5.39
200 W HPSodiu	ım \$4.18	\$5.47	\$5.98	\$7.27
250 W HPSodiu	ım \$5.28	\$6.92	\$7.61	\$9.25
400 W HPSodiu	ım \$8.03	\$10.55	\$11.68	\$14.21
750 W HPSodiu	ım \$13.78	\$18.14	\$20.21	\$24.58

Street Lighting Energy - Metered (A34)	Base Ra	Base Rates		Fuel
Customer / Mo.	\$5.00	\$5.50	\$5.00	\$5.50
Energy Charge per kWh	4.534 ¢	5.984¢	6.750¢	8.204¢

Street Lighting Energy - City of St. Paul (A37)	Base Rates		Rates + Fuel	
100 W HPSodium	\$5.48	\$6.71	\$6.37	\$7.60
150 W HPSodium	\$6.14	\$7.57	\$7.44	\$8.87
250 W HPSodium	\$8.60	\$10.18	\$10.93	\$12.51

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 1 of 39

## RESIDENTIAL SERVICE (Overhead) - A01

	Energy	Monthly Bill		Increase	
	in kWh	Present	Proposed	Amount	Percent
	250	\$39.50	\$44.87	\$5.36	13.58%
	300	\$45.69	\$51.82	\$6.13	13.42%
	400	\$58.06	\$65.72	\$7.66	13.20%
	500	\$70.43	\$79.62	\$9.19	13.06%
	600	\$82.80	\$93.52	\$10.73	12.96%
WINTER	675	\$92.07	\$103.95	\$11.88	12.90%
	750	\$101.35	\$114.38	\$13.03	12.85%
	1000	\$132.27	\$149.13	\$16.86	12.74%
	1500	\$194.12	\$218.64	\$24.52	12.63%
	2000	\$255.97	\$288.15	\$32.18	12.57%
	3000	\$379.66	\$427.17	\$47.51	12.51%
	4000	\$503.35	\$566.19	\$62.83	12.48%
	5000	\$627.05	\$705.21	\$78.16	12.46%
	250	\$44.51	\$50.33	\$5.83	13.09%
	300	\$51.69	\$58.38	\$6.68	12.93%
	400	\$66.06	\$74.47	\$8.40	12.72%
	500	\$80.44	\$90.56	\$10.12	12.58%
	600	\$94.81	\$106.64	\$11.84	12.49%
SUMMER	675	\$105.58	\$118.71	\$13.13	12.43%
	750	\$116.36	\$130.78	\$14.41	12.39%
	1000	\$152.29	\$171.00	\$18.71	12.28%
	1500	\$224.15	\$251.44	\$27.30	12.18%
	2000	\$296.00	\$331.89	\$35.88	12.12%
	3000	\$439.71	\$492.77	\$53.06	12.07%
	4000	\$583.42	\$653.66	\$70.23	12.04%
	5000	\$727.14	\$814.55	\$87.41	12.02%
	250	\$41.17	\$46.69	\$5.52	13.40%
		\$47.69	\$46.69 \$54.00	\$5.52 \$6.31	13.40%
	300 400	\$47.69 \$60.73	\$54.00 \$68.64	क्ठ.उ । \$7.91	13.24%
	400 500	\$73.76	\$83.27	\$7.91 \$9.50	12.88%
	600	\$86.80	\$97.90	\$9.50 \$11.10	12.00%
AVERAGE	675	\$96.58	\$108.87	\$11.10 \$12.29	12.79%
MONTHLY	750	\$106.35	\$119.84	\$13.49	12.73%
IVIOINTIILT	1000	\$138.95	\$119.64 \$156.42	\$17.47	12.58%
	1500	\$204.13	\$229.57	\$25.45	12.30 %
	2000	\$269.31	\$302.73	\$33.42	12.47 %
	3000	\$399.68	\$449.04	\$49.36	12.41%
	4000	\$530.04	\$595.35	\$65.30	12.33%
	5000	\$660.41	\$741.65	\$81.24	12.32 %
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Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 2 of 39

## RESIDENTIAL SERVICE - SPACE HEATING (Overhead) - A01

	Energy	Monthly Bill		Increase	
	in kWh	Present	Proposed	Amount	Percent
	250	\$34.47	\$38.99	\$4.53	13.14%
	300	\$39.24	\$44.37	\$5.13	13.07%
	400	\$48.80	\$55.12	\$6.33	12.96%
	500	\$58.35	\$65.88	\$7.52	12.90%
	600	\$67.91	\$76.63	\$8.72	12.85%
WINTER	675	\$75.07	\$84.69	\$9.62	12.82%
	750	\$82.24	\$92.76	\$10.52	12.79%
	1000	\$106.12	\$119.64	\$13.52	12.74%
	1500	\$153.90	\$173.41	\$19.51	12.68%
	2000	\$201.67	\$227.17	\$25.50	12.65%
	3000	\$297.21	\$334.70	\$37.49	12.61%
	4000	\$392.75	\$442.23	\$49.47	12.60%
	5000	\$488.30	\$549.76	\$61.46	12.59%
	250	\$46.51	\$52.33	\$5.83	12.53%
	300	\$53.69	\$60.38	\$6.68	12.45%
	400	\$68.06	\$76.47	\$8.40	12.34%
	500	\$82.44	\$92.56	\$10.12	12.28%
	600	\$96.81	\$108.64	\$11.84	12.23%
SUMMER	675	\$107.58	\$120.71	\$13.13	12.20%
COMMER	750	\$118.36	\$132.78	\$14.41	12.18%
	1000	\$154.29	\$173.00	\$18.71	12.12%
	1500	\$226.15	\$253.44	\$27.30	12.07%
	2000	\$298.00	\$333.89	\$35.88	12.04%
	3000	\$441.71	\$494.77	\$53.06	12.01%
	4000	\$585.42	\$655.66	\$70.23	12.00%
	5000	\$729.14	\$816.55	\$87.41	11.99%
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	250	\$38.48	\$43.44	\$4.96	12.89%
	300	\$44.06	\$49.71	\$5.65	12.82%
	400	\$55.22	\$62.24	\$7.02	12.71%
	500	\$66.38	\$02.24 \$74.77	\$8.39	12.71%
	600	\$77.54	\$87.30	\$9.76	12.59%
AVERAGE	675	\$85.91	\$96.70	\$10.79	12.56%
MONTHLY		\$94.28	\$106.10	\$10.79 \$11.82	12.54%
WONTHLI	750 1000	\$94.26 \$122.18	\$100.10 \$137.43	\$11.02 \$15.25	12.34%
	1500	\$122.16 \$177.98	\$200.08	\$15.25 \$22.11	12.40%
	2000	\$233.78	\$200.08 \$262.74	\$28.96	12.42 %
	3000	\$345.38	\$388.06	\$42.68	12.36%
	4000	\$456.98	\$505.00 \$513.37	\$56.39	12.34%
		\$568.58	\$638.69	\$70.11	12.34%
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# Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 3 of 39

## RESIDENTIAL SERVICE (Underground) - A03

	Energy	Monthly Bill		Increa	ase
	in kWh	Present	Proposed	Amount	Percent
		<b>.</b>	<b>*</b> ·	<b>A</b>	
	250	\$41.50	\$46.87	\$5.36	12.92%
	300	\$47.69	\$53.82	\$6.13	12.85%
	400	\$60.06	\$67.72	\$7.66	12.76%
	500	\$72.43	\$81.62	\$9.19	12.70%
	600	\$84.80	\$95.52	\$10.73	12.65%
WINTER	675	\$94.07	\$105.95	\$11.88	12.63%
	750	\$103.35	\$116.38	\$13.03	12.60%
	1000	\$134.27	\$151.13	\$16.86	12.55%
	1500	\$196.12	\$220.64	\$24.52	12.50%
	2000	\$257.97	\$290.15	\$32.18	12.48%
	3000	\$381.66	\$429.17	\$47.51	12.45%
	4000	\$505.35	\$568.19	\$62.83	12.43%
	5000	\$629.05	\$707.21	\$78.16	12.43%
	250	\$46.51	\$52.33	\$5.83	12.53%
	300	\$53.69	\$60.38	\$6.68	12.45%
	400	\$68.06	\$76.47	\$8.40	12.34%
	500	\$82.44	\$92.56	\$10.12	12.28%
	600	\$96.81	\$108.64	\$11.84	12.23%
SUMMER	675	\$107.58	\$120.71	\$13.13	12.20%
	750	\$118.36	\$132.78	\$14.41	12.18%
	1000	\$154.29	\$173.00	\$18.71	12.12%
	1500	\$226.15	\$253.44	\$27.30	12.07%
	2000	\$298.00	\$333.89	\$35.88	12.04%
	3000	\$441.71	\$494.77	\$53.06	12.01%
	4000	\$585.42	\$655.66	\$70.23	12.00%
	5000	\$729.14	\$816.55	\$87.41	11.99%
	250	\$43.17	\$48.69	\$5.52	12.78%
	300	\$49.69	\$56.00	\$6.31	12.71%
	400	\$62.73	\$70.64	\$7.91	12.61%
	500	\$75.76	\$85.27	\$9.50	12.54%
	600	\$88.80	\$99.90	\$11.10	12.50%
AVERAGE	675	\$98.58	\$110.87	\$12.29	12.47%
MONTHLY	750	\$108.35	\$121.84	\$13.49	12.45%
	1000	\$140.95	\$158.42	\$17.47	12.40%
	1500	\$206.13	\$231.57	\$25.45	12.34%
	2000	\$271.31	\$304.73	\$33.42	12.32%
	3000	\$401.68	\$451.04	\$49.36	12.29%
	4000	\$532.04	\$597.35	\$65.30	12.27%
	5000	\$662.41	\$743.65	\$81.24	12.26%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 4 of 39

## RESIDENTIAL SERVICE - SPACE HEATING (Underground) - A03

	Energy	Monthly Bill		Increase		
	in kWh	Present	Proposed	Amount	Percent	
			·			
	250	\$36.47	\$40.99	\$4.53	12.42%	
	300	\$41.24	\$46.37	\$5.13	12.43%	
	400	\$50.80	\$57.12	\$6.33	12.45%	
	500	\$60.35	\$67.88	\$7.52	12.47%	
	600	\$69.91	\$78.63	\$8.72	12.48%	
WINTER	675	\$77.07	\$86.69	\$9.62	12.48%	
	750	\$84.24	\$94.76	\$10.52	12.49%	
	1000	\$108.12	\$121.64	\$13.52	12.50%	
	1500	\$155.90	\$175.41	\$19.51	12.52%	
	2000	\$203.67	\$229.17	\$25.50	12.52%	
	3000	\$299.21	\$336.70	\$37.49	12.53%	
	4000	\$394.75	\$444.23	\$49.47	12.53%	
	5000	\$490.30	\$551.76	\$61.46	12.54%	
	250	\$48.51	\$54.33	\$5.83	12.01%	
	300	\$55.69	\$62.38	\$6.68	12.00%	
	400	\$70.06	\$78.47	\$8.40	11.99%	
	500	\$84.44	\$94.56	\$10.12	11.99%	
	600	\$98.81	\$110.64	\$11.84	11.98%	
SUMMER	675	\$109.58	\$122.71	\$13.13	11.98%	
	750	\$120.36	\$134.78	\$14.41	11.98%	
	1000	\$156.29	\$175.00	\$18.71	11.97%	
	1500	\$228.15	\$255.44	\$27.30	11.96%	
	2000	\$300.00	\$335.89	\$35.88	11.96%	
	3000	\$443.71	\$496.77	\$53.06	11.96%	
	4000	\$587.42	\$657.66	\$70.23	11.96%	
	5000	\$731.14	\$818.55	\$87.41	11.96%	
		<b>*</b> 1.5.11.1	40.000	<b>4</b> 0		
	250	\$40.48	\$45.44	\$4.96	12.26%	
	300	\$46.06	\$51.71	\$5.65	12.26%	
	400	\$57.22	\$64.24	\$7.02	12.27%	
	500	\$68.38	\$76.77	\$8.39	12.27%	
	600	\$79.54	\$89.30	\$9.76	12.27%	
AVERAGE	675	\$87.91	\$98.70	\$10.79	12.27%	
MONTHLY	750	\$96.28	\$108.10	\$11.82	12.28%	
	1000	\$124.18	\$139.43	\$15.25	12.28%	
	1500	\$179.98	\$202.08	\$22.11	12.28%	
	2000	\$235.78	\$264.74	\$28.96	12.28%	
	3000	\$347.38	\$390.06	\$42.68	12.29%	
	4000	\$458.98	\$515.37	\$56.39	12.29%	
	5000	\$570.58	\$640.69	\$70.11	12.29%	
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Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 5 of 39

## RESIDENTIAL TIME OF DAY SERVICE (Overhead) - A02

	Energy	Monthly Bill		Increase		
	in kWh	Present	Proposed	Amount	Percent	
	III KVVII	Flesent	Proposed	Amount	reiceiii	
	250	\$40.72	\$45.84	\$5.13	12.59%	
	300	\$46.74	\$52.59	\$5.13 \$5.84	12.59%	
		\$58.80		\$7.28		
	400		\$66.08 \$70.57		12.38%	
	500	\$70.85	\$79.57	\$8.72	12.31%	
WINTED	600	\$82.91	\$93.06	\$10.16	12.25%	
WINTER	675	\$91.95	\$103.18	\$11.23	12.22%	
	750	\$100.99	\$113.30	\$12.31	12.19%	
	1000	\$131.13	\$147.03	\$15.91	12.13%	
	1500	\$191.40	\$214.49	\$23.09	12.07%	
	2000	\$251.67	\$281.95	\$30.28	12.03%	
	3000	\$372.22	\$416.87	\$44.65	12.00%	
	4000	\$492.77	\$551.79	\$59.03	11.98%	
	5000	\$613.31	\$686.71	\$73.40	11.97%	
	250	\$45.47	\$51.00	\$5.54	12.18%	
	300	\$52.44	\$58.78	\$6.34	12.08%	
	400	\$66.40	\$74.34	\$7.94	11.96%	
	500	\$80.35	\$89.89	\$9.54	11.87%	
	600	\$94.31	\$105.45	\$11.14	11.81%	
SUMMER	675	\$104.77	\$117.12	\$12.34	11.78%	
SOMMEN	750	\$115.24	\$128.78	\$13.54	11.75%	
	1000	\$150.13	\$167.67	\$17.55	11.69%	
	1500	\$219.90	\$245.46	\$17.55 \$25.56	11.62%	
				\$33.57		
	2000	\$289.67	\$323.24		11.59%	
	3000	\$429.22	\$478.80	\$49.58 \$65.60	11.55%	
	4000	\$568.76	\$634.36	\$65.60	11.53%	
	5000	\$708.31	\$789.92	\$81.61	11.52%	
		0.40.00	0.47.50	<b>#</b> 5.00	10.440/	
	250	\$42.30	\$47.56	\$5.26	12.44%	
	300	\$48.64	\$54.65	\$6.01	12.35%	
	400	\$61.33	\$68.83	\$7.50	12.23%	
	500	\$74.02	\$83.01	\$8.99	12.15%	
	600	\$86.71	\$97.19	\$10.48	12.09%	
AVERAGE	675	\$96.22	\$107.83	\$11.60	12.06%	
MONTHLY	750	\$105.74	\$118.46	\$12.72	12.03%	
	1000	\$137.46	\$153.91	\$16.45	11.97%	
	1500	\$200.90	\$224.81	\$23.91	11.90%	
	2000	\$264.34	\$295.71	\$31.37	11.87%	
	3000	\$391.22	\$437.51	\$46.30	11.83%	
	4000	\$518.10	\$579.32	\$61.22	11.82%	
	5000	\$644.98	\$721.12	\$76.14	11.80%	
		·	•	•		

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 6 of 39

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

	F	Manth	D:II	65% OII-Peak	
	Energy	Monthl	•	Incre	
	in kWh	Present	Proposed	Amount	Percent
	050	<b>COO</b> 40	<b>#40.05</b>	Φ4.45	40.000/
	250	\$36.40	\$40.85	\$4.45	12.23%
	300	\$41.16	\$46.20	\$5.04	12.24%
	400	\$50.68	\$56.89	\$6.20	12.24%
	500	\$60.21	\$67.58	\$7.37	12.25%
	600	\$69.74	\$78.28	\$8.54	12.25%
WINTER	675	\$76.88	\$86.30	\$9.42	12.25%
	750	\$84.03	\$94.32	\$10.29	12.25%
	1000	\$107.84	\$121.06	\$13.21	12.25%
	1500	\$155.47	\$174.53	\$19.06	12.26%
	2000	\$203.10	\$228.00	\$24.90	12.26%
	3000	\$298.37	\$334.95	\$36.58	12.26%
	4000	\$393.63	\$441.89	\$48.26	12.26%
	5000	\$488.89	\$548.84	\$59.94	12.26%
	250	\$47.47	\$53.00	\$5.54	11.66%
	300	\$54.44	\$60.78	\$6.34	11.64%
	400	\$68.40	\$76.34	\$7.94	11.61%
	500	\$82.35	\$91.89	\$9.54	11.58%
	600	\$96.31	\$107.45	\$11.14	11.57%
SUMMER	675	\$106.77	\$119.12	\$12.34	11.56%
	750	\$117.24	\$130.78	\$13.54	11.55%
	1000	\$152.13	\$169.67	\$17.55	11.54%
	1500	\$221.90	\$247.46	\$25.56	11.52%
	2000	\$291.67	\$325.24	\$33.57	11.51%
	3000	\$431.22	\$480.80	\$49.58	11.50%
	4000	\$570.76	\$636.36	\$65.60	11.49%
	5000	\$710.31	\$791.92	\$81.61	11.49%
	0000	Ψ7 10.01	Ψ/01.02	φοιισι	111.1070
	250	\$40.09	\$44.90	\$4.81	12.01%
	300	\$45.59	\$51.06	\$5.47	12.00%
	400	\$56.59	\$63.37	\$6.78	11.99%
	500	\$67.59	\$75.69	\$8.10	11.98%
	600	\$78.59	\$88.00	\$9.41	11.97%
AVERAGE	675	\$86.85	\$97.24	\$10.39	11.97%
MONTHLY	750	\$95.10	\$106.47	\$11.38	11.96%
	1000	\$122.60	\$137.26	\$14.66	11.96%
	1500	\$177.62	\$198.84	\$21.22	11.95%
	2000	\$232.63	\$260.41	\$27.79	11.94%
	3000	\$342.65	\$383.56	\$40.91	11.94%
	4000	\$452.67	\$506.71	\$54.04	11.94%
	5000	\$562.70	\$629.86	\$67.17	11.94%
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# Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 7 of 39

### **SMALL GENERAL SERVICE**

	Energy	Month	nly Bill	Increase	
	in kWh	Present	Proposed	Amount	Percent
	250	\$39.17	\$43.04	\$3.87	9.89%
	300	\$44.85	\$49.21	\$4.36	9.71%
	400	\$56.21	\$61.53	\$5.32	9.47%
	500	\$67.56	\$73.85	\$6.29	9.30%
WINTER	600	\$78.92	\$86.17	\$7.25	9.19%
	750	\$95.95	\$104.65	\$8.70	9.06%
	1000	\$124.35	\$135.46	\$11.11	8.93%
	1500	\$181.13	\$197.06	\$15.94	8.80%
	2000	\$237.91	\$258.67	\$20.76	8.73%
	3000	\$351.48	\$381.89	\$30.41	8.65%
	4000	\$465.04	\$505.10	\$40.06	8.61%
	5000	\$578.61	\$628.32	\$49.71	8.59%
	250	\$44.19	\$48.52	\$4.33	9.79%
	300	\$50.88	\$55.78	\$4.90	9.63%
	400	\$64.24	\$70.29	\$6.04	9.41%
	500	\$77.61	\$84.80	\$7.19	9.26%
SUMMER	600	\$90.97	\$99.31	\$8.34	9.16%
COMMEN	750	\$111.02	\$121.08	\$10.05	9.06%
	1000	\$144.44	\$157.36	\$12.92	8.94%
	1500	\$211.27	\$229.91	\$18.65	8.83%
	2000	\$278.09	\$302.47	\$24.38	8.77%
	3000	\$411.75	\$447.58	\$35.83	8.70%
	4000	\$545.41	\$592.70	\$47.29	8.67%
	5000	\$679.07	\$737.81	\$58.75	8.65%
	0000	φ070.07	Ψ/ Ο/ .Ο Ι	φοσ.7 σ	0.0070
	250	\$40.85	\$44.87	\$4.02	9.85%
	300	\$46.86	\$51.40	\$4.54	9.68%
	400	\$58.89	\$64.45	\$5.56	9.44%
		\$70.91	\$77.50	•	9.44%
AVERAGE	500 600	\$82.94	\$90.55	\$6.59 \$7.61	9.29%
MONTHLY		\$100.98		\$9.15	
IVIONIALI	750 1000	\$100.96 \$131.04	\$110.13 \$142.76	\$9.15 \$11.71	9.06% 8.94%
	1500	\$131.0 <del>4</del> \$191.17	\$208.01	\$11.71 \$16.84	8.81%
	2000	\$191.17 \$251.31	\$206.01 \$273.27	\$21.97	8.74%
	3000	\$251.31 \$371.57	\$403.79	\$32.22	8.74% 8.67%
		\$371.57 \$491.83	\$534.30	\$32.22 \$42.47	
	4000				8.63% 8.61%
	5000	\$612.10	\$664.82	\$52.72	8.61%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 8 of 39

# **GENERAL SERVICE (Secondary Voltage)**

Demand	Energy	Ī	Month	ly Bill	Incre	ase
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
		•				-
15	3,000	200	\$423.71	\$472.81	\$49.10	11.59%
15	6,000	400	\$625.09	\$701.31	\$76.22	12.19%
15	9,000	600	\$780.94	\$877.22	\$96.29	12.33%
25	5,000	200	\$687.52	\$769.58	\$82.05	11.93%
25	10,000	400	\$1,023.17	\$1,150.42	\$127.25	12.44%
25	15,000	600	\$1,282.91	\$1,443.61	\$160.69	12.53%
50	10,000	200	\$1,347.07	\$1,511.50	\$164.43	12.21%
50	20,000	400	\$2,018.35	\$2,273.18	\$254.82	12.63%
50	30,000	600	\$2,537.84	\$2,859.56	\$321.71	12.68%
75	15,000	200	\$2,006.61	\$2,253.42	\$246.81	12.30%
75	30,000	400	\$3,013.54	\$3,395.94	\$382.40	12.69%
75	45,000	600	\$3,792.77	\$4,275.51	\$482.73	12.73%
100	20,000	200	\$2,666.16	\$2,995.34	\$329.19	12.35%
100	40,000	400	\$4,008.73	\$4,518.70	\$509.97	12.72%
100	60,000	600	\$5,047.70	\$5,691.46	\$643.76	12.75%
200	40,000	200	\$5,304.33	\$5,963.04	\$658.71	12.42%
200	80,000	400	\$7,989.48	\$9,009.75	\$1,020.27	12.77%
200	120,000	600	\$10,067.43	\$11,355.27	\$1,287.84	12.79%
300	60,000	200	\$7,942.51	\$8,930.73	\$988.22	12.44%
300	120,000	400	\$11,970.23	\$13,500.80	\$1,530.57	12.79%
300	180,000	600	\$15,087.15	\$17,019.07	\$1,931.92	12.81%
400	80,000	200	\$10,580.68	\$11,898.42	\$1,317.74	12.45%
400	160,000	400	\$15,950.98	\$17,991.85	\$2,040.87	12.79%
400	240,000	600	\$20,106.88	\$22,682.88	\$2,576.00	12.81%
500	100,000	200	\$13,218.86	\$14,866.11	\$1,647.25	12.46%
500	200,000	400	\$19,931.73	\$22,482.90	\$2,551.17	12.80%
500	300,000	600	\$25,126.60	\$28,346.68	\$3,220.08	12.82%
750	150,000	200	\$19,814.29	\$22,285.34	\$2,471.04	12.47%
750	300,000	400	\$29,883.60	\$33,710.52	\$3,826.91	12.81%
750	450,000	600	\$37,675.91	\$42,506.20	\$4,830.29	12.82%
1,000	200,000	200	\$26,409.73	\$29,704.56	\$3,294.83	12.48%
1,000	400,000	400	\$39,835.48	\$44,938.14	\$5,102.66	12.81%
1,000	600,000	600	\$50,225.23	\$56,665.72	\$6,440.49	12.82%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 9 of 39

### **GENERAL SERVICE (Primary Voltage)**

### Monthly Bill Demand **Energy Increase** in kW in kWh Hours Present Proposed **Amount** Percent 15 3,000 200 \$408.56 \$458.50 \$49.94 12.22% 6,000 15 400 \$606.79 \$683.19 \$76.40 12.59% 15 9.000 600 \$759.49 \$855.29 \$95.81 12.61% 25 5,000 200 \$662.27 \$745.73 \$83.45 12.60% 25 10,000 400 \$992.67 \$1,120.22 \$127.55 12.85% 25 15,000 \$1,247.16 12.82% 600 \$1,407.06 \$159.89 50 10,000 200 \$1,296.57 \$1,463.80 \$167.23 12.90% 50 20,000 13.05% 400 \$1,957.35 \$2,212.78 \$255.42 50 30,000 600 \$2,466.34 \$2,786.46 \$320.11 12.98% 75 15,000 13.00% 200 \$1,930.86 \$2,181.87 \$251.01 75 30,000 400 \$2,922.04 \$3,305.34 \$383.30 13.12% 75 45,000 600 \$3,685.52 \$4,165.86 \$480.33 13.03% 100 20,000 200 \$2,565.16 \$2,899.94 \$334.79 13.05% 100 40,000 400 \$3,886.73 \$4,397.90 \$511.17 13.15% 100 60,000 600 \$4,904.70 \$5,545.26 \$640.56 13.06% 200 40,000 200 \$5,102.33 \$5,772.24 \$669.91 13.13% 200 80,000 400 \$7,745.48 \$8,768.15 \$1,022.67 13.20% 200 120,000 600 \$9,781.43 \$11,062.87 \$1,281.44 13.10% 300 60,000 200 \$8,644.53 \$7,639.51 \$1,005.02 13.16% 300 120,000 400 \$11,604.23 \$13,138.40 \$1,534.17 13.22% 300 180,000 600 \$14,658.15 \$16,580.47 \$1,922.32 13.11% 400 80,000 200 \$10,176.68 \$11,516.82 \$1,340.14 13.17% 400 160,000 400 \$15,462.98 \$17,508.65 \$2,045.67 13.23% 400 240,000 600 \$19,534.88 \$22,098.08 \$2,563.20 13.12% 500 100,000 200 \$12,713.86 \$14,389.11 \$1,675.25 13.18% 200,000 500 400 \$19,321.73 \$21,878.90 \$2,557.17 13.23% 500 300,000 600 \$24,411.60 \$27,615.68 13.13% \$3,204.08 150,000 750 200 \$19,056.79 \$21,569.84 \$2,513.04 13.19% 750 300,000 400 \$28,968.60 \$32,804.52 \$3,835.91 13.24% 750 450,000 600 \$36,603.41 \$41,409.70 \$4,806.29 13.13% 1,000 200,000 200 \$25,399.73 \$28,750.56 13.19% \$3,350.83 400 1,000 400,000 \$38,615.48 \$43,730.14 \$5,114.66 13.25% 1,000 600,000 600 \$48,795.23 \$55,203.72 \$6,408.49 13.13%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 10 of 39

## **GENERAL TOD SERVICE (Secondary Voltage)**

Demand	Energy	Г	Month	nly Bill	Incre	ase
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
				Поросси	7 0	. 0.00
15	3,000	200	\$425.14	\$473.99	\$48.85	11.49%
15	6,000	400	\$623.97	\$699.68	\$75.71	12.13%
15	9,000	600	\$777.25	\$872.78	\$95.53	12.29%
25	5,000	200	\$687.25	\$768.89	\$81.63	11.88%
25	10,000	400	\$1,018.63	\$1,145.03	\$126.41	12.41%
25	15,000	600	\$1,274.10	\$1,433.53	\$159.43	12.51%
50	10,000	200	\$1,342.53	\$1,506.12	\$163.59	12.19%
50	20,000	400	\$2,005.27	\$2,258.42	\$253.14	12.62%
50	30,000	600	\$2,516.22	\$2,835.41	\$319.19	12.69%
75	15,000	200	\$1,997.80	\$2,243.35	\$245.55	12.29%
75	30,000	400	\$2,991.92	\$3,371.80	\$379.87	12.70%
75	45,000	600	\$3,758.34	\$4,237.29	\$478.95	12.74%
100	20,000	200	\$2,653.07	\$2,980.58	\$327.51	12.34%
100	40,000	400	\$3,978.57	\$4,485.18	\$506.61	12.73%
100	60,000	600	\$5,000.46	\$5,639.17	\$638.71	12.77%
200	40,000	200	\$5,274.17	\$5,929.51	\$655.34	12.43%
200	80,000	400	\$7,925.16	\$8,938.70	\$1,013.54	12.79%
200	120,000	600	\$9,968.95	\$11,246.69	\$1,277.74	12.82%
300	60,000	200	\$7,895.26	\$8,878.44	\$983.17	12.45%
300	120,000	400	\$11,871.75	\$13,392.22	\$1,520.48	12.81%
300	180,000	600	\$14,937.43	\$16,854.21	\$1,916.78	12.83%
500	100,000	200	\$13,137.45	\$14,776.30	\$1,638.84	12.47%
500	200,000	400	\$19,764.93	\$22,299.27	\$2,534.35	12.82%
500	300,000	600	\$24,874.40	\$28,069.25	\$3,194.85	12.84%
1,000	200,000	200	\$26,242.93	\$29,520.94	\$3,278.01	12.49%
1,000	400,000	400	\$39,497.87	\$44,566.89	\$5,069.02	12.83%
1,000	600,000	600	\$49,716.81	\$56,106.84	\$6,390.02	12.85%
3,000	600,000	200	\$78,664.82	\$88,499.50	\$9,834.68	12.50%
3,000	1,200,000	400	\$118,429.65	\$133,637.36	\$15,207.71	12.84%
3,000	1,800,000	600	\$149,086.48	\$168,257.21	\$19,170.73	12.86%
5,000	1,000,000	200	\$131,086.71	\$147,478.07	\$16,391.36	12.50%
5,000	2,000,000	400	\$197,361.43	\$222,707.82	\$25,346.39	12.84%
5,000	3,000,000	600	\$248,456.15	\$280,407.58	\$31,951.43	12.86%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 11 of 39

# **GENERAL TOD SERVICE (Primary Voltage)**

Demand	Energy	Ī	Mont	hly Bill	Incre	ase
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
		•				
15	3,000	200	\$409.99	\$459.68	\$49.69	12.12%
15	6,000	400	\$605.67	\$681.56	\$75.89	12.53%
15	9,000	600	\$755.80	\$850.85	\$95.05	12.58%
25	5,000	200	\$662.00	\$745.04	\$83.03	12.54%
25	10,000	400	\$988.13	\$1,114.83	\$126.71	12.82%
25	15,000	600	\$1,238.35	\$1,396.98	\$158.63	12.81%
50	10,000	200	\$1,292.03	\$1,458.42	\$166.39	12.88%
50	20,000	400	\$1,944.27	\$2,198.02	\$253.74	13.05%
50	30,000	600	\$2,444.72	\$2,762.31	\$317.59	12.99%
75	15,000	200	\$1,922.05	\$2,171.80	\$249.75	12.99%
75	30,000	400	\$2,900.42	\$3,281.20	\$380.77	13.13%
75	45,000	600	\$3,651.09	\$4,127.64	\$476.55	13.05%
100	20,000	200	\$2,552.07	\$2,885.18	\$333.11	13.05%
100	40,000	400	\$3,856.57	\$4,364.38	\$507.81	13.17%
100	60,000	600	\$4,857.46	\$5,492.97	\$635.51	13.08%
200	40,000	200	\$5,072.17	\$5,738.71	\$666.54	13.14%
200	80,000	400	\$7,681.16	\$8,697.10	\$1,015.94	13.23%
200	120,000	600	\$9,682.95	\$10,954.29	\$1,271.34	13.13%
300	60,000	200	\$7,592.26	\$8,592.24	\$999.97	13.17%
300	120,000	400	\$11,505.75	\$13,029.82	\$1,524.08	13.25%
300	180,000	600	\$14,508.43	\$16,415.61	\$1,907.18	13.15%
500	100,000	200	\$12,632.45	\$14,299.30	\$1,666.84	13.19%
500	200,000	400	\$19,154.93	\$21,695.27	\$2,540.35	13.26%
500	300,000	600	\$24,159.40	\$27,338.25	\$3,178.85	13.16%
1,000	200,000	200	\$25,232.93	\$28,566.94	\$3,334.01	13.21%
1,000	400,000	400	\$38,277.87	\$43,358.89	\$5,081.02	13.27%
1,000	600,000	600	\$48,286.81	\$54,644.84	\$6,358.02	13.17%
3,000	600,000	200	\$75,634.82	\$85,637.50	\$10,002.68	13.22%
3,000	1,200,000	400	\$114,769.65	\$130,013.36	\$15,243.71	13.28%
3,000	1,800,000	600	\$144,796.48	\$163,871.21	\$19,074.73	13.17%
5,000	1,000,000	200	\$126,036.71	\$142,708.07	\$16,671.36	13.23%
5,000	2,000,000	400	\$191,261.43	\$216,667.82	\$25,406.39	13.28%
5,000	3,000,000	600	\$241,306.15	\$273,097.58	\$31,791.43	13.17%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 12 of 39

## **GENERAL TOD SERVICE (**Transmission Transformed Voltage)

Demand	Energy	Г	Month	nly Bill	Incre	OII-Peak
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
III KVV	III KVVII	Hours	Fiesent	FToposeu	Amount	reicent
15	3,000	200	\$393.88	\$438.68	\$44.80	11.37%
15	6,000	400	\$584.70	\$655.31	\$70.61	12.08%
15	9,000	600	\$729.97	\$819.35	\$89.38	12.24%
25	5,000	200	\$635.15	\$710.04	\$74.88	11.79%
25	10,000	400	\$953.18	\$1,071.08	\$117.91	12.37%
25	15,000	600	\$1,195.30	\$1,344.48	\$149.18	12.48%
50	10,000	200	\$1,238.33	\$1,388.42	\$150.09	12.12%
50	20,000	400	\$1,874.37	\$2,110.52	\$236.14	12.60%
50	30,000	600	\$2,358.62	\$2,657.31	\$298.69	12.66%
75	15,000	200	\$1,841.50	\$2,066.80	\$225.30	12.23%
75	30,000	400	\$2,795.57	\$3,149.95	\$354.37	12.68%
75	45,000	600	\$3,521.94	\$3,970.14	\$448.20	12.73%
100	20,000	200	\$2,444.67	\$2,745.18	\$300.51	12.29%
100	40,000	400	\$3,716.77	\$4,189.38	\$472.61	12.72%
100	60,000	600	\$4,685.26	\$5,282.97	\$597.71	12.76%
200	40,000	200	\$4,857.37	\$5,458.71	\$601.34	12.38%
200	80,000	400	\$7,401.56	\$8,347.10	\$945.54	12.77%
200	120,000	600	\$9,338.55	\$10,534.29	\$1,195.74	12.80%
300	60,000	200	\$7,270.06	\$8,172.24	\$902.17	12.41%
300	120,000	400	\$11,086.35	\$12,504.82	\$1,418.48	12.79%
300	180,000	600	\$13,991.83	\$15,785.61	\$1,793.78	12.82%
500	100,000	200	\$12,095.45	\$13,599.30	\$1,503.84	12.43%
500	200,000	400	\$18,455.93	\$20,820.27	\$2,364.35	12.81%
500	300,000	600	\$23,298.40	\$26,288.25	\$2,989.85	12.83%
1,000	200,000	200	\$24,158.93	\$27,166.94	\$3,008.01	12.45%
1,000	400,000	400	\$36,879.87	\$41,608.89	\$4,729.02	12.82%
1,000	600,000	600	\$46,564.81	\$52,544.84	\$5,980.02	12.84%
3,000	600,000	200	\$72,412.82	\$81,437.50	\$9,024.68	12.46%
3,000	1,200,000	400	\$110,575.65	\$124,763.36	\$14,187.71	12.83%
3,000	1,800,000	600	\$139,630.48	\$157,571.21	\$17,940.73	12.85%
5,000	1,000,000	200	\$120,666.71	\$135,708.07	\$15,041.36	12.47%
5,000	2,000,000	400	\$184,271.43	\$207,917.82	\$23,646.39	12.83%
5,000	3,000,000	600	\$232,696.15	\$262,597.58	\$29,901.43	12.85%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 13 of 39

**GENERAL TOD SERVICE** (Transmission Voltage) 40% On-Peak 60% Off-Peak

Demand	Energy		Month	nly Bill	Incre	ase
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
		-				
15	3,000	200	\$381.58	\$427.10	\$45.52	11.93%
15	6,000	400	\$572.10	\$643.40	\$71.30	12.46%
15	9,000	600	\$717.07	\$807.11	\$90.04	12.56%
25	5,000	200	\$614.65	\$690.74	\$76.08	12.38%
25	10,000	400	\$932.18	\$1,051.23	\$119.06	12.77%
25	15,000	600	\$1,173.80	\$1,324.08	\$150.28	12.80%
50	10,000	200	\$1,197.33	\$1,349.82	\$152.49	12.74%
50	20,000	400	\$1,832.37	\$2,070.82	\$238.44	13.01%
50	30,000	600	\$2,315.62	\$2,616.51	\$300.89	12.99%
75	15,000	200	\$1,780.00	\$2,008.90	\$228.90	12.86%
75	30,000	400	\$2,732.57	\$3,090.40	\$357.82	13.09%
75	45,000	600	\$3,457.44	\$3,908.94	\$451.50	13.06%
100	20,000	200	\$2,362.67	\$2,667.98	\$305.31	12.92%
100	40,000	400	\$3,632.77	\$4,109.98	\$477.21	13.14%
100	60,000	600	\$4,599.26	\$5,201.37	\$602.11	13.09%
200	40,000	200	\$4,693.37	\$5,304.31	\$610.94	13.02%
200	80,000	400	\$7,233.56	\$8,188.30	\$954.74	13.20%
200	120,000	600	\$9,166.55	\$10,371.09	\$1,204.54	13.14%
300	60,000	200	\$7,024.06	\$7,940.64	\$916.57	13.05%
300	120,000	400	\$10,834.35	\$12,266.62	\$1,432.28	13.22%
300	180,000	600	\$13,733.83	\$15,540.81	\$1,806.98	13.16%
500	100,000	200	\$11,685.45	\$13,213.30	\$1,527.84	13.07%
500	200,000	400	\$18,035.93	\$20,423.27	\$2,387.35	13.24%
500	300,000	600	\$22,868.40	\$25,880.25	\$3,011.85	13.17%
1,000	200,000	200	\$23,338.93	\$26,394.94	\$3,056.01	13.09%
1,000	400,000	400	\$36,039.87	\$40,814.89	\$4,775.02	13.25%
1,000	600,000	600	\$45,704.81	\$51,728.84	\$6,024.02	13.18%
3,000	600,000	200	\$69,952.82	\$79,121.50	\$9,168.68	13.11%
3,000	1,200,000	400	\$108,055.65	\$122,381.36	\$14,325.71	13.26%
3,000	1,800,000	600	\$137,050.48	\$155,123.21	\$18,072.73	13.19%
5,000	1,000,000	200	\$116,566.71	\$131,848.07	\$15,281.36	13.11%
5,000	2,000,000	400	\$180,071.43	\$203,947.82	\$23,876.39	13.26%
5,000	3,000,000	600	\$228,396.15	\$258,517.58	\$30,121.43	13.19%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 14 of 39

# RESIDENTIAL SERVICE (Overhead) - A01

	Energy	Mont	hly Bill	Incre	ase
	in kWh	Present	Proposed	Amount	Percent
			·		
	250	\$39.33	\$46.10	\$6.77	17.21%
	300	\$45.48	\$53.30	\$7.82	17.19%
	400	\$57.78	\$67.69	\$9.91	17.15%
	500	\$70.08	\$82.08	\$12.01	17.13%
	600	\$82.38	\$96.48	\$14.10	17.12%
WINTER	675	\$91.60	\$107.28	\$15.67	17.11%
	750	\$100.83	\$118.07	\$17.24	17.10%
	1000	\$131.58	\$154.06	\$22.48	17.08%
	1500	\$193.08	\$226.03	\$32.95	17.07%
	2000	\$254.58	\$298.00	\$43.43	17.06%
	3000	\$377.57	\$441.95	\$64.38	17.05%
	4000	\$500.57	\$585.90	\$85.32	17.05%
	5000	\$623.57	\$729.84	\$106.27	17.04%
	0000	ψ020.07	Ψ120.01	Ψ100.27	17.0170
	250	\$44.33	\$51.67	\$7.34	16.55%
	300	\$51.48	\$59.98	\$8.50	16.50%
	400	\$65.79	\$76.61	\$10.82	16.45%
	500	\$80.09	\$93.23	\$13.14	16.41%
	600	\$94.39	\$109.85	\$15.46	16.38%
SUMMER	675	\$105.12	\$122.32	\$17.20	16.37%
OOMMER	750	\$115.84	\$134.79	\$18.95	16.35%
	1000	\$151.60	\$176.35	\$24.75	16.33%
	1500	\$223.10	\$259.46	\$36.36	16.30%
	2000	\$294.61	\$342.58	\$47.97	16.28%
	3000	\$437.63	\$508.81	\$71.19	16.27%
	4000	\$580.64	\$675.05	\$94.40	16.26%
	5000	\$723.66	\$841.28	\$117.62	16.25%
	3000	Ψ120.00	ψ0+1.20	Ψ117.02	10.2070
	250	\$41.00	\$47.96	\$6.96	16.97%
	300	\$47.48	\$55.52	\$8.04	16.94%
	400	\$60.45	\$70.66	\$10.21	16.90%
	500	\$73.42	\$85.80	\$12.38	16.87%
	600	\$86.38	\$100.94	\$14.55	16.85%
AVERAGE	675	\$96.11	\$112.29	\$16.18	16.84%
MONTHLY	750	\$105.83	\$123.64	\$17.81	16.83%
WOITHE	1000	\$138.25	\$161.49	\$23.24	16.81%
	1500	\$203.09	\$237.17	\$34.09	16.79%
	2000	\$267.92	\$312.86	\$44.94	16.77%
	3000	\$397.59	\$464.24	\$66.65	16.76%
	4000	\$527.26	\$615.61	\$88.35	16.76%
	5000	\$656.93	\$766.99	\$110.06	16.75%
	0000	ψ000.00	Ψ1 00.00	Ψ110.00	10.70

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 15 of 39

## RESIDENTIAL SERVICE - SPACE HEATING (Overhead) - A01

	Energy	Month	ly Bill	Increase	
	in kWh	Present	Proposed	Amount	Percent
	250	\$34.29	\$40.19	\$5.90	17.21%
	300	\$39.03	\$45.81	\$6.78	17.36%
	400	\$48.52	\$57.04	\$8.52	17.57%
	500	\$58.00	\$68.27	\$10.27	17.71%
	600	\$67.49	\$79.51	\$12.02	17.81%
WINTER	675	\$74.60	\$87.93	\$13.33	17.87%
	750	\$81.72	\$96.36	\$14.64	17.92%
	1000	\$105.43	\$124.44	\$19.01	18.03%
	1500	\$152.85	\$180.60	\$27.75	18.15%
	2000	\$200.28	\$236.76	\$36.49	18.22%
	3000	\$295.12	\$349.09	\$53.97	18.29%
	4000	\$389.97	\$461.42	\$71.44	18.32%
	5000	\$484.82	\$573.74	\$88.92	18.34%
	250	\$46.33	\$53.67	\$7.34	15.83%
	300	\$53.48	\$61.98	\$8.50	15.89%
	400	\$67.79	\$78.61	\$10.82	15.96%
	500	\$82.09	\$95.23	\$13.14	16.01%
	600	\$96.39	\$111.85	\$15.46	16.04%
SUMMER	675	\$107.12	\$171.03	\$17.20	16.06%
SOMMEN	750	\$107.12 \$117.84	\$124.32 \$136.79	\$18.95	16.08%
	1000	\$153.60	\$178.35	\$24.75	16.11%
	1500	\$225.10	\$170.33 \$261.46	\$36.36	16.15%
	2000	\$296.61	\$344.58	\$47.97	16.17%
	3000	\$439.63	\$510.81	\$71.19	16.17%
	4000	\$582.64	\$677.05	\$94.40	16.20%
	5000	\$725.66	\$843.28	\$117.62	16.21%
	3000	Ψ123.00	ψ0 <del>4</del> 3.20	ψ117.02	10.2170
	250	\$38.31	\$44.69	\$6.38	16.65%
	250	·	·		
	300	\$43.85 \$54.04	\$51.20	\$7.35	16.76%
	400	\$54.94 \$66.00	\$64.23	\$9.29	16.91%
	500	\$66.03	\$77.26	\$11.23	17.00%
A) (ED A O E	600	\$77.12 \$05.44	\$90.29	\$13.17	17.07%
AVERAGE	675	\$85.44	\$100.06	\$14.62	17.11%
MONTHLY	750	\$93.76	\$109.83	\$16.08	17.15%
	1000	\$121.48 \$176.04	\$142.41 \$207.55	\$20.92	17.22%
	1500	\$176.94 \$222.20	\$207.55 \$272.70	\$30.62	17.30%
	2000	\$232.39	\$272.70	\$40.31 \$50.71	17.35%
	3000	\$343.29	\$403.00	\$59.71	17.39%
	4000	\$454.20 \$565.40	\$533.29 \$663.50	\$79.10	17.41%
	5000	\$565.10	\$663.59	\$98.49	17.43%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 16 of 39

## RESIDENTIAL SERVICE (Underground) - A03

Energy		Month	nly Bill	Increase	
	in kWh	Present	Proposed	Amount	Percent
	250	\$41.33	\$48.10	\$6.77	16.38%
	300	\$47.48	\$55.30	\$7.82	16.46%
	400	\$59.78	\$69.69	\$9.91	16.58%
	500	\$72.08	\$84.08	\$12.01	16.66%
	600	\$84.38	\$98.48	\$14.10	16.71%
WINTER	675	\$93.60	\$109.28	\$15.67	16.74%
	750	\$102.83	\$120.07	\$17.24	16.77%
	1000	\$133.58	\$156.06	\$22.48	16.83%
	1500	\$195.08	\$228.03	\$32.95	16.89%
	2000	\$256.58	\$300.00	\$43.43	16.93%
	3000	\$379.57	\$443.95	\$64.38	16.96%
	4000	\$502.57	\$587.90	\$85.32	16.98%
	5000	\$625.57	\$731.84	\$106.27	16.99%
		<b>.</b>	•		
	250	\$46.33	\$53.67	\$7.34	15.83%
	300	\$53.48	\$61.98	\$8.50	15.89%
	400	\$67.79	\$78.61	\$10.82	15.96%
	500	\$82.09	\$95.23	\$13.14	16.01%
	600	\$96.39	\$111.85	\$15.46	16.04%
SUMMER	675	\$107.12	\$124.32	\$17.20	16.06%
	750	\$117.84	\$136.79	\$18.95	16.08%
	1000	\$153.60	\$178.35	\$24.75	16.11%
	1500	\$225.10	\$261.46	\$36.36	16.15%
	2000	\$296.61	\$344.58	\$47.97	16.17%
	3000	\$439.63	\$510.81	\$71.19	16.19%
	4000	\$582.64	\$677.05	\$94.40	16.20%
	5000	\$725.66	\$843.28	\$117.62	16.21%
	250	\$43.00	\$49.96	\$6.96	16.18%
	300	\$49.48	\$57.52	\$8.04	16.25%
	400	\$62.45	\$72.66	\$10.21	16.36%
	500	\$75.42	\$87.80	\$12.38	16.42%
	600	\$88.38	\$102.94	\$14.55	16.47%
AVERAGE	675	\$98.11	\$114.29	\$16.18	16.49%
MONTHLY	750	\$107.83	\$125.64	\$17.81	16.52%
	1000	\$140.25	\$163.49	\$23.24	16.57%
	1500	\$205.09	\$239.17	\$34.09	16.62%
	2000	\$269.92	\$314.86	\$44.94	16.65%
	3000	\$399.59	\$466.24	\$66.65	16.68%
	4000	\$529.26	\$617.61	\$88.35	16.69%
	5000	\$658.93	\$768.99	\$110.06	16.70%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 17 of 39

## RESIDENTIAL SERVICE - SPACE HEATING (Underground) - A03

	Energy	Month	ly Bill	Incre	ase
	in kWh	Present	Proposed	Amount	Percent
	250	\$36.29	\$42.19	\$5.90	16.26%
	300	\$41.03	\$47.81	\$6.78	16.51%
	400	\$50.52	\$59.04	\$8.52	16.87%
	500	\$60.00	\$70.27	\$10.27	17.12%
	600	\$69.49	\$81.51	\$12.02	17.30%
WINTER	675	\$76.60	\$89.93	\$13.33	17.40%
	750	\$83.72	\$98.36	\$14.64	17.49%
	1000	\$107.43	\$126.44	\$19.01	17.70%
	1500	\$154.85	\$182.60	\$27.75	17.92%
	2000	\$202.28	\$238.76	\$36.49	18.04%
	3000	\$297.12	\$351.09	\$53.97	18.16%
	4000	\$391.97	\$463.42	\$71.44	18.23%
	5000	\$486.82	\$575.74	\$88.92	18.27%
	250	\$48.33	\$55.67	\$7.34	15.18%
	300	\$55.48	\$63.98	\$8.50	15.31%
	400	\$69.79	\$80.61	\$10.82	15.50%
	500	\$84.09	\$97.23	\$13.14	15.63%
	600	\$98.39	\$113.85	\$15.46	15.72%
SUMMER	675	\$109.12	\$126.32	\$17.20	15.77%
	750	\$119.84	\$138.79	\$18.95	15.81%
	1000	\$155.60	\$180.35	\$24.75	15.91%
	1500	\$227.10	\$263.46	\$36.36	16.01%
	2000	\$298.61	\$346.58	\$47.97	16.06%
	3000	\$441.63	\$512.81	\$71.19	16.12%
	4000	\$584.64	\$679.05	\$94.40	16.15%
	5000	\$727.66	\$845.28	\$117.62	16.16%
	250	¢40.24	<b>\$46.60</b>	\$6.38	4E 020/
	250	\$40.31	\$46.69 \$53.30	•	15.83%
	300	\$45.85 \$56.04	\$53.20 \$66.23	\$7.35	16.03%
	400	\$56.94	•	\$9.29	16.31%
	500	\$68.03 \$79.12	\$79.26 \$92.29	\$11.23 \$12.17	16.50% 16.64%
۸\/EDACE	600 675	\$87.44	\$102.06	\$13.17 \$14.62	16.72%
AVERAGE MONTHLY	675 750	\$95.76	\$102.06 \$111.83	\$16.08	16.72%
MONTHLT	750 1000	\$123.48	\$111.03 \$144.41	\$20.92	16.79%
	1000 1500	\$123.46 \$178.94	\$209.55	\$20.92 \$30.62	17.11%
	2000	\$176.94 \$234.39	\$209.55 \$274.70	\$40.31	17.11%
	3000	\$345.29	\$274.70 \$405.00	\$59.71	17.20%
	4000	\$345.29 \$456.20	\$535.29	\$79.10	17.29%
	5000	\$567.10	\$665.59	\$98.49	17.34%
	3000	φυσι. το	φυυυ.υθ	ψ30.43	17.57/0

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 18 of 39

## RESIDENTIAL TIME OF DAY SERVICE (Overhead) - A02

	Energy	Month	lv Bill	Increase	
	in kWh	Present	Proposed	Amount	Percent
				, anount	. 0.00110
	250	\$40.54	\$47.00	\$6.46	15.94%
	300	\$46.54	\$53.98	\$7.45	16.00%
	400	\$58.52	\$67.94	\$9.42	16.09%
	500	\$70.51	\$81.90	\$11.39	16.15%
	600	\$82.49	\$95.85	\$13.36	16.20%
WINTER	675	\$91.48	\$106.32	\$14.84	16.22%
******	750	\$100.47	\$116.79	\$16.32	16.24%
	1000	\$130.43	\$151.68	\$21.25	16.29%
	1500	\$190.36	\$221.46	\$31.11	16.34%
	2000	\$250.28	\$291.25	\$40.96	16.37%
	3000	\$370.13	\$430.81	\$60.68	16.39%
	4000	\$489.98	\$570.38	\$80.39	16.41%
	5000	\$609.84	\$709.94	\$100.11	16.42%
	3000	Ψ003.04	Ψ103.34	Ψ100.11	10.42 /0
	250	\$45.29	\$52.26	\$6.97	15.39%
	300	\$52.24	\$60.29	\$8.06	15.42%
	400	\$66.12	\$76.35	\$10.23	15.47%
	500	\$80.01	\$92.41	\$12.41	15.51%
	600	\$93.89	\$108.47	\$14.58	15.53%
SUMMER	675	\$104.30	\$120.51	\$16.21	15.54%
	750	\$114.72	\$132.56	\$17.84	15.55%
	1000	\$149.43	\$172.71	\$23.28	15.58%
	1500	\$218.86	\$253.01	\$34.15	15.60%
	2000	\$288.28	\$333.31	\$45.03	15.62%
	3000	\$427.13	\$493.90	\$66.77	15.63%
	4000	\$565.98	\$654.50	\$88.52	15.64%
	5000	\$704.83	\$815.10	\$110.27	15.64%
		<b>4.000</b>	<b>40.01.10</b>	<b>4 3</b> . <u>-</u> .	1010170
			•	•	
	250	\$42.13	\$48.76	\$6.63	15.74%
	300	\$48.44	\$56.08	\$7.65	15.79%
	400	\$61.05	\$70.74	\$9.69	15.87%
	500	\$73.67	\$85.40	\$11.73	15.92%
	600	\$86.29	\$100.06	\$13.77	15.95%
AVERAGE	675	\$95.75	\$111.05	\$15.30	15.98%
MONTHLY	750	\$105.22	\$122.04	\$16.83	15.99%
	1000	\$136.76	\$158.69	\$21.92	16.03%
	1500	\$199.86	\$231.98	\$32.12	16.07%
	2000	\$262.95	\$305.27	\$42.32	16.09%
	3000	\$389.13	\$451.84	\$62.71	16.12%
	4000	\$515.32	\$598.42	\$83.10	16.13%
	5000	\$641.50	\$745.00	\$103.50	16.13%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 19 of 39

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

	Energy	Monthly Bill		Increase	
	in kWh	Present	Proposed	Amount	Percent
		11000111	1.000000	7 1110 0110	1 0100110
	250	\$36.22	\$42.03	\$5.80	16.02%
	300	\$40.95	\$47.61	\$6.66	16.26%
	400	\$50.41	\$58.77	\$8.37	16.60%
	500	\$59.86	\$69.94	\$10.08	16.83%
	600	\$69.32	\$81.11	\$11.79	17.00%
WINTER	675	\$76.41	\$89.48	\$13.07	17.10%
	750	\$83.51	\$97.85	\$14.35	17.18%
	1000	\$107.15	\$125.77	\$18.62	17.38%
	1500	\$154.43	\$181.60	\$27.17	17.59%
	2000	\$201.71	\$237.43	\$35.71	17.70%
	3000	\$296.28	\$349.08	\$52.80	17.82%
	4000	\$390.85	\$460.74	\$69.89	17.88%
	5000	\$485.42	\$572.40	\$86.98	17.92%
	3000	ψ400.42	ψ372.40	ψ00.90	17.92/0
	250	\$47.29	\$54.26	\$6.97	14.73%
	300	\$54.24	\$62.29	\$8.06	14.85%
	400	\$68.12	\$78.35	\$10.23	15.02%
	500	\$82.01	\$94.41	\$12.41	15.13%
	600	\$95.89	\$110.47	\$14.58	15.20%
SUMMER	675	\$106.30	\$122.51	\$16.21	15.25%
	750	\$116.72	\$134.56	\$17.84	15.29%
	1000	\$151.43	\$174.71	\$23.28	15.37%
	1500	\$220.86	\$255.01	\$34.15	15.46%
	2000	\$290.28	\$335.31	\$45.03	15.51%
	3000	\$429.13	\$495.90	\$66.77	15.56%
	4000	\$567.98	\$656.50	\$88.52	15.58%
	5000	\$706.83	\$817.10	\$110.27	15.60%
	250	\$39.91	\$46.10	\$6.19	15.52%
	300	\$45.38	\$52.50	\$7.12	15.70%
	400	\$56.31	\$65.30	\$8.99	15.96%
	500	\$67.24	\$78.10	\$10.85	16.14%
	600	\$78.18	\$90.89	\$12.72	16.27%
AVERAGE	675	\$86.38	\$100.49	\$14.12	16.34%
MONTHLY	750	\$94.58	\$110.09	\$15.51	16.40%
WONTHE	1000	\$121.91	\$142.08	\$20.17	16.55%
	1500	\$176.57	\$206.07	\$29.50	16.70%
	2000	\$231.24	\$270.05	\$38.82	16.79%
	3000	\$340.56	\$398.02	\$57.46	16.87%
	4000	\$449.89	\$525.99	\$76.10	16.92%
	5000	\$559.22	\$653.97	\$94.75	16.94%
	5000	Ψ000.22	Ψ000.07	ΨΟ 1.7 Ο	10.0-7/0

# Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 20 of 39

### **SMALL GENERAL SERVICE**

Energy		Month	ly Bill	Increase	
	in kWh	Present	Proposed	Amount	Percent
	250	\$39.00	\$43.56	\$4.56	11.70%
	300	\$44.64	\$49.82	\$5.18	11.61%
	400	\$55.93	\$62.35	\$6.42	11.48%
	500	\$67.22	\$74.88	\$7.66	11.40%
WINTER	600	\$78.50	\$87.40	\$8.90	11.34%
	750	\$95.43	\$106.19	\$10.76	11.28%
	1000	\$123.65	\$137.51	\$13.86	11.21%
	1500	\$180.09	\$200.15	\$20.06	11.14%
	2000	\$236.52	\$262.79	\$26.26	11.10%
	3000	\$349.39	\$388.06	\$38.67	11.07%
	4000	\$462.26	\$513.33	\$51.07	11.05%
	5000	\$575.13	\$638.60	\$63.47	11.04%
	250	\$44.02	\$49.14	\$5.12	11.63%
	300	\$50.67	\$56.52	\$5.85	11.54%
	400	\$63.96	\$71.28	\$7.31	11.43%
	500	\$77.26	\$86.04	\$8.78	11.36%
SUMMER	600	\$90.56	\$100.80	\$10.24	11.31%
	750	\$110.50	\$122.93	\$12.43	11.25%
	1000	\$143.74	\$159.83	\$16.09	11.19%
	1500	\$210.22	\$233.63	\$23.41	11.13%
	2000	\$276.70	\$307.42	\$30.72	11.10%
	3000	\$409.66	\$455.02	\$45.35	11.07%
	4000	\$542.63	\$602.61	\$59.98	11.05%
	5000	\$675.59	\$750.20	\$74.61	11.04%
	250	\$40.67	\$45.42	\$4.75	11.67%
	300	\$46.65	\$52.05	\$5.40	11.58%
	400	\$58.61	\$65.33	\$6.72	11.46%
	500	\$70.56	\$78.60	\$8.03	11.38%
AVERAGE	600	\$82.52	\$91.87	\$9.35	11.33%
MONTHLY	750	\$100.46	\$111.77	\$11.32	11.27%
	1000	\$130.35	\$144.95	\$14.61	11.20%
	1500	\$190.13	\$211.31	\$21.18	11.14%
	2000	\$249.92	\$277.66	\$27.75	11.10%
	3000	\$369.48	\$410.38	\$40.89	11.07%
	4000	\$489.05	\$543.09	\$54.04	11.05%
	5000	\$608.62	\$675.80	\$67.18	11.04%
		•	•	•	-

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 21 of 39

### **GENERAL SERVICE (Secondary Voltage)**

### **Monthly Bill** Demand Energy **Increase** in kW in kWh Hours Present Proposed **Amount** Percent 15 3,000 200 \$421.49 \$481.18 \$59.69 14.16% 15 6,000 400 \$621.13 \$712.58 \$91.46 14.72% 15 9.000 600 \$775.22 \$889.81 \$114.58 14.78% 25 5,000 200 \$683.82 \$783.51 \$99.69 14.58% 25 10,000 400 \$1,016.56 \$1,169.19 \$152.63 15.01% 25 15,000 \$1,273.39 15.01% 600 \$1,464.56 \$191.18 50 10,000 200 \$1,339.67 \$1,539.36 \$199.69 14.91% 15.24% 50 20,000 400 \$2,005.13 \$2,310.70 \$305.57 50 30,000 600 \$382.66 15.19% \$2,518.79 \$2,901.45 75 15,000 \$2,295.20 15.02% 200 \$1,995.51 \$299.68 75 30,000 400 \$2,993.71 \$3,452.22 \$458.51 15.32% 75 45,000 600 \$3,764.20 \$4,338.34 \$574.14 15.25% 100 20,000 200 \$2,651.36 \$3,051.04 \$399.68 15.07% 100 40,000 400 \$3,982.28 \$4,593.73 \$611.45 15.35% 100 60,000 600 \$5,775.23 \$765.63 15.28% \$5,009.61 200 40,000 200 \$5,274.73 \$6,074.40 \$799.67 15.16% 80,000 400 200 \$7,936.59 \$9,159.79 \$1,223.20 15.41% 200 120,000 600 \$11,522.80 \$1,531.56 15.33% \$9,991.24 300 60,000 200 \$7,898.11 \$9,097.76 \$1,199.65 15.19% 300 120,000 400 \$11,890.89 \$13,725.85 \$1,834.96 15.43% 300 180,000 600 \$14,972.87 \$17,270.36 \$2,297.49 15.34% 400 80,000 200 \$10,521.49 \$12,121.12 \$1,599.64 15.20% 400 160,000 400 \$15,845.19 \$18,291.90 \$2,446.71 15.44% 15.35% \$19,954.49 400 240,000 600 \$23,017.92 \$3,063.42 500 100,000 200 \$13,144.86 \$15,144.48 \$1,999.62 15.21% 200,000 500 400 \$19,799.49 \$22,857.96 \$3,058.47 15.45% 500 300,000 600 \$24,936.12 \$3,829.35 15.36% \$28,765.48 150,000 15.22% 750 200 \$19,703.30 \$22,702.89 \$2,999.59 750 300,000 400 \$29,685.25 \$34,273.10 \$4,587.86 15.46% 750 450,000 600 \$37,390.19 \$43,134.38 \$5,744.18 15.36% 1,000 200,000 200 \$26,261.75 \$30,261.29 \$3,999.55 15.23% 400 1,000 400,000 \$39,571.01 \$45,688.25 \$6,117.24 15.46% \$49,844.27 15.37% 1,000 600,000 600 \$57,503.28 \$7,659.01

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 22 of 39

### **GENERAL SERVICE (Primary Voltage)**

Demand	Energy	Ī	Monthly Bill		Increase	
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
		_				
15	3,000	200	\$406.34	\$466.81	\$60.47	14.88%
15	6,000	400	\$602.83	\$694.34	\$91.52	15.18%
15	9,000	600	\$753.77	\$867.70	\$113.92	15.11%
25	5,000	200	\$658.57	\$759.56	\$100.99	15.33%
25	10,000	400	\$986.06	\$1,138.79	\$152.73	15.49%
25	15,000	600	\$1,237.64	\$1,427.71	\$190.08	15.36%
50	10,000	200	\$1,289.17	\$1,491.46	\$202.29	15.69%
50	20,000	400	\$1,944.13	\$2,249.90	\$305.77	15.73%
50	30,000	600	\$2,447.29	\$2,827.75	\$380.46	15.55%
75	15,000	200	\$1,919.76	\$2,223.35	\$303.58	15.81%
75	30,000	400	\$2,902.21	\$3,361.02	\$458.81	15.81%
75	45,000	600	\$3,656.95	\$4,227.79	\$570.84	15.61%
100	20,000	200	\$2,550.36	\$2,955.24	\$404.88	15.88%
100	40,000	400	\$3,860.28	\$4,472.13	\$611.85	15.85%
100	60,000	600	\$4,866.61	\$5,627.83	\$761.23	15.64%
200	40,000	200	\$5,072.73	\$5,882.80	\$810.07	15.97%
200	80,000	400	\$7,692.59	\$8,916.59	\$1,224.00	15.91%
200	120,000	600	\$9,705.24	\$11,228.00	\$1,522.76	15.69%
300	60,000	200	\$7,595.11	\$8,810.36	\$1,215.25	16.00%
300	120,000	400	\$11,524.89	\$13,361.05	\$1,836.16	15.93%
300	180,000	600	\$14,543.87	\$16,828.16	\$2,284.29	15.71%
400	80,000	200	\$10,117.49	\$11,737.92	\$1,620.44	16.02%
400	160,000	400	\$15,357.19	\$17,805.50	\$2,448.31	15.94%
400	240,000	600	\$19,382.49	\$22,428.32	\$3,045.82	15.71%
500	100,000	200	\$12,639.86	\$14,665.48	\$2,025.62	16.03%
500	200,000	400	\$19,189.49	\$22,249.96	\$3,060.47	15.95%
500	300,000	600	\$24,221.12	\$28,028.48	\$3,807.35	15.72%
750	150,000	200	\$18,945.80	\$21,984.39	\$3,038.59	16.04%
750	300,000	400	\$28,770.25	\$33,361.10	\$4,590.86	15.96%
750	450,000	600	\$36,317.69	\$42,028.88	\$5,711.18	15.73%
1,000	200,000	200	\$25,251.75	\$29,303.29	\$4,051.55	16.04%
1,000	400,000	400	\$38,351.01	\$44,472.25	\$6,121.24	15.96%
1,000	600,000	600	\$48,414.27	\$56,029.28	\$7,615.01	15.73%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 23 of 39

## **GENERAL TOD SERVICE (Secondary Voltage)**

Demand	Energy	Г	Monthly Bill		Increase	
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
		_				
15	3,000	200	\$422.92	\$482.32	\$59.40	14.04%
15	6,000	400	\$620.00	\$710.87	\$90.87	14.66%
15	9,000	600	\$771.54	\$885.24	\$113.70	14.74%
25	5,000	200	\$683.55	\$782.75	\$99.20	14.51%
25	10,000	400	\$1,012.02	\$1,163.67	\$151.65	14.99%
25	15,000	600	\$1,264.58	\$1,454.28	\$189.71	15.00%
50	10,000	200	\$1,335.13	\$1,533.83	\$198.71	14.88%
50	20,000	400	\$1,992.05	\$2,295.66	\$303.61	15.24%
50	30,000	600	\$2,497.17	\$2,876.89	\$379.72	15.21%
75	15,000	200	\$1,986.70	\$2,284.91	\$298.21	15.01%
75	30,000	400	\$2,972.09	\$3,427.65	\$455.57	15.33%
75	45,000	600	\$3,729.77	\$4,299.50	\$569.73	15.28%
100	20,000	200	\$2,638.28	\$3,035.99	\$397.72	15.07%
100	40,000	400	\$3,952.12	\$4,559.65	\$607.52	15.37%
100	60,000	600	\$4,962.37	\$5,722.11	\$759.74	15.31%
200	40,000	200	\$5,244.57	\$6,040.31	\$795.74	15.17%
200	80,000	400	\$7,872.26	\$9,087.62	\$1,215.36	15.44%
200	120,000	600	\$9,892.75	\$11,412.54	\$1,519.79	15.36%
300	60,000	200	\$7,850.87	\$9,044.63	\$1,193.76	15.21%
300	120,000	400	\$11,792.41	\$13,615.59	\$1,823.19	15.46%
300	180,000	600	\$14,823.14	\$17,102.97	\$2,279.83	15.38%
500	100,000	200	\$13,063.46	\$15,053.27	\$1,989.81	15.23%
500	200,000	400	\$19,632.69	\$22,671.54	\$3,038.85	15.48%
500	300,000	600	\$24,683.92	\$28,483.84	\$3,799.92	15.39%
1,000	200,000	200	\$26,094.94	\$30,074.87	\$3,979.93	15.25%
1,000	400,000	400	\$39,233.40	\$45,311.40	\$6,078.00	15.49%
1,000	600,000	600	\$49,335.85	\$56,936.00	\$7,600.15	15.40%
3,000	600,000	200	\$78,220.86	\$90,161.26	\$11,940.39	15.26%
3,000	1,200,000	400	\$117,636.23	\$135,870.84	\$18,234.61	15.50%
3,000	1,800,000	600	\$147,943.60	\$170,744.66	\$22,801.06	15.41%
5,000	1,000,000	200	\$130,346.79	\$150,247.65	\$19,900.86	15.27%
5,000	2,000,000	400	\$196,039.07	\$226,430.29	\$30,391.22	15.50%
5,000	3,000,000	600	\$246,551.35	\$284,553.32	\$38,001.97	15.41%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 24 of 39

## **GENERAL TOD SERVICE** (Primary Voltage)

	_	F			60% Off-Peak	
Demand	Energy	L	Monthly Bill		Incre	
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
			A :	<b>A</b> :====	<b>A</b> = 2 + 2	
15	3,000	200	\$407.77	\$467.95	\$60.18	14.76%
15	6,000	400	\$601.70	\$692.63	\$90.93	15.11%
15	9,000	600	\$750.09	\$863.13	\$113.04	15.07%
25	5,000	200	\$658.30	\$758.80	\$100.50	15.27%
25	10,000	400	\$981.52	\$1,133.27	\$151.75	15.46%
25	15,000	600	\$1,228.83	\$1,417.43	\$188.61	15.35%
50	10,000	200	\$1,284.63	\$1,485.93	\$201.31	15.67%
50	20,000	400	\$1,931.05	\$2,234.86	\$303.81	15.73%
50	30,000	600	\$2,425.67	\$2,803.19	\$377.52	15.56%
75	15,000	200	\$1,910.95	\$2,213.06	\$302.11	15.81%
75	30,000	400	\$2,880.59	\$3,336.45	\$455.87	15.83%
75	45,000	600	\$3,622.52	\$4,188.95	\$566.43	15.64%
100	20,000	200	\$2,537.28	\$2,940.19	\$402.92	15.88%
100	40,000	400	\$3,830.12	\$4,438.05	\$607.92	15.87%
100	60,000	600	\$4,819.37	\$5,574.71	\$755.34	15.67%
200	40,000	200	\$5,042.57	\$5,848.71	\$806.14	15.99%
200	80,000	400	\$7,628.26	\$8,844.42	\$1,216.16	15.94%
200	120,000	600	\$9,606.75	\$11,117.74	\$1,510.99	15.73%
300	60,000	200	\$7,547.87	\$8,757.23	\$1,209.36	16.02%
300	120,000	400	\$11,426.41	\$13,250.79	\$1,824.39	15.97%
300	180,000	600	\$14,394.14	\$16,660.77	\$2,266.63	15.75%
500	100,000	200	\$12,558.46	\$14,574.27	\$2,015.81	16.05%
500	200,000	400	\$19,022.69	\$22,063.54	\$3,040.85	15.99%
500	300,000	600	\$23,968.92	\$27,746.84	\$3,777.92	15.76%
1,000	200,000	200	\$25,084.94	\$29,116.87	\$4,031.93	16.07%
1,000	400,000	400	\$38,013.40	\$44,095.40	\$6,082.00	16.00%
1,000	600,000	600	\$47,905.85	\$55,462.00	\$7,556.15	15.77%
3,000	600,000	200	\$75,190.86	\$87,287.26	\$12,096.39	16.09%
3,000	1,200,000	400	\$113,976.23	\$132,222.84	\$18,246.61	16.01%
3,000	1,800,000	600	\$143,653.60	\$166,322.66	\$22,669.06	15.78%
5,000	1,000,000	200	\$125,296.79	\$145,457.65	\$20,160.86	16.09%
5,000	2,000,000	400	\$189,939.07	\$220,350.29	\$30,411.22	16.01%
5,000	3,000,000	600	\$239,401.35	\$277,183.32	\$37,781.97	15.78%
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Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 25 of 39

#### **GENERAL TOD SERVICE (**Transmission Transformed Voltage)

Demand	Energy	Г	Month	nly Bill	Incre	OII-Peak
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
III KVV	III KVVII	Hours	Fiesent	FToposeu	Amount	Percent
15	3,000	200	\$391.66	\$444.64	\$52.98	13.53%
15	6,000	400	\$580.73	\$664.01	\$83.28	14.34%
15	9,000	600	\$724.26	\$829.20	\$104.94	14.49%
25	5,000	200	\$631.45	\$719.95	\$88.50	14.02%
25	10,000	400	\$946.57	\$1,085.57	\$139.00	14.68%
25	15,000	600	\$1,185.78	\$1,360.88	\$175.11	14.77%
50	10,000	200	\$1,230.93	\$1,408.23	\$177.31	14.40%
50	20,000	400	\$1,861.15	\$2,139.46	\$278.31	14.95%
50	30,000	600	\$2,339.57	\$2,690.09	\$350.52	14.98%
75	15,000	200	\$1,830.40	\$2,096.51	\$266.11	14.54%
75	30,000	400	\$2,775.74	\$3,193.35	\$417.62	15.05%
75	45,000	600	\$3,493.37	\$4,019.30	\$525.93	15.06%
100	20,000	200	\$2,429.88	\$2,784.79	\$354.92	14.61%
100	40,000	400	\$3,690.32	\$4,247.25	\$556.92	15.09%
100	60,000	600	\$4,647.17	\$5,348.51	\$701.34	15.09%
200	40,000	200	\$4,827.77	\$5,537.91	\$710.14	14.71%
200	80,000	400	\$7,348.66	\$8,462.82	\$1,114.16	15.16%
200	120,000	600	\$9,262.35	\$10,665.34	\$1,402.99	15.15%
300	60,000	200	\$7,225.67	\$8,291.03	\$1,065.36	14.74%
300	120,000	400	\$11,007.01	\$12,678.39	\$1,671.39	15.18%
300	180,000	600	\$13,877.54	\$15,982.17	\$2,104.63	15.17%
500	100,000	200	\$12,021.46	\$13,797.27	\$1,775.81	14.77%
500	200,000	400	\$18,323.69	\$21,109.54	\$2,785.85	15.20%
500	300,000	600	\$23,107.92	\$26,615.84	\$3,507.92	15.18%
1,000	200,000	200	\$24,010.94	\$27,562.87	\$3,551.93	14.79%
1,000	400,000	400	\$36,615.40	\$42,187.40	\$5,572.00	15.22%
1,000	600,000	600	\$46,183.85	\$53,200.00	\$7,016.15	15.19%
3,000	600,000	200	\$71,968.86	\$82,625.26	\$10,656.39	14.81%
3,000	1,200,000	400	\$109,782.23	\$126,498.84	\$16,716.61	15.23%
3,000	1,800,000	600	\$138,487.60	\$159,536.66	\$21,049.06	15.20%
5,000	1,000,000	200	\$119,926.79	\$137,687.65	\$17,760.86	14.81%
5,000	2,000,000	400	\$182,949.07	\$210,810.29	\$27,861.22	15.23%
5,000	3,000,000	600	\$230,791.35	\$265,873.32	\$35,081.97	15.20%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 26 of 39

#### **GENERAL TOD SERVICE** (Transmission Voltage)

Demand	Energy	[	Month	nly Bill	Incre	ase
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
		-				
15	3,000	200	\$379.36	\$432.31	\$52.95	13.96%
15	6,000	400	\$568.13	\$651.35	\$83.22	14.65%
15	9,000	600	\$711.36	\$816.21	\$104.85	14.74%
25	5,000	200	\$610.95	\$699.40	\$88.45	14.48%
25	10,000	400	\$925.57	\$1,064.47	\$138.90	15.01%
25	15,000	600	\$1,164.28	\$1,339.23	\$174.96	15.03%
50	10,000	200	\$1,189.93	\$1,367.13	\$177.21	14.89%
50	20,000	400	\$1,819.15	\$2,097.26	\$278.11	15.29%
50	30,000	600	\$2,296.57	\$2,646.79	\$350.22	15.25%
75	15,000	200	\$1,768.90	\$2,034.86	\$265.96	15.04%
75	30,000	400	\$2,712.74	\$3,130.05	\$417.32	15.38%
75	45,000	600	\$3,428.87	\$3,954.35	\$525.48	15.33%
100	20,000	200	\$2,347.88	\$2,702.59	\$354.72	15.11%
100	40,000	400	\$3,606.32	\$4,162.85	\$556.52	15.43%
100	60,000	600	\$4,561.17	\$5,261.91	\$700.74	15.36%
200	40,000	200	\$4,663.77	\$5,373.51	\$709.74	15.22%
200	80,000	400	\$7,180.66	\$8,294.02	\$1,113.36	15.50%
200	120,000	600	\$9,090.35	\$10,492.14	\$1,401.79	15.42%
300	60,000	200	\$6,979.67	\$8,044.43	\$1,064.76	15.26%
300	120,000	400	\$10,755.01	\$12,425.19	\$1,670.19	15.53%
300	180,000	600	\$13,619.54	\$15,722.37	\$2,102.83	15.44%
500	100,000	200	\$11,611.46	\$13,386.27	\$1,774.81	15.28%
500	200,000	400	\$17,903.69	\$20,687.54	\$2,783.85	15.55%
500	300,000	600	\$22,677.92	\$26,182.84	\$3,504.92	15.46%
1,000	200,000	200	\$23,190.94	\$26,740.87	\$3,549.93	15.31%
1,000	400,000	400	\$35,775.40	\$41,343.40	\$5,568.00	15.56%
1,000	600,000	600	\$45,323.85	\$52,334.00	\$7,010.15	15.47%
3,000	600,000	200	\$69,508.86	\$80,159.26	\$10,650.39	15.32%
3,000	1,200,000	400	\$107,262.23	\$123,966.84	\$16,704.61	15.57%
3,000	1,800,000	600	\$135,907.60	\$156,938.66	\$21,031.06	15.47%
5,000	1,000,000	200	\$115,826.79	\$133,577.65	\$17,750.86	15.33%
5,000	2,000,000	400	\$178,749.07	\$206,590.29	\$27,841.22	15.58%
5,000	3,000,000	600	\$226,491.35	\$261,543.32	\$35,051.97	15.48%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 27 of 39

#### RESIDENTIAL SERVICE (Overhead) - A01

	Energy	Month	ly Bill	Incre	ase
	in kWh	Present	Proposed	Amount	Percent
	250	\$39.23	\$47.10	\$7.87	20.06%
	300	\$45.36	\$54.49	\$9.14	20.14%
	400	\$57.62	\$69.29	\$11.67	20.26%
	500	\$69.88	\$84.08	\$14.21	20.33%
	600	\$82.14	\$98.88	\$16.74	20.38%
WINTER	675	\$91.33	\$109.97	\$18.64	20.41%
	750	\$100.52	\$121.07	\$20.54	20.44%
	1000	\$131.17	\$158.06	\$26.88	20.49%
	1500	\$192.47	\$232.03	\$39.56	20.55%
	2000	\$253.77	\$306.00	\$52.23	20.58%
	3000	\$376.36	\$453.94	\$77.58	20.61%
	4000	\$498.95	\$601.89	\$102.93	20.63%
	5000	\$621.54	\$749.83	\$128.29	20.64%
	050	<b>#44.00</b>	<b>Ф</b> БО <b>7</b> Б	<b>#0.50</b>	40.050/
	250	\$44.23 \$54.20	\$52.75	\$8.52	19.25%
	300	\$51.36 \$65.60	\$61.28	\$9.91	19.30%
	400	\$65.62 \$70.00	\$78.33 \$05.30	\$12.71 \$45.50	19.36%
	500	\$79.89	\$95.39	\$15.50	19.41%
OLIMANAED	600	\$94.15	\$112.44	\$18.30 \$20.20	19.43%
SUMMER	675	\$104.84	\$125.23	\$20.39	19.45%
	750	\$115.54	\$138.02	\$22.49	19.46%
	1000	\$151.19	\$180.66	\$29.47	19.49%
	1500	\$222.50	\$265.94	\$43.44	19.53%
	2000	\$293.80	\$351.21	\$57.41	19.54%
	3000	\$436.41	\$521.76	\$85.35	19.56%
	4000	\$579.02	\$692.31	\$113.29	19.57%
	5000	\$721.63	\$862.87	\$141.23	19.57%
	250	\$40.90	\$48.98	\$8.09	19.77%
	300	\$47.36	\$56.76	\$9.40	19.84%
	400	\$60.29	\$72.30	\$12.02	19.93%
	500	\$73.21	\$87.85	\$14.64	19.99%
	600	\$86.14	\$103.40	\$17.26	20.04%
AVERAGE	675	\$95.83	\$115.06	\$19.23	20.06%
MONTHLY	750	\$105.53	\$126.72	\$21.19	20.08%
	1000	\$137.85	\$165.59	\$27.75	20.13%
	1500	\$202.48	\$243.33	\$40.85	20.18%
	2000	\$267.11	\$321.07	\$53.96	20.20%
	3000	\$396.38	\$476.55	\$80.17	20.23%
	4000	\$525.64	\$632.03	\$106.39	20.24%
	5000	\$654.91	\$787.51	\$132.60	20.25%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 28 of 39

#### RESIDENTIAL SERVICE - SPACE HEATING (Overhead) - A01

	Energy	Month	ly Bill	Increase	
	in kWh	Present	Proposed	Amount	Percent
			·		
	250	\$34.19	\$40.86	\$6.67	19.50%
	300	\$38.91	\$46.61	\$7.69	19.77%
	400	\$48.36	\$58.11	\$9.75	20.16%
	500	\$57.80	\$69.60	\$11.80	20.42%
	600	\$67.25	\$81.10	\$13.86	20.61%
WINTER	675	\$74.33	\$89.73	\$15.40	20.71%
	750	\$81.41	\$98.35	\$16.94	20.80%
	1000	\$105.02	\$127.10	\$22.07	21.02%
	1500	\$152.24	\$184.59	\$32.34	21.24%
	2000	\$199.47	\$242.08	\$42.61	21.36%
	3000	\$293.91	\$357.06	\$63.15	21.49%
	4000	\$388.35	\$472.05	\$83.69	21.55%
	5000	\$482.79	\$587.03	\$104.24	21.59%
	250	\$46.23	\$54.75	\$8.52	18.42%
	300	\$53.36	\$63.28	\$9.91	18.58%
	400	\$67.62	\$80.33	\$12.71	18.79%
	500	\$81.89	\$97.39	\$15.50	18.93%
	600	\$96.15	\$114.44	\$18.30	19.03%
SUMMER	675	\$106.84	\$127.23	\$20.39	19.09%
COMMEN	750	\$117.54	\$140.02	\$22.49	19.13%
	1000	\$153.19	\$182.66	\$29.47	19.24%
	1500	\$224.50	\$267.94	\$43.44	19.35%
	2000	\$295.80	\$353.21	\$57.41	19.41%
	3000	\$438.41	\$523.76	\$85.35	19.47%
	4000	\$581.02	\$694.31	\$113.29	19.50%
	5000	\$723.63	\$864.87	\$141.23	19.52%
	0000	Ψ120.00	φου 1.07	Ψ111.20	10.0270
	250	\$38.20	\$45.49	\$7.28	19.06%
	300	\$43.73	\$52.16	\$8.43	19.00%
	400	\$54.78	\$65.51	\$10.73	19.29%
	500	\$65.83	\$78.86	\$13.04	19.80%
	600	\$76.88	\$78.86 \$92.22	\$15.0 <del>4</del> \$15.34	19.80%
AVERAGE	675	\$85.17	\$102.23	\$17.06	20.03%
MONTHLY	750	\$93.45	\$102.23 \$112.24	\$18.79	20.03%
IVIOINTILI	1000	\$121.08	\$112.24 \$145.62	\$24.54	20.10%
	1500	\$176.33	\$143.02 \$212.37	\$36.04	20.27 %
	2000	\$231.58	\$279.12	\$47.55	20.44 %
	3000	\$342.08	\$412.63	\$70.55	20.63%
	4000	\$452.57	\$546.14	\$93.56	20.67%
	5000	\$563.07	\$679.64	\$116.57	20.70%
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Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 29 of 39

#### RESIDENTIAL SERVICE (Underground) - A03

	Energy	Month	nly Bill	Incre	ase
	in kWh	Present	Proposed	Amount	Percent
	250	\$41.23	\$49.10	\$7.87	19.09%
	300	\$47.36	\$56.49	\$9.14	19.29%
	400	\$59.62	\$71.29	\$11.67	19.58%
	500	\$71.88	\$86.08	\$14.21	19.77%
	600	\$84.14	\$100.88	\$16.74	19.90%
WINTER	675	\$93.33	\$111.97	\$18.64	19.98%
	750	\$102.52	\$123.07	\$20.54	20.04%
	1000	\$133.17	\$160.06	\$26.88	20.19%
	1500	\$194.47	\$234.03	\$39.56	20.34%
	2000	\$255.77	\$308.00	\$52.23	20.42%
	3000	\$378.36	\$455.94	\$77.58	20.51%
	4000	\$500.95	\$603.89	\$102.93	20.55%
	5000	\$623.54	\$751.83	\$128.29	20.57%
	250	\$46.23	\$54.75	\$8.52	18.42%
	300	\$53.36	\$63.28	\$9.91	18.58%
	400	\$67.62	\$80.33	\$12.71	18.79%
	500	\$81.89	\$97.39	\$15.50	18.93%
	600	\$96.15	\$114.44	\$18.30	19.03%
SUMMER	675	\$106.84	\$127.23	\$20.39	19.09%
	750	\$117.54	\$140.02	\$22.49	19.13%
	1000	\$153.19	\$182.66	\$29.47	19.24%
	1500	\$224.50	\$267.94	\$43.44	19.35%
	2000	\$295.80	\$353.21	\$57.41	19.41%
	3000	\$438.41	\$523.76	\$85.35	19.47%
	4000	\$581.02	\$694.31	\$113.29	19.50%
	5000	\$723.63	\$864.87	\$141.23	19.52%
		<b>.</b>	<b>.</b>	<b>.</b>	
	250	\$42.90	\$50.98	\$8.09	18.85%
	300	\$49.36	\$58.76	\$9.40	19.04%
	400	\$62.29	\$74.30	\$12.02	19.29%
	500	\$75.21	\$89.85	\$14.64	19.46%
	600	\$88.14	\$105.40	\$17.26	19.58%
AVERAGE	675	\$97.83	\$117.06	\$19.23	19.65%
MONTHLY	750	\$107.53	\$128.72	\$21.19	19.71%
	1000	\$139.85	\$167.59	\$27.75	19.84%
	1500	\$204.48	\$245.33	\$40.85	19.98%
	2000	\$269.11	\$323.07	\$53.96	20.05%
	3000	\$398.38	\$478.55	\$80.17	20.13%
	4000	\$527.64	\$634.03	\$106.39	20.16%
	5000	\$656.91	\$789.51	\$132.60	20.19%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 30 of 39

#### RESIDENTIAL SERVICE - SPACE HEATING (Underground) - A03

Energy		Month	nly Bill	Increase	
	in kWh	Present	Proposed	Amount	Percent
	250	\$36.19	\$42.86	\$6.67	18.42%
	300	\$40.91	\$48.61	\$7.69	18.81%
	400	\$50.36	\$60.11	\$9.75	19.36%
	500	\$59.80	\$71.60	\$11.80	19.74%
	600	\$69.25	\$83.10	\$13.86	20.01%
WINTER	675	\$76.33	\$91.73	\$15.40	20.17%
	750	\$83.41	\$100.35	\$16.94	20.31%
	1000	\$107.02	\$129.10	\$22.07	20.62%
	1500	\$154.24	\$186.59	\$32.34	20.97%
	2000	\$201.47	\$244.08	\$42.61	21.15%
	3000	\$295.91	\$359.06	\$63.15	21.34%
	4000	\$390.35	\$474.05	\$83.69	21.44%
	5000	\$484.79	\$589.03	\$104.24	21.50%
	050	<b>#40.00</b>	<b>\$50.75</b>	<b>ሲ</b> ር ድር	47.000/
	250	\$48.23	\$56.75	\$8.52	17.66%
	300	\$55.36 \$60.60	\$65.28	\$9.91	17.91%
	400	\$69.62	\$82.33	\$12.71	18.25%
	500	\$83.89	\$99.39	\$15.50	18.48%
01111111111	600	\$98.15	\$116.44	\$18.30	18.64%
SUMMER	675	\$108.84	\$129.23	\$20.39	18.74%
	750	\$119.54	\$142.02	\$22.49	18.81%
	1000	\$155.19	\$184.66	\$29.47	18.99%
	1500	\$226.50	\$269.94	\$43.44	19.18%
	2000	\$297.80	\$355.21	\$57.41	19.28%
	3000	\$440.41	\$525.76	\$85.35	19.38%
	4000	\$583.02	\$696.31	\$113.29	19.43%
	5000	\$725.63	\$866.87	\$141.23	19.46%
	250	\$40.20	\$47.49	\$7.28	18.12%
	300	\$45.73	\$54.16	\$8.43	18.44%
	400	\$56.78	\$67.51	\$10.73	18.91%
	500	\$67.83	\$80.86	\$13.04	19.22%
	600	\$78.88	\$94.22	\$15.34	19.44%
AVERAGE	675	\$87.17	\$104.23	\$17.06	19.57%
MONTHLY	750	\$95.45	\$114.24	\$18.79	19.68%
	1000	\$123.08	\$147.62	\$24.54	19.94%
	1500	\$178.33	\$214.37	\$36.04	20.21%
	2000	\$233.58	\$281.12	\$47.55	20.36%
	3000	\$344.08	\$414.63	\$70.55	20.51%
	4000	\$454.57	\$548.14	\$93.56	20.58%
	5000	\$565.07	\$681.64	\$116.57	20.63%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 31 of 39

#### RESIDENTIAL TIME OF DAY SERVICE (Overhead) - A02

	_			65% Off-Peak		
	Energy	Month		Incre		
	in kWh	Present	Proposed	Amount	Percent	
	250	\$40.44	\$47.94	\$7.50	18.54%	
	300	\$46.41	\$55.10	\$8.69	18.72%	
	400	\$58.36	\$69.43	\$11.08	18.98%	
	500	\$70.30	\$83.77	\$13.46	19.15%	
	600	\$82.25	\$98.10	\$15.85	19.27%	
WINTER	675	\$91.21	\$108.84	\$17.64	19.34%	
VVIIVILIX	750	\$100.16	\$119.59	\$19.43	19.40%	
	1000	\$130.03	\$155.42	\$25.39	19.53%	
	1500	\$189.75	\$227.07	\$37.32	19.67%	
	2000	\$249.47	\$298.73	\$49.26	19.74%	
	3000	\$368.92	\$442.03	\$73.12	19.74%	
	4000	\$488.36	\$585.34	\$96.98	19.86%	
		\$607.81	•			
	5000	φου7.61	\$728.65	\$120.84	19.88%	
	250	\$45.19	\$53.27	\$8.08	17.88%	
	300	\$52.11	\$61.50	\$9.39	18.02%	
	400	\$65.96	\$77.97	\$12.01	18.21%	
	500	\$79.80	\$94.43	\$14.63	18.33%	
	600	\$93.65	\$110.89	\$17.25	18.42%	
SUMMER	675	\$104.03	\$123.24	\$19.21	18.47%	
	750	\$114.41	\$135.59	\$21.17	18.51%	
	1000	\$149.02	\$176.75	\$27.72	18.60%	
	1500	\$218.25	\$259.06	\$40.82	18.70%	
	2000	\$287.47	\$341.38	\$53.91	18.75%	
	3000	\$425.91	\$506.02	\$80.10	18.81%	
	4000	\$564.36	\$670.65	\$106.29	18.83%	
	5000	\$702.80	\$835.29	\$132.48	18.85%	
	050	<b>\$40.00</b>	<b>#40.70</b>	Ф <b>7</b> СО	40.200/	
	250	\$42.02	\$49.72	\$7.69	18.30%	
	300	\$48.31	\$57.24	\$8.92	18.47%	
	400	\$60.89	\$72.28	\$11.39	18.70%	
	500	\$73.47	\$87.32	\$13.85	18.85%	
	600	\$86.05	\$102.36	\$16.31	18.96%	
AVERAGE	675	\$95.48	\$113.64	\$18.16	19.02%	
MONTHLY	750	\$104.91	\$124.92	\$20.01	19.07%	
	1000	\$136.36	\$162.53	\$26.17	19.19%	
	1500	\$199.25	\$237.74	\$38.49	19.32%	
	2000	\$262.14	\$312.95	\$50.81	19.38%	
	3000	\$387.92	\$463.36	\$75.45	19.45%	
	4000	\$513.69	\$613.78	\$100.08	19.48%	
	5000	\$639.47	\$764.20	\$124.72	19.50%	

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 32 of 39

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

	Energy	Monthl	v Rill	Increase	
	in kWh	Present	Proposed	Amount	Percent
	III WAAII	FIESEIIL	rioposeu	Amount	reidelit
	250	\$36.12	\$42.68	\$6.56	18.15%
	300	\$40.83	\$48.39	\$7.56	18.52%
	400	\$50.24	\$59.82	\$9.57	19.05%
	500	\$59.66	\$71.24	\$11.58	19.41%
	600	\$69.08	\$82.67	\$13.59	19.68%
WINTER	675	\$76.14	\$91.24	\$15.10	19.83%
WINIER	750	\$83.20	\$99.81	\$16.61	19.05%
		\$106.74		\$21.63	
	1000		\$128.37 \$185.50		20.26%
	1500	\$153.82	\$185.50	\$31.68	20.60%
	2000	\$200.90	\$242.63	\$41.73	20.77%
	3000	\$295.07	\$356.89	\$61.83	20.95%
	4000	\$389.23	\$471.16	\$81.93	21.05%
	5000	\$483.39	\$585.42	\$102.03	21.11%
	250	\$47.19	\$55.27	\$8.08	17.12%
	300	\$54.11	\$63.50	\$9.39	17.35%
	400	\$67.96	\$79.97	\$12.01	17.67%
	500	\$81.80	\$96.43	\$14.63	17.88%
	600	\$95.65	\$112.89	\$17.25	18.03%
SUMMER	675	\$106.03	\$125.24	\$19.21	18.12%
0011111211	750	\$116.41	\$137.59	\$21.17	18.19%
	1000	\$151.02	\$178.75	\$27.72	18.36%
	1500	\$220.25	\$261.06	\$40.82	18.53%
	2000	\$289.47	\$343.38	\$53.91	18.62%
	3000	\$427.91	\$508.02	\$80.10	18.72%
	4000	\$566.36	\$672.65	\$106.29	18.77%
	5000	\$704.80	\$837.29	\$132.48	18.80%
	250	<b>ድ</b> ጋቢ 04	¢16 07	<b>¢</b> 7 ሰፍ	17 7/10/
		\$39.81 \$45.26	\$46.87 \$53.43	\$7.06 \$9.17	17.74%
	300	\$45.26 \$56.45	\$53.43 \$66.53	\$8.17 \$10.29	18.05%
	400	\$56.15 \$67.04	\$66.53 \$70.64	\$10.38 \$13.60	18.49%
	500	\$67.04 \$77.03	\$79.64 \$00.74	\$12.60	18.79%
A)/EDAOE	600	\$77.93 \$20.40	\$92.74	\$14.81	19.00%
AVERAGE	675	\$86.10	\$102.57	\$16.47	19.13%
MONTHLY	750	\$94.27	\$112.40	\$18.13	19.23%
	1000	\$121.50	\$145.16	\$23.66	19.47%
	1500	\$175.96	\$210.69	\$34.73	19.73%
	2000	\$230.43	\$276.22	\$45.79	19.87%
	3000	\$339.35	\$407.27	\$67.92	20.02%
	4000	\$448.27	\$538.32	\$90.05	20.09%
	5000	\$557.19	\$669.37	\$112.18	20.13%

#### Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 33 of 39

#### **SMALL GENERAL SERVICE**

	Energy	Month	ly Bill	Increase		
	in kWh	Present	Proposed	Amount	Percent	
					_	
	250	\$38.90	\$44.35	\$5.45	14.01%	
	300	\$44.52	\$50.77	\$6.25	14.03%	
	400	\$55.77	\$63.61	\$7.84	14.06%	
	500	\$67.01	\$76.45	\$9.44	14.08%	
WINTER	600	\$78.26	\$89.29	\$11.03	14.10%	
	750	\$95.13	\$108.56	\$13.43	14.11%	
	1000	\$123.25	\$140.66	\$17.42	14.13%	
	1500	\$179.48	\$204.87	\$25.39	14.15%	
	2000	\$235.71	\$269.08	\$33.37	14.16%	
	3000	\$348.18	\$397.50	\$49.32	14.17%	
	4000	\$460.64	\$525.92	\$65.28	14.17%	
	5000	\$573.11	\$654.34	\$81.23	14.17%	
	250	\$43.92	\$50.01	\$6.09	13.86%	
	300	\$50.55	\$57.56	\$7.01	13.88%	
	400	\$63.80	\$72.67	\$8.87	13.90%	
	500	\$77.06	\$87.77	\$10.72	13.91%	
SUMMER	600	\$90.31	\$102.88	\$12.57	13.92%	
	750	\$110.20	\$125.54	\$15.35	13.93%	
	1000	\$143.34	\$163.31	\$19.97	13.93%	
	1500	\$209.61	\$238.84	\$29.23	13.94%	
	2000	\$275.89	\$314.38	\$38.49	13.95%	
	3000	\$408.45	\$465.45	\$57.00	13.95%	
	4000	\$541.00	\$616.52	\$75.51	13.96%	
	5000	\$673.56	\$767.58	\$94.02	13.96%	
	0.50	<b>0.40.57</b>	<b>#</b> 40.00	ΦΕ 00	40.000/	
	250	\$40.57	\$46.23	\$5.66	13.96%	
	300	\$46.53	\$53.03	\$6.50	13.98%	
	400	\$58.44	\$66.63	\$8.18	14.00%	
	500	\$70.36	\$80.23	\$9.86	14.02%	
AVERAGE	600	\$82.28	\$93.82	\$11.54	14.03%	
MONTHLY	750	\$100.15	\$114.22	\$14.07	14.04%	
	1000	\$129.94	\$148.21	\$18.27	14.06%	
	1500	\$189.52	\$216.19	\$26.67	14.07%	
	2000	\$249.10	\$284.18	\$35.07	14.08%	
	3000	\$368.27	\$420.15	\$51.88	14.09%	
	4000	\$487.43	\$556.12	\$68.69	14.09%	
	5000	\$606.59	\$692.09	\$85.50	14.09%	

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 34 of 39

#### **GENERAL SERVICE (Secondary Voltage)**

Demand	Energy	Ī	Month	ly Bill	Incre	ase
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
		_				
15	3,000	200	\$420.16	\$492.86	\$72.70	17.30%
15	6,000	400	\$618.79	\$728.76	\$109.96	17.77%
15	9,000	600	\$771.89	\$909.24	\$137.35	17.79%
25	5,000	200	\$681.61	\$802.99	\$121.38	17.81%
25	10,000	400	\$1,012.67	\$1,196.15	\$183.48	18.12%
25	15,000	600	\$1,267.83	\$1,496.96	\$229.13	18.07%
50	10,000	200	\$1,335.24	\$1,578.32	\$243.08	18.20%
50	20,000	400	\$1,997.36	\$2,364.64	\$367.28	18.39%
50	30,000	600	\$2,507.67	\$2,966.26	\$458.59	18.29%
75	15,000	200	\$1,988.87	\$2,353.64	\$364.77	18.34%
75	30,000	400	\$2,982.04	\$3,533.12	\$551.08	18.48%
75	45,000	600	\$3,747.52	\$4,435.55	\$688.04	18.36%
100	20,000	200	\$2,642.50	\$3,128.97	\$486.47	18.41%
100	40,000	400	\$3,966.73	\$4,701.61	\$734.88	18.53%
100	60,000	600	\$4,987.36	\$5,904.85	\$917.49	18.40%
200	40,000	200	\$5,257.02	\$6,230.28	\$973.25	18.51%
200	80,000	400	\$7,905.48	\$9,375.56	\$1,470.07	18.60%
200	120,000	600	\$9,946.75	\$11,782.04	\$1,835.29	18.45%
300	60,000	200	\$7,871.55	\$9,331.58	\$1,460.04	18.55%
300	120,000	400	\$11,844.24	\$14,049.50	\$2,205.26	18.62%
300	180,000	600	\$14,906.13	\$17,659.22	\$2,753.09	18.47%
400	80,000	200	\$10,486.07	\$12,432.89	\$1,946.82	18.57%
400	160,000	400	\$15,782.99	\$18,723.45	\$2,940.46	18.63%
400	240,000	600	\$19,865.51	\$23,536.41	\$3,670.89	18.48%
500	100,000	200	\$13,100.59	\$15,534.20	\$2,433.61	18.58%
500	200,000	400	\$19,721.74	\$23,397.39	\$3,675.65	18.64%
500	300,000	600	\$24,824.89	\$29,413.59	\$4,588.70	18.48%
750	150,000	200	\$19,636.89	\$23,287.46	\$3,650.57	18.59%
750	300,000	400	\$29,568.62	\$35,082.26	\$5,513.64	18.65%
750	450,000	600	\$37,223.35	\$44,106.56	\$6,883.20	18.49%
1,000	200,000	200	\$26,173.20	\$31,040.73	\$4,867.53	18.60%
1,000	400,000	400	\$39,415.50	\$46,767.12	\$7,351.62	18.65%
1,000	600,000	600	\$49,621.81	\$58,799.52	\$9,177.71	18.50%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 35 of 39

#### **GENERAL SERVICE (Primary Voltage)**

Demand	Energy	Ī	Month	nly Bill	Incre	ase
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
		-				
15	3,000	200	\$405.01	\$478.40	\$73.39	18.12%
15	6,000	400	\$600.49	\$710.34	\$109.84	18.29%
15	9,000	600	\$750.44	\$886.86	\$136.42	18.18%
25	5,000	200	\$656.36	\$778.89	\$122.53	18.67%
25	10,000	400	\$982.17	\$1,165.45	\$183.28	18.66%
25	15,000	600	\$1,232.08	\$1,459.66	\$227.58	18.47%
50	10,000	200	\$1,284.74	\$1,530.12	\$245.38	19.10%
50	20,000	400	\$1,936.36	\$2,303.24	\$366.88	18.95%
50	30,000	600	\$2,436.17	\$2,891.66	\$455.49	18.70%
75	15,000	200	\$1,913.12	\$2,281.34	\$368.22	19.25%
75	30,000	400	\$2,890.54	\$3,441.02	\$550.48	19.04%
75	45,000	600	\$3,640.27	\$4,323.65	\$683.39	18.77%
100	20,000	200	\$2,541.50	\$3,032.57	\$491.07	19.32%
100	40,000	400	\$3,844.73	\$4,578.81	\$734.08	19.09%
100	60,000	600	\$4,844.36	\$5,755.65	\$911.29	18.81%
200	40,000	200	\$5,055.02	\$6,037.48	\$982.45	19.44%
200	80,000	400	\$7,661.48	\$9,129.96	\$1,468.47	19.17%
200	120,000	600	\$9,660.75	\$11,483.64	\$1,822.89	18.87%
300	60,000	200	\$7,568.55	\$9,042.38	\$1,473.84	19.47%
300	120,000	400	\$11,478.24	\$13,681.10	\$2,202.86	19.19%
300	180,000	600	\$14,477.13	\$17,211.62	\$2,734.49	18.89%
400	80,000	200	\$10,082.07	\$12,047.29	\$1,965.22	19.49%
400	160,000	400	\$15,294.99	\$18,232.25	\$2,937.26	19.20%
400	240,000	600	\$19,293.51	\$22,939.61	\$3,646.09	18.90%
500	100,000	200	\$12,595.59	\$15,052.20	\$2,456.61	19.50%
500	200,000	400	\$19,111.74	\$22,783.39	\$3,671.65	19.21%
500	300,000	600	\$24,109.89	\$28,667.59	\$4,557.70	18.90%
750	150,000	200	\$18,879.39	\$22,564.46	\$3,685.07	19.52%
750	300,000	400	\$28,653.62	\$34,161.26	\$5,507.64	19.22%
750	450,000	600	\$36,150.85	\$42,987.56	\$6,836.70	18.91%
1,000	200,000	200	\$25,163.20	\$30,076.73	\$4,913.53	19.53%
1,000	400,000	400	\$38,195.50	\$45,539.12	\$7,343.62	19.23%
1,000	600,000	600	\$48,191.81	\$57,307.52	\$9,115.71	18.92%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 36 of 39

#### **GENERAL TOD SERVICE (Secondary Voltage)**

Demand	Energy	Г	Month	nly Bill	Incre	ase
in kW	in kWh	Hours	Present	Proposed	Amount	Percent
				Поросси	7	. 0.00
15	3,000	200	\$421.60	\$493.92	\$72.32	17.15%
15	6,000	400	\$617.67	\$726.87	\$109.21	17.68%
15	9,000	600	\$768.20	\$904.42	\$136.22	17.73%
25	5,000	200	\$681.34	\$802.09	\$120.75	17.72%
25	10,000	400	\$1,008.13	\$1,190.35	\$182.22	18.08%
25	15,000	600	\$1,259.02	\$1,486.26	\$227.24	18.05%
50	10,000	200	\$1,330.70	\$1,572.52	\$241.82	18.17%
50	20,000	400	\$1,984.28	\$2,349.03	\$364.76	18.38%
50	30,000	600	\$2,486.05	\$2,940.85	\$454.80	18.29%
75	15,000	200	\$1,980.06	\$2,342.94	\$362.88	18.33%
75	30,000	400	\$2,960.42	\$3,507.72	\$547.30	18.49%
75	45,000	600	\$3,713.09	\$4,395.45	\$682.36	18.38%
100	20,000	200	\$2,629.42	\$3,113.37	\$483.95	18.41%
100	40,000	400	\$3,936.57	\$4,666.40	\$729.83	18.54%
100	60,000	600	\$4,940.12	\$5,850.04	\$909.92	18.42%
200	40,000	200	\$5,226.86	\$6,195.07	\$968.21	18.52%
200	80,000	400	\$7,841.16	\$9,301.15	\$1,459.98	18.62%
200	120,000	600	\$9,848.26	\$11,668.42	\$1,820.16	18.48%
300	60,000	200	\$7,824.30	\$9,276.78	\$1,452.47	18.56%
300	120,000	400	\$11,745.75	\$13,935.89	\$2,190.13	18.65%
300	180,000	600	\$14,756.41	\$17,486.80	\$2,730.39	18.50%
500	100,000	200	\$13,019.19	\$15,440.18	\$2,421.00	18.60%
500	200,000	400	\$19,554.94	\$23,205.37	\$3,650.43	18.67%
500	300,000	600	\$24,572.69	\$29,123.55	\$4,550.86	18.52%
1,000	200,000	200	\$26,006.39	\$30,848.70	\$4,842.31	18.62%
1,000	400,000	400	\$39,077.90	\$46,379.07	\$7,301.18	18.68%
1,000	600,000	600	\$49,113.40	\$58,215.44	\$9,102.05	18.53%
3,000	600,000	200	\$77,955.22	\$92,482.78	\$14,527.56	18.64%
3,000	1,200,000	400	\$117,169.73	\$139,073.89	\$21,904.16	18.69%
3,000	1,800,000	600	\$147,276.23	\$174,583.00	\$27,306.77	18.54%
5,000	1,000,000	200	\$129,904.05	\$154,116.85	\$24,212.80	18.64%
5,000	2,000,000	400	\$195,261.56	\$231,768.71	\$36,507.15	18.70%
5,000	3,000,000	600	\$245,439.07	\$290,950.56	\$45,511.49	18.54%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 37 of 39

#### **GENERAL TOD SERVICE** (Primary Voltage)

	_	F				60% Off-Peak		
Demand	Energy	<u> </u>		hly Bill	Incre			
in kW	in kWh	Hours	Present	Proposed	Amount	Percent		
. =			<b>A</b>	<b>A</b> 1-2 1-	<b></b>			
15	3,000	200	\$406.45	\$479.46	\$73.01	17.96%		
15	6,000	400	\$599.37	\$708.45	\$109.09	18.20%		
15	9,000	600	\$746.75	\$882.04	\$135.29	18.12%		
25	5,000	200	\$656.09	\$777.99	\$121.90	18.58%		
25	10,000	400	\$977.63	\$1,159.65	\$182.02	18.62%		
25	15,000	600	\$1,223.27	\$1,448.96	\$225.69	18.45%		
50	10,000	200	\$1,280.20	\$1,524.32	\$244.12	19.07%		
50	20,000	400	\$1,923.28	\$2,287.63	\$364.36	18.94%		
50	30,000	600	\$2,414.55	\$2,866.25	\$451.70	18.71%		
75	15,000	200	\$1,904.31	\$2,270.64	\$366.33	19.24%		
75	30,000	400	\$2,868.92	\$3,415.62	\$546.70	19.06%		
75	45,000	600	\$3,605.84	\$4,283.55	\$677.71	18.79%		
100	20,000	200	\$2,528.42	\$3,016.97	\$488.55	19.32%		
100	40,000	400	\$3,814.57		\$729.03	19.11%		
100	60,000	600	\$4,797.12	\$5,700.84	\$903.72	18.84%		
200	40,000	200	\$5,024.86	\$6,002.27	\$977.41	19.45%		
200	80,000	400	\$7,597.16	\$9,055.55	\$1,458.38	19.20%		
200	120,000	600	\$9,562.26	\$11,370.02	\$1,807.76	18.91%		
300	60,000	200	\$7,521.30	\$8,987.58	\$1,466.27	19.49%		
300	120,000	400	\$11,379.75	\$13,567.49	\$2,187.73	19.22%		
300	180,000	600	\$14,327.41	\$17,039.20	\$2,711.79	18.93%		
500	100,000	200	\$12,514.19	\$14,958.18	\$2,444.00	19.53%		
500	200,000	400	\$18,944.94	\$22,591.37	\$3,646.43	19.25%		
500	300,000	600	\$23,857.69	\$28,377.55	\$4,519.86	18.95%		
1,000	200,000	200	\$24,996.39	\$29,884.70	\$4,888.31	19.56%		
1,000	400,000	400	\$37,857.90	\$45,151.07	\$7,293.18	19.26%		
1,000	600,000	600	\$47,683.40	\$56,723.44	\$9,040.05	18.96%		
3,000	600,000	200	\$74,925.22	\$89,590.78	\$14,665.56	19.57%		
3,000	1,200,000	400	\$113,509.73	\$135,389.89	\$21,880.16	19.28%		
3,000	1,800,000	600	\$142,986.23	\$170,107.00	\$27,120.77	18.97%		
5,000	1,000,000	200	\$124,854.05	\$149,296.85	\$24,442.80	19.58%		
5,000	2,000,000	400	\$189,161.56	\$225,628.71	\$36,467.15	19.28%		
5,000	3,000,000	600	\$238,289.07	\$283,490.56	\$45,201.49	18.97%		
-,	, ,		,	,,	, -			

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 38 of 39

#### **GENERAL TOD SERVICE (**Transmission Transformed Voltage)

Demand	Energy	Г	Month	nly Bill	-	OII-Peak
	0,				Incre	Percent
III KVV	in Kvvn	Hours	Present	Proposed	Amount	Percent
15	3,000	200	\$390.34	\$453.03	\$62.69	16.06%
15	6,000	400	\$578.40	\$676.59	\$98.20	16.98%
15	9,000	600	\$720.92	\$844.75	\$123.83	17.18%
25	5,000	200	\$629.24	\$733.94	\$104.70	16.64%
25	10,000	400	\$942.68	\$1,106.55	\$163.87	17.38%
25	15,000	600	\$1,180.22	\$1,386.81	\$206.59	17.50%
50	10,000	200	\$1,226.50	\$1,436.22	\$209.72	17.10%
50	20,000	400	\$1,853.38	\$2,181.43	\$328.06	17.70%
50	30,000	600	\$2,328.45	\$2,741.95	\$413.50	17.76%
75	15,000	200	\$1,823.76	\$2,138.49	\$314.73	17.26%
75	30,000	400	\$2,764.07	\$3,256.32	\$492.25	17.81%
75	45,000	600	\$3,476.69	\$4,097.10	\$620.41	17.84%
100	20,000	200	\$2,421.02	\$2,840.77	\$419.75	17.34%
100	40,000	400	\$3,674.77	\$4,331.20	\$656.43	17.86%
100	60,000	600	\$4,624.92	\$5,452.24	\$827.32	17.89%
200	40,000	200	\$4,810.06	\$5,649.87	\$839.81	17.46%
200	80,000	400	\$7,317.56	\$8,630.75	\$1,313.18	17.95%
200	120,000	600	\$9,217.86	\$10,872.82	\$1,654.96	17.95%
300	60,000	200	\$7,199.10	\$8,458.98	\$1,259.87	17.50%
300	120,000	400	\$10,960.35	\$12,930.29	\$1,969.93	17.97%
300	180,000	600	\$13,810.81	\$16,293.40	\$2,482.59	17.98%
500	100,000	200	\$11,977.19	\$14,077.18	\$2,100.00	17.53%
500	200,000	400	\$18,245.94	\$21,529.37	\$3,283.43	18.00%
500	300,000	600	\$22,996.69	\$27,134.55	\$4,137.86	17.99%
1,000	200,000	200	\$23,922.39	\$28,122.70	\$4,200.31	17.56%
1,000	400,000	400	\$36,459.90	\$43,027.07	\$6,567.18	18.01%
1,000	600,000	600	\$45,961.40	\$54,237.44	\$8,276.05	18.01%
3,000	600,000	200	\$71,703.22	\$84,304.78	\$12,601.56	17.57%
3,000	1,200,000	400	\$109,315.73	\$129,017.89	\$19,702.16	18.02%
3,000	1,800,000	600	\$137,820.23	\$162,649.00	\$24,828.77	18.02%
5,000	1,000,000	200	\$119,484.05	\$140,486.85	\$21,002.80	17.58%
5,000	2,000,000	400	\$182,171.56	\$215,008.71	\$32,837.15	18.03%
5,000	3,000,000	600	\$229,679.07	\$271,060.56	\$41,381.49	18.02%

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 6 Page 39 of 39

#### **GENERAL TOD SERVICE** (Transmission Voltage)

Demand	Energy	Г	Month	nly Bill		OII-Peak
in kW	in kWh		Present		Incre Amount	Percent
III KVV	in Kvvn	Hours	Present	Proposed	Amount	Percent
15	3,000	200	\$378.04	\$439.95	\$61.91	16.38%
15	6,000	400	\$565.80	\$663.18	\$97.39	17.21%
15	9,000	600	\$708.02	\$831.01	\$122.99	17.37%
25	5,000	200	\$608.74	\$712.14	\$103.40	16.99%
25	10,000	400	\$921.68	\$1,084.20	\$162.52	17.63%
25	15,000	600	\$1,158.72	\$1,363.91	\$205.19	17.71%
50	10,000	200	\$1,185.50	\$1,392.62	\$207.12	17.47%
50	20,000	400	\$1,811.38	\$2,136.73	\$325.36	17.96%
50	30,000	600	\$2,285.45	\$2,696.15	\$410.70	17.97%
75	15,000	200	\$1,762.26	\$2,073.09	\$310.83	17.64%
75	30,000	400	\$2,701.07	\$3,189.27	\$488.20	18.07%
75	45,000	600	\$3,412.19	\$4,028.40	\$616.21	18.06%
100	20,000	200	\$2,339.02	\$2,753.57	\$414.55	17.72%
100	40,000	400	\$3,590.77	\$4,241.80	\$651.03	18.13%
100	60,000	600	\$4,538.92	\$5,360.64	\$821.72	18.10%
200	40,000	200	\$4,646.06	\$5,475.47	\$829.41	17.85%
200	80,000	400	\$7,149.56	\$8,451.95	\$1,302.38	18.22%
200	120,000	600	\$9,045.86	\$10,689.62	\$1,643.76	18.17%
300	60,000	200	\$6,953.10	\$8,197.38	\$1,244.27	17.90%
300	120,000	400	\$10,708.35	\$12,662.09	\$1,953.73	18.24%
300	180,000	600	\$13,552.81	\$16,018.60	\$2,465.79	18.19%
500	100,000	200	\$11,567.19	\$13,641.18	\$2,074.00	17.93%
500	200,000	400	\$17,825.94	\$21,082.37	\$3,256.43	18.27%
500	300,000	600	\$22,566.69	\$26,676.55	\$4,109.86	18.21%
1,000	200,000	200	\$23,102.39	\$27,250.70	\$4,148.31	17.96%
1,000	400,000	400	\$35,619.90	\$42,133.07	\$6,513.18	18.29%
1,000	600,000	600	\$45,101.40	\$53,321.44	\$8,220.05	18.23%
3,000	600,000	200	\$69,243.22	\$81,688.78	\$12,445.56	17.97%
3,000	1,200,000	400	\$106,795.73	\$126,335.89	\$19,540.16	18.30%
3,000	1,800,000	600	\$135,240.23	\$159,901.00	\$24,660.77	18.23%
5,000	1,000,000	200	\$115,384.05	\$136,126.85	\$20,742.80	17.98%
5,000	2,000,000	400	\$177,971.56	\$210,538.71	\$32,567.15	18.30%
5,000	3,000,000	600	\$225,379.07	\$266,480.56	\$41,101.49	18.24%

October 22, 2020

# **Xcel Energy Company's Marginal Customer and Facilities Cost Analysis**

**Prepared by** 

**Amparo Nieto** 

**Energy and Environmental Economics** 

#### 1. Introduction

Xcel Energy Company (the Company) retained Energy and Environmental Economics (E3) to prepare a electricity marginal cost analysis focused on the components of service that are directly driven by customer additions and customer service. We have conducted this study by reviewing the cost characteristics of Xcel Energy's local distribution facilities, which are a function of customer connections, as well as other percustomer-related marginal costs required by class, including meter, service drop and customer assistance and account expenses. This document provides a high-level overview of the approach and results 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 2021 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 about half of those of the single-family units, reflecting the 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 rates.

**Table 1. Marginal Residential Customer Cost Estimates** 

	Monthly  Marginal Customer  Cost (2021\$/cust.)	Monthly  Marginal Facilities  Cost (2021\$/cust.)	Monthly  Total per-Customer Cost (2021\$/cust.)
Residential Single family	\$11.04	\$9.45	\$20.49
Residential Multi-family	\$5.65	\$4.69	\$10.33
Average Residential	\$9.80	\$8.35	\$18.15



Northern States Power Company Electric Utility - Minnesota VOLTAGE DISCOUNT ANAL Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 8 Page 1 of 4

#### VOLTAGE DISCOUNT ANALYSIS Energy Charge

			Tra	ınsmission	
		Secondary	Primary Tra	ansformed Tra	ansmission
1	E8760 Losses	8.00%	6.29%	3.94%	3.79%
2	Percent Difference	0.00%	1.71%	4.06%	4.22%
3	Prior Percent Difference		1.71%	4.07%	4.21%
4	Percent Difference - Ave		1.71%	4.07%	4.21%
	Proposed General Service - per	r kWh			
3	Base Energy and Fuel - 2021	7.438 ¢	7.311 ¢	7.136 ¢	7.125 ¢
4	Base Energy and Fuel - 2022	7.534 ¢	7.405 ¢	7.228 ¢	7.217 ¢
5	Base Energy and Fuel - 2023	7.700 ¢	7.568 ¢	7.387 ¢	7.376 ¢
	Energy Voltage Discount - per	r kWh			
6	Discount from Secondary - 2021		0.127 ¢	0.302 ¢	0.313 ¢
7	Discount from Secondary - 2022		0.129 ¢	0.306 ¢	0.317 ¢
8	Discount from Secondary - 2023		0.132 ¢	0.313 ¢	0.324 ¢

Northern States Power Company Electric Utility - Minnesota **VOLTAGE DISCOUNT ANALYSIS**  Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 8 Page 2 of 4

### VOLTAGE DISCOUNT ANALYSIS Demand Charge

	CCOSS - Page 2			Transmission		
	Distribution Cost - 2021	Secondary	Primary	Transformed	Total	
1	Sec - Line 35	\$12,249	\$0	\$0	\$12,249	
2	Pri - Line 34	\$58,904	\$15,873	\$0	\$74,777	
3	Sub - Line 33	\$33,670	\$8,892	\$86	\$42,648	
4	Total	\$104,822	\$24,765	\$86	\$129,673	
	Billing KW					
5	Sec	35,818			35,818	
6	Pri	35,818	7,660		43,478	
7	Sub	35,818	7,660	2,751	46,229	
	Losses					
8	Sec	1.0000				
9	Pri	1.0209	1.0000			
10	Sub	1.0367	1.0155	1.0000		
	Billing KW with Losses					
11	Sec	35,818			35,818	
12	Pri	36,567	7,660		44,227	
13	Sub	37,133	7,779	2,751	47,662	
	Cost per kW - 2021					
14	Sec (1) / (15)	\$0.34			\$0.34	(a)
15	Pri (2) / (16)	\$1.64	\$2.07		\$1.69	(b)
16	Sub (3) / (17)	\$0.94	\$1.16	\$0.03	\$0.89	(c)
De	mand Voltage Discoun	2021 Cost		Present	Proposed	
	rimary (a)	\$0.34		\$0.80	\$0.70	
	r Transformed (a) + (b)	\$2.03		\$1.55	\$1.75	
	rans (a) + (b) + (c)	\$2.93		\$2.35	\$2.50	

Northern States Power Company Electric Utility - Minnesota Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 8 Page 3 of 4

#### VOLTAGE DISCOUNT ANALYSIS Demand Charge

	CCOSS - Page 2			Transmission		
	Distribution Cost - 2022	Secondary	Primary	Transformed	Total	
1	Sec - Line 35	\$12,673	\$0	\$0	\$12,673	
2	Pri - Line 34	\$65,522	\$17,044	\$0	\$82,567	
3	Sub - Line 33	\$37,056	\$9,445	\$76	\$46,577	
4	Total	\$115,251	\$26,490	\$76	\$141,817	
	Billing KW					
5	Sec	35,818			35,818	
6	Pri	38,074	7,660		45,733	
7	Sub	38,074	7,940	2,751	48,765	
	Losses					
8	Sec	1.0000				
9	Pri	1.0209	1.0000			
10	Sub	1.0367	1.0155	1.0000		
	Billing KW with Losses					
11	Sec	35,818			35,818	
12	Pri	36,567	7,660		44,227	
13	Sub	37,133	7,779	2,751	47,662	
	Cost per kW - 2022					
14	Sec (1) / (15)	\$0.35			\$0.35	(a)
15	Pri (2) / (16)	\$1.83	\$2.23		\$1.87	(b)
16	Sub (3) / (17)	\$1.03	\$1.23	\$0.03	\$0.98	(c)
Dei	mand Voltage Discoun	2022 Cost		Present	Proposed	
	rimary (a)	\$0.35		\$0.80	\$0.70	
	r Transformed (a) + (b)	\$2.22		\$1.55	\$1.90	
	rans (a) + (b) + (c)	\$3.20		\$2.35	\$2.70	
		п = := 0		π = .00	π —	

Northern States Power Company

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1), Schedule 8 Page 4 of 4

### Electric Utility - Minnesota VOLTAGE DISCOUNT ANALYSIS **Demand Charge**

	CCOSS - Page 2			Transmission		
	Distribution Cost - 2023	Secondary	Primary	Transformed	Total	
1	Sec - Line 35	\$13,891	\$0	\$0	\$13,891	
2	Pri - Line 34	\$74,855	\$19,334	\$0	\$94,189	
3	Sub - Line 33	\$40,921	\$10,324	\$143	\$51,388	
4	Total	\$129,668	\$29,658	\$143	\$159,469	
	Billing KW					
5	Sec	35,818			35,818	
6	Pri	37,725	7,660		45,384	
7	Sub	37,725	7,863	2,751	48,338	
	Losses					
8	Sec	1.0000				
9	Pri	1.0209	1.0000			
10	Sub	1.0367	1.0155	1.0000		
	Billing KW with Losses					
11	Sec	35,818			35,818	
12	Pri	36,567	7,660		44,227	
13	Sub	37,133	7,779	2,751	47,662	
	Cost per kW - 2023					
14	Sec (1) / (15)	\$0.39			\$0.39	(a)
15	Pri (2) / (16)	\$2.09	\$2.52		\$2.13	(b)
16	Sub (3) / (17)	\$1.14	\$1.35	\$0.05	\$1.08	(c)
Dei	mand Voltage Discoun	2023 Cost		Present	Proposed	
	rimary (a)	\$0.39		\$0.80	\$0.70	
	r Transformed (a) + (b)	\$2.52		\$1.55	\$2.10	
	rans (a) + (b) + (c)	\$3.60		\$2.35	\$2.95	
1.1	(a) (b) (c)	Ψ3.00		Ψ2.33	ΨΔ.73	

## LED Street Light Fuel Cost Savings (2016-2021) Estimates for Oct-2020 through Dec-2021

Estimate	es for Oct	-2020 thr	ough De	c-2021			Fatt	met		Eucl C	Cost &	F-4	in start	ППО 1	Eucl O	00t #	0
I	LI	ED Unit	Count			Fuel		<b>mated</b> uivalent		Fuel C	ost \$		imated Lamp+Ba		T	ost \$	Cost Difference
	Eq	uivalent	Wattage	)	Ltg	Cost	100W	150W		400W		100W	150W	250W	400W		LED
Month	100W	150W	250W	400W	Hrs	Rate	39W	65W	155W	246W	Cost	117W	171W	307W	482W	Cost	Savings
Yr2016	400	00	4		044	0.04700	00	-	0	0	40	400	40	_	_	404	
6 7	198 -	26 -	- -	-		0.01762 0.01668	33	7 0	3 0		43 0	100	19 0	5 0	0	124 0	
8	1,082	142	21	-		0.01747	216	47	17		280	648	124	33	0	806	
9	457	60	9	-			106	23	8		137	317	61	16	0	394	
10 11	1,055 1,751	149 336	50 130	5 14		0.01811 0.01917	293 552	69 177	55 163		424 920	878 1,657	181 465	108 324	16 55	1,184 2,500	
12	3,161	597	243	29		0.01917	1,016	320	310		1,706	3,049	842	614	117	4,623	
Total											3,512					9,630	6,119
<b>Yr2017</b>	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		0.01743	2,477	1,357	410		4,280	7,432	3,569	813	69	11,884	
3	11,845	3,650	524	22		0.01653	2,787	1,431 2,317	490		4,741	8,361	3,766	971	64 71	13,162	
4 5	19,699 16,094	6,004 4,460	1,222 921	25 26	269	0.01999 0.02085	4,561 3,520	1,626	,	36 35	8,039 5,983	13,684 10,561	6,095 4,277	2,227 1,587	71 69	22,077 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 8	18,886 24,868	5,220 10,693	1,449 3,214	24 24	258 293	0.01961 0.01653	3,727 4,697	1,717 3,366	1,136		6,609 10,505	11,180 14,092	4,516 8,856	2,250 4,778	59 56	18,005 27,783	
9	27,675	9,304	2,122	24			6,204	3,476		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 12	23,454 23,131	7,855 7,699	2,292 2,255	24 24		0.02015 0.01994	7,778 8,347	4,341 4,630		50 55	15,190 16,266	23,334 25,040	11,421 12,181	5,983 6,406	98 107	40,836 43,734	
Total		.,088 	<u>,</u> _	<b>_</b> _	<del>-104</del>	0.01334	0,347	<del>-</del> ,030	J,2J4 		104,118	25,040	14,101 			281,817	177,699
Yr2018	04.07	0.445	0.005	2.	4	0.0010	0.555	F 1=:	0.000			00.0==	40.00	7.000			
1 2	24,973 24,577	8,112 7.892	2,392 2,397	24 24		0.02194 0.02222	9,552 7,965	5,171 4,263	•		18,417 15,365	28,655 23,896	13,604 11,215	7,202 6.115	113 96	49,574 41,322	
3	29,020	8,419		24		0.01981		3,957	,			24,550					
4	29,528	8,349	2,800	24		0.01954	6,683	3,149			12,385	20,050	8,285	4,988	67	33,390	
5 6	30,557 31,862	8,552 8,935	2,947 3,046	24 24		0.02289 0.02288	7,338 6,937	3,423 3,242			13,609 12,848	22,014 20,811	9,004 8,529	5,571 5,221	71 65	36,660 34,626	
7	34,530	9,664	3,289	24		0.02201	7,647	3,567			-	22,942	9,384	5,734	66	38,126	
8	35,930	10,115	3,284	24		0.01788	7,341	3,444	,		13,483	22,023	9,061	5,282	61	36,427	
9 10	40,108 37,297	10,479 10,345	3,441 3,460	24 24		0.02414 0.02146	12,612 12,268	5,492 5,671	•		22,452 22,511	37,835 36,803	14,447 14,920	8,518 8,958	93 98	60,894 60,778	
11	36,771	10,451	3,356	21	422	0.02040	12,346	5,848			-	37,037	15,385	8,868	87	61,378	
12 Total	37,862	10,780	3,471	23	464	0.02176	14,909	7,075	5,432	57	27,473	44,727	18,612	10,759	112	74,211	257 007
Total Yr2019											210,791					568,778	357,987
1	36,403	10,284	3,337	21		0.02118	13,441				-	40,323	•	9,699	96	66,767	
2 3	53,778 63,290	16,299 17,642	3,355 3,581	25 24		0.01571 0.02087	12,323 18,802	6,225 8,735			21,639 31,811	36,969 56,407	16,375 22,980	6,052 8,374	71 88	59,468 87,850	
4	62,135	18,217	3,676	24		0.02087	14,912				25,741	44,737	19,170	6,944	71	70,922	
5	50,496	14,045	3,639	24		0.02311	12,243	5,675			21,461	36,728	14,930	•	72	58,675	
6 7	70,924 53,784	21,398 16,273	3,696 3,684	24 24		0.01894 0.02363	12,783 12,788	6,428 6,449			21,885 22,754	38,348 38,364	16,910 16,965	5,244 6,896	53 71	60,555 62,295	
8	57,721	17,426	3,665	24		0.02082	13,733	6,910			24,144		18,178	6,864	71	66,311	
9	57,825	17,498	3,634	24		0.01885	14,198	7,161			24,942	42,595	18,838	7,024	73	68,530	
10 11	57,878 57,265	17,545 17,278	3,689 3,616	24 24		0.01848 0.01821	16,394 17,162	8,283 8,630			28,872 30,145	49,181 51,487	21,790 22,705	8,225 8,531	84 89	79,280 82,811	
12	57,812	17,556	3,673	24		0.01676	17,102				30,881	52,601			90	84,807	
Yr											308,993					848,271	539,278
<b>Yr2020</b>	56,906	17,255	3,640	24	447	0.01940	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		0.01966	16,342				28,740	49,027			83	78,926	
4 5	57,918 57,550	17,605 17,457	3,665 3,641	24 24		0.02030 0.02416	13,619 14,587	6,899 7,374	•		23,978 25,667	40,856 43,760	18,150 19,401	6,784 7,265	70 75	65,859 70,501	
6	61,523	18,542	3,660	24	244	0.02456	14,379	7,223	3,400	35	25,036	43,136	19,001	6,733	69	68,940	
7 8	60,223 56,561	18,197 17,085	-	24 24		0.02130	12,907		•		-	38,721			64 71	62,265 65,044	
8 9	56,561 75,755	17,085 22,669	3,605 3,707	24 24		0.02083 0.02257	13,463 22,272				23,687 37,755	40,388 66,815		6,754 8,578	71 87	65,044 104,703	
10	60,253	18,200	3,668	24	393	0.02181	20,142	10,140	4,874	51	35,206	60,425	26,675	9,653	99	96,852	
11 12	60,253 60,253	18,200 18,200	3,668 3,668	24 24		0.01974 0.01831	19,575 19,964	•			34,216 34,896	58,725 59,892			96 98	94,128 95,999	
Yr	∪∪,∠ᢒ <i>3</i> 	10,200	J,000 		404	0.01031	19,904	10,050	+,o51 	 	34,896 <b>356,719</b>	J9,092	∠∪,44U 	<i>უ</i> ,ენგ 	98	95,999 <b>981,411</b>	624,692
Yr2021			_					_	_					_			
1 2	60,253 60,253	18,200 18,200	3,668 3,668	24 24		0.01816 0.02048	19,075 17,999	9,603 9,061				57,225 53,997			94 89	91,724 86,549	
3	60,253	18,200	3,668	24 24		0.02046	18,261	9,061			-	54,782		-	90	87,807	
4	60,253	18,200	3,668	24		0.02239	15,626	7,867	3,781	39	27,313	46,879	-	-	77 70	75,140	
5 6	60,253 60,253	18,200 18,200	3,668 3,668	24 24		0.02537 0.02834	16,037 16,249	8,073 8,180			28,031 28,402	48,110 48,748			79 80	77,114 78,136	
7	60,253	18,200	3,668	24		0.02034	14,660	7,380			-	43,979		7,766	72	70,492	
8	60,253	18,200	3,668	24		0.02359	16,242	8,177			28,390		21,511	7,784	80	78,101	
9 10	60,253 60,253	18,200 18,200	3,668 3,668	24 24		0.02266 0.02150	17,785 19,855	8,953 9,996			31,086 34,705	53,355 59,566	23,554 26,296		88 98	85,520 95,475	
11	60,253	18,200	3,668	24	422	0.01938	19,218	9,675	4,650	48	33,592	57,654	25,452	9,211	95	92,412	
12 <b>Yr</b>	60,253	18,200	3,668	24	464	0.01811	19,746	9,941	4,778	50	34,514 <b>368,377</b>	59,238	26,151	9,464	97	94,950 <b>1 013 420</b>	645,044
Total											368,377 1,352,509	<u></u>				1,013,420 3 703 328	2,350,819

Total 1,352,509 3,703,328 2,350,819 Northern States Power Company Electric Utility - Minnesota Test Year Ending December 31, 2021

Fuel Clause Rider - Fuel Adjustment Factor Calculation

Docket No. E002/GR-20-723 Exhibit\_\_\_(SVH-1) Schedule 10 Page 1 of 1

			SERV	ICE CATEG	ORY		
		C&I		C&I		Outdoor	
	Residential	Non-Dmd		Demand		Lighting	RETAIL
STEP 1: CLASS RATIOS							
1. Hourly Marginal Energy Costs x Hourly Loads*	\$185,143,877	\$16,892,867		\$369,803,629		\$2,033,859	\$573,874,233
2. MWh Energy at Generator	9,418,977	853,962		19,129,126		130,965	29,533,030
3. Load-Weighted Marginal Energy Cost /MWh =(1)/(2)	\$19.656	\$19.782		\$19.332		\$15.530	\$19.432
4. Class Ratio (Class Unit Cost / Retail Unit Cost)	1.0116	1.0180		0.9949		0.7992	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 Margina	al Energy Costs			1.45	6		
6. C&I Demand Class Time-of-Day Percentages from 8760	) loads			0.4022	0.5978		
7. C&I Demand TOD On-Peak Ratio = 1 / (0.4022 + (0.5	978 / 1.456)) **			1.2303			
8. C&I Demand TOD Off-Peak Ratio = 1 / ((1.456 x 0.40)	22) + 0.5978)) **				0.8450		
9. C&I Demand Non-TOD On-Peak Weighting	, , , , ,		0.4202				
10. C&I Demand Non-TOD Off-Peak Weighting			0.5798				
11. C&I Demand Non-TOD Ratio = (0.4202 x 1.2303) + (0.4202 x 1.2303)	0.5798 x 0.8450)		1.0069				
STEP 3: FUEL ADJUSTMENT FACTOR							
12. FAF = Step 1, or for C&I Demand, Step 1 x Step 2	1.0116	1.0180	1.0018	1.2240	0.8407	0.7992	
	(4)	(4)	(4) x (11)	(4) x (7)	(4) x (8)	(4)	

<sup>\*</sup> E8760 Allocator = Sum of Hourly System Marginal Costs times Hourly Class Loads

<sup>\*\*</sup> Based on C&I Demand Weighted Average = (40.22% class on-peak x on-peak charge) + (59.78% class off-peak x off-peak charge)