

Direct Testimony and Schedules  
Steven V. Huso

Before the South Dakota Public Utilities Commission  
State of South Dakota

In the Matter of the Application of Northern States Power Company,  
a Minnesota corporation  
for Authority to Increase Rates for Electric Service in South Dakota

Docket No. EL09-\_\_\_\_  
Exhibit\_\_\_\_(SVH-1)

**Rate Design**

June 30, 2009

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1 **I. INTRODUCTION AND QUALIFICATIONS**

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Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Steven V. Huso. My business address is 414 Nicollet Mall, 7<sup>th</sup> Floor, Minneapolis, Minnesota 55401.

Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am employed by Xcel Energy Services Inc., which is the service company subsidiary of Xcel Energy Inc. My position is Pricing Consultant.

Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

A. I develop rate design, revenue determinations, and support other pricing functions for the utility operating subsidiaries of Xcel Energy Inc. I began my employment with Northern States Power Company as a pricing analyst in 1979. I held the position of Administrator-Rate Research from 1992 until I began my current position in 2000, except for the period of 1993 to 1995, when I had the position of Administrator-Pricing for Northern States Power Company-Wisconsin. My qualifications and experience are further described in Exhibit\_\_(SVH-1), Schedule 1.

Q. FOR WHOM ARE YOU TESTIFYING?

A. I am providing testimony on behalf of Northern States Power Company, a Minnesota corporation, operating in South Dakota (“Xcel Energy” or the “Company”).

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

1 A. My testimony presents the Company's rate-revenue analysis used to develop  
2 retail revenues at present and proposed rates, proposed class-revenue  
3 responsibility, and electric rate design proposals. I am also sponsoring the  
4 Company's rate schedules and tariffs.

5

6 Q. WHAT SCHEDULES ARE YOU SPONSORING IN THIS FILING?

7 A. My Exhibit\_\_\_\_(SVH-1) includes the following schedules:

8

9 • Schedule 1 – Statement of Qualifications and Experience

10 • Schedule 2 – Sales and Revenue by Rate Schedule

11 • Schedule 3 – Revenue by Rate Class

12 • Schedule 4 – Summary of Present and Proposed Rates

13 • Schedule 5 – Monthly Bills Using Present and Proposed Rates

14 • Schedule 6 – Fuel Clause Service Category Ratios

15 • Schedule 7 -- Wind Source Rider Calculation

16

17 I am also sponsoring several schedules related to the proposed tariff changes  
18 along with the tariffs themselves. Those Schedules are located in Volume 3 of  
19 the Application.

20

21 • Schedule 8 - Company Tariff Table of Contents

22 • Schedule 9 - List of Proposed Tariff Sheets

23 • Schedule 10 – Summary List of Tariff Change

24 • Schedule 11 – Rate Schedules and Tariffs (Redlined)

25 • Schedule 12 – Rate Schedules and Tariffs (Non-Redlined)

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27

1 **II. RATE REVENUE ANALYSIS**

2  
3 Q. WHAT ARE THE 2008 TEST-YEAR ELECTRIC REVENUES FROM SALES AT PRESENT  
4 AND PROPOSED RATE LEVELS?

5 A. Table 1 below shows 2008 test-year revenues at present and proposed rates  
6 for the Electric Utility – South Dakota retail jurisdiction. Revenues are shown  
7 for total retail rate revenues and the proposed increase in other revenues. The  
8 proposed increase in other revenues represents proposed increases to non-  
9 retail charges, which are used to offset a portion of the retail revenue increase.

10 **Table 1**  
11 **Test-Year Revenue (\$1,000's)**  
12

	<b>Present</b>	<b>Proposed</b>	<b>Proposed Increase</b>	<b>Percent Increase</b>
Retail Rate Revenue	146,384	164,856	18,472	12.62%
Other Revenue Increases	0	111	111	
Total	146,384	164,967	18,583	12.69%

13  
14 Ms. Anne Heuer presents the total revenue deficiency in her direct testimony.  
15 Test-year revenues are based on an application of test-year sales, supported by  
16 Ms. Jannell Marks in her direct testimony, to both present and proposed rates.

17  
18 Q. HAVE YOU PROVIDED MORE DETAILED COMPARISONS OF TEST-YEAR  
19 REVENUES?

20 A. Yes. I prepared the following summary and detailed comparisons of present  
21 and proposed rate revenues:

22  
23 **1. Sales and Revenue by Rate Schedule**

24 – Filed as Exhibit\_\_\_\_(SVH-1), Schedule 2

25 **2. Revenue by Rate Class**

1           – Filed as Exhibit\_\_\_\_(SVH-1), Schedule 3

2           **3. Sales and Revenue by Rate Schedule and Component**

3           – Filed in Required Information, Statement I, located in Volume 1 of  
4           the Application.

5  
6   Q. PLEASE DESCRIBE SCHEDULES 4 AND 5 IN YOUR EXHIBIT\_\_\_\_(SVH-1).

7   A. Schedule 4 compares present base rates to proposed base rates both with and  
8       without fuel costs. Schedule 5 is a monthly bill comparison of the present and  
9       proposed rates at different usage levels.

10  
11   Q. DO PROPOSED REVENUES RECOVER THE COSTS OF THE TRANSMISSION COST  
12       RECOVERY (“TCR”) RIDER AND THE ENVIRONMENTAL COST RECOVERY  
13       (“ECR”) RIDER, TO THE EXTENT THOSE ARE BEING ROLLED INTO THE BASE  
14       REVENUE REQUIREMENT?

15   A. Yes. Proposed revenues were developed to recover the proposed test year  
16       revenue requirement, which includes the combined TCR and ECR cost of  
17       \$2.9 million as discussed in Ms. Heuer’s direct testimony. The revenue  
18       requirement includes this cost to reflect the Company’s proposal to transfer  
19       cost recovery from the TCR and ECR Riders to base rates. These Riders  
20       became effective February 2009 and customer bills already include recovery of  
21       these costs. However, because present 2008 test year revenue excludes rider  
22       costs, the proposed revenue deficiency also reflects the increase in the base  
23       rate revenue requirement. Showing the proposed revenue deficiency without  
24       the impact of rider costs would more precisely represent the actual cost  
25       increase associated with this rate case filing, because customers are already  
26       paying the Rider costs.

1 Q. HOW MUCH OF THE PROPOSED RETAIL INCREASE IS ASSOCIATED WITH THE  
2 PROPOSAL TO MOVE TCR AND ECR RIDER COSTS INTO BASE RATES?

3 A. As shown below in Table 2, these Rider costs account for approximately two  
4 percent of the proposed increase. However, because customers are already  
5 paying these costs through separate TCR and ECR Riders, the net retail  
6 average bill impact of the proposed revenue deficiency is a 10.71 percent  
7 increase, rather than the proposed 12.69 percent increase.

8  
9 **Table 2**  
10 **Test-Year Revenue – Rider Impact (\$1,000’s)**  
11

<b>Total Revenue</b>	<b>Present</b>	<b>Proposed</b>	<b>Proposed Increase</b>	<b>Percent Increase</b>
With TCR and ECR	146,384	164,967	18,583	12.69%
TCR and ECR Cost	0	2,900	2,900	
Without TCR and ECR	146,384	162,067	15,683	10.71%

12  
13  
14 **III. CLASS REVENUE RESPONSIBILITY**  
15

16 Q. HOW DID THE COMPANY DETERMINE THE PROPOSED DISTRIBUTION OF CLASS  
17 REVENUE RESPONSIBILITY?

18 A. The primary guideline was the embedded class cost-of-service study  
19 (“CCOSS”), sponsored by Mr. Michael Peppin in his direct testimony.  
20 Proposed class revenue responsibility is based on a moderate movement  
21 towards the CCOSS level, by removing half of class revenue subsidies. I  
22 describe this process later in this section of my testimony. The Lighting class  
23 increase was further moderated by limiting its increase to the percentage  
24 increase proposed for the Residential class. This approach promotes equitable



1 and accurate pricing by minimizing, to the extent practical, revenue subsidies  
2 between classes and rate schedules.

3  
4 Q. PLEASE COMPARE PRESENT AND PROPOSED REVENUES BY SERVICE CLASS WITH  
5 THE RESULTS OF THE CCOSS.

6 A. Revenues by major CCOSS classes are compared in Table 3 below. In the  
7 table, class revenue at “cost” is the adjusted revenue requirement from the  
8 CCOSS.

9  
10 **Table 3**  
11 **Retail Rate Revenue by CCOSS Class (\$1,000’s)**  
12

Class	Present	Proposed	Cost	Prop Inc	Prop %
Residential	58,452	66,864	67,939	8,412	14.4%
Non-Demand	8,457	9,640	9,754	1,182	14.0%
C&I Demand	78,095	86,776	85,599	8,681	11.1%
Lighting	1,379	1,576	1,675	197	14.3%
Total Retail	146,384	164,856	164,967	18,472	12.6%
Other Rev Inc.		111		111	
Total	146,384	164,967	164,967	18,583	12.7%

13  
14 Q. IS THE PROPOSED 14.4 PERCENT RESIDENTIAL CLASS INCREASE REASONABLY  
15 MODERATE COMPARED TO THE 12.7 PERCENT AVERAGE RETAIL INCREASE?

16 A. Yes. The 14.4 percent increase is 1.7 percent more than the average increase  
17 of 12.7 percent. It would have required a 16.2 percent increase for Residential  
18 revenues to equal the cost of service. Thus, the modest 1.7 percent  
19 differential represents only half of the 3.5 percent differential between an  
20 average increase and the increase that would set revenues at the cost of  
21 service. The proposed increase appropriately provides a key step towards  
22 recognizing actual cost responsibility. Taken in the context of Residential base

1 energy rates that have not changed for over 16 years, the proposed differential  
2 represents a small average annual change.

3  
4 Q. WILL OTHER FACTORS MITIGATE THE PROPOSED 14.4 PERCENT RESIDENTIAL  
5 CLASS INCREASE FOR THE 2008 TEST YEAR?

6 A. Yes. The actual customer impact of implementing the proposed 14.4 percent  
7 Residential increase is reduced by the transfer of the currently separate TCR  
8 and ECR Rider charges into base rates and the proposed crediting of  
9 wholesale margins to fuel costs. As discussed above, the Rider transfer  
10 reduces the effective proposed rate increase by approximately two percent. As  
11 discussed in Ms. Heuer's direct testimony, the wholesale margin proposal has  
12 the appearance of increasing retail rates by \$1.8 million, or 1.2 percent. Also,  
13 system average fuel costs are 10 percent lower through May of this year than  
14 the corresponding period of the 2008 test year. This average cost decrease of  
15 0.27¢ per kWh is directly passed through to customers through the Fuel  
16 Clause Rider. If this cost decrease were sustained, on an annual basis it would  
17 reduce the proposed Residential class increase by approximately three percent.  
18 A six percent decrease to the proposed Residential increase, which is the  
19 combined impact of the Rider cost transfer, wholesale margin credits, and a  
20 sustained fuel cost decrease, would substantially mitigate residential bill  
21 impacts.

#### 22 23 **IV. RATE DESIGN OBJECTIVES**

24  
25 Q. WHAT ARE THE COMPANY'S OBJECTIVES WHEN DEVELOPING ITS ELECTRIC  
26 RATE STRUCTURE?

27 A. The following are the Company's main electric rate design objectives:

- 1 1. Yield total revenues equal to Test Year revenue requirements, to provide a  
2 reasonable opportunity for the Company to earn its authorized return on  
3 investment.
- 4 2. Accurately reflect the resource costs of providing service and, where  
5 appropriate, reflect the market value of provided services.
- 6 3. Provide sufficient flexibility in pricing and associated conditions of service  
7 to maintain competitive electric service in the broader energy market.
- 8 4. Achieve practical objectives of reasonable rate continuity, customer  
9 understanding, revenue stability, and administrative reasonableness.

10  
11 Q. HAS THE COMPANY USED MARGINAL COSTS IN ITS RATE DESIGN IN ORDER TO  
12 ACHIEVE THESE OBJECTIVES?

13 A. Yes. Proposed rates reflect marginal costs to advance the rate design objective  
14 of accurately reflecting the resource costs of providing service. Marginal costs  
15 are directly applied to proposed rates in areas such as time-of-day (“TOD”)  
16 energy charge ratios. Proposed rate levels and relationships also are directly  
17 influenced by the CCOSS, which makes significant use of marginal cost  
18 information, including system hourly marginal energy costs. The use of  
19 marginal cost in the CCOSS is discussed in the direct testimony of Mr. Peppin.  
20 The Company also uses marginal cost analysis as a guide in developing  
21 interruptible rate programs and for evaluating their cost-effectiveness. The  
22 Company also uses marginal cost information in establishing purchase power  
23 rates offered to customers who are small power producers.

24  
25 **V. RATE DESIGN PROPOSALS**

26  
27 Q. PLEASE SUMMARIZE YOUR RATE DESIGN TESTIMONY.

1 A. My rate design testimony discusses material changes in the design and level of  
2 proposed rates. My testimony does not include a discussion of proposed  
3 changes in rate levels that only represent proposed revenue responsibilities  
4 with no significant change in rate design.

5  
6 **A. Fuel Clause Rider**

7 Q. IS THE COMPANY PROPOSING CHANGES TO ITS FUEL CLAUSE RIDER TARIFF?

8 A. Yes the Company is proposing a number of revisions to its Fuel Clause Rider  
9 (“FCR”) tariff. The tariff title has changed to Fuel Cost Rider to more clearly  
10 describe its purpose. Proposed structural changes to the FCR mechanism are  
11 described in detail below. The proposed changes are driven by the following  
12 considerations:

- 13
- 14 1. The need to accurately allocate to customers their cost of fuel and  
15 purchased energy costs, particularly as those costs change over time.
  - 16
  - 17 2. The growing interest in a one-part fuel cost charge (combining into a single  
18 rate what was previously the base cost of energy and the monthly  
19 adjustment). The fuel cost charge would be itemized on customer bills  
20 along with the separate base energy charge. No fuel costs would be  
21 recovered through base energy charges.
  - 22
  - 23 3. The need for a mechanism to support sharing with retail customers the  
24 wholesale margins resulting from intersystem sales transactions on a  
25 current actual basis rather than a fixed test year basis.
  - 26

1 4. The need to refine and clarify the language of the FCR tariff to make it  
2 easier to understand what costs are included and the basic mechanics of the  
3 tariff.

4  
5 Q. PLEASE SUMMARIZE HOW XCEL ENERGY'S CURRENT FCR TARIFF WORKS.

6 A. As a part of general rate case filings, updated test year costs of fuel and  
7 purchased energy are established and allocated to customer classes. In  
8 previous rate cases, the updated fuel cost allocation has been included in the  
9 energy charges of each tariff, along with other energy-related costs. The  
10 updated base cost of fuel is converted into a system average fuel cost per kWh.  
11 After new base rates were implemented, the difference between the ongoing  
12 fuel costs and the test year "base" cost of fuel is defined as the current  
13 monthly fuel adjustment charge. This fuel adjustment charge, combined with  
14 the base fuel cost included in base energy charges, would provide recovery of  
15 total fuel costs.

16  
17 Specifically, actual fuel and purchased energy costs (using a rolling 2-month  
18 average) would be compared to the test year "base" cost of fuel, and the  
19 difference becomes the primary element in the Fuel Clause Adjustment  
20 ("FCA") charge for the next month. The other element in the FCA is the  
21 "true-up" factor, which is a fine-tuning mechanism that reconciles fuel costs  
22 and revenues from previous months.

23  
24 Q. IS THERE A CONCERN ASSOCIATED WITH THIS CURRENT METHOD?

25 A. The present FCR mechanism worked very well for decades when fuel cost  
26 changes were less dramatic than in recent years. However, rapid changes in  
27 fuel cost levels, and the extended periods between general rate cases when

1 base fuel costs and class cost allocations are updated, have reduced the  
2 precision of class cost responsibility when recovering fuel costs because  
3 changes in fuel cost were recovered between rate cases using a single average  
4 per kWh charge that is applied to all customers. Consequently, between rate  
5 cases a higher percent of fuel costs have been recovered through monthly  
6 FCA charges that do not recognize the class cost differences that are  
7 recognized in base energy charges.

8  
9 Q. COULD YOU ELABORATE ON THIS CONCERN?

10 A. Let me begin by explaining what is not a concern. The concern is not with the  
11 FCR base cost. Historically, this component of the FCR recovered the bulk of  
12 total costs because the monthly FCAs were small. Furthermore, the FCR base  
13 cost is accurately allocated to classes based on the different class use patterns  
14 and marginal energy cost relationships. The classes' cost responsibilities  
15 resulting from this approach were then built into the energy charges of each  
16 tariff.

17  
18 The concern arises because of the high monthly FCAs that have occurred in  
19 recent years. The FCAs are the difference between the actual average-system-  
20 cost per kWh and the test year FCR base cost. Because the FCAs are directly  
21 applied to kWh usage, that portion of fuel cost recovery does not reflect class  
22 cost differences.

23  
24 Historically, this method of recovering the actual deviations from test year  
25 FCR base costs was reasonable and appropriate. Deviations were small and  
26 more frequent rate cases provided timely re-allocation of any sustained cost  
27 deviations from the previous test year FCR base cost. Furthermore, the

1 simplicity of the method made it easy to understand and efficient to  
2 administer.

3  
4 However, in recent years market-driven fuel and purchased energy costs have  
5 escalated rapidly, and the interval between rate cases has been more extended.  
6 The result has been that customer classes that use relatively more energy  
7 during off-peak periods pay too much through these FCAs. Conversely,  
8 classes with relatively more on-peak use pay too little.

9  
10 Q. WHAT CHANGES IN THE FCR TARIFF ARE PROPOSED TO ADDRESS THIS  
11 CONCERN?

12 A. The Company's proposed changes can be summarized as follows:

- 13  
14 1. Eliminate the current two-part FCR structure, which includes a test year  
15 FCR base cost and a monthly FCA, which tracks cost deviations from the  
16 FCR base cost.  
17  
18 2. Replace it with a one-part FCR structure where each month, total fuel and  
19 purchased energy costs are determined and divided by system sales, to yield  
20 a system average Fuel Cost Factor ("FCF").  
21  
22 3. Apply "Service Category Ratios" (specific to the six service categories  
23 described below) to this system average FCF, to obtain service-category-  
24 specific FCFs.  
25  
26 4. Apply the service category specific FCFs to individual customer kWh use  
27 to obtain a total Fuel Cost Charge ("FCC") shown on the customers' bill.

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The “Service Category Ratios” for 3 of the 4 primary classes (i.e. Residential, Commercial and Industrial (“C&I”) Non-Demand and Outdoor Lighting), are the same as the “Class Ratios,” which are developed directly from the proposed E8760 energy allocator, which is described in Mr. Peppin’s direct testimony.

For the 4<sup>th</sup> primary class (C&I Demand), the E8760-derived “Class Ratio,” is further de-averaged into three separate “Service Category Ratios,” one each for the “Service Categories” of: (1) Non-TOD; (2) On-Peak TOD; and (3) Off-Peak TOD. The de-averaging of the C&I Demand “Class Ratio” is based on the TOD usage of the Non-TOD and TOD customer groups and a TOD energy cost ratio.

Q. PLEASE ELABORATE ON HOW THESE ELEMENTS WOULD BE APPLIED TO PRODUCE THE SERVICE-CATEGORY-SPECIFIC FCFs.

A. This mechanism is straightforward. For each service category, a fixed allocation cost ratio is applied to average system fuel cost for each month. These Service Category Ratios represent cost relationships that provide appropriate fuel charges for each service-category. This process extends to future fuel costs the same cost allocation that is currently restricted to the base cost of fuel as defined in the last test year. The advantage of this mechanism is that going forward from the test year, all fuel costs will be accurately allocated to customer classes. The mechanics of this method are provided in my Schedule 6 of Exhibit\_\_\_\_(SVH-1), which itemizes the development of the “Service Category Ratios.” The resulting Service Category Ratios are summarized in the below table.



1  
2  
3  
4

**Table 4**  
**Proposed Fuel Adjustment Factors**

<b>Service Category</b>	<b>FAF Ratio</b>
Residential	1.0094
C&I Non-Demand	1.0332
C&I Demand Non-TOD	1.0108
C&I Demand TOD On-Peak	1.3158
C&I Demand TOD Off-Peak	0.7510
Outdoor Lighting	0.8171

5  
6

7 Q. DOES THIS NEW ONE-PART FCR MECHANISM RESULT IN A DIFFERENT  
8 PRESENTATION OF FUEL COSTS UNDER PROPOSED RATES AS COMPARED TO  
9 PRESENT RATES?

10 A. Yes. For example, in the past, the Residential tariff included: (1) the customer  
11 charge; (2) the energy charge (that included among other costs, the test year  
12 FCR base fuel cost); and (3) the FCA charge, which included only the fuel cost  
13 deviations from the FCR base fuel cost.

14  
15 Under our proposed FCR tariff, the energy charge will not include any fuel  
16 costs. All fuel and purchased energy costs are instead presented in one  
17 separate component in the tariffs and on customers' bills.

18  
19 Q. ARE ANY SPECIFIC COMMISSION AUTHORIZATIONS NECESSARY TO  
20 IMPLEMENT THE COMPANY'S PROPOSED FCR MECHANISM?

21 A. Generally, the Commission would need to approve the method described  
22 above and illustrated in Schedule 6 of Exhibit\_\_\_\_(SVH-1). The specific  
23 approvals would include: (1) authorization to eliminate the current two-part  
24 FCR mechanism (i.e. "base" cost with FCA deviations from the "base"); and

1 (2) authorization to implement the proposed one-part FCR mechanism, which  
2 includes the use of six service category FCFs, which are derived from the  
3 average system costs of fuel and purchased energy.  
4

5 Q. IS THE COMPANY REQUESTING A WAIVER OF ANY SOUTH DAKOTA RULES IN  
6 ORDER TO IMPLEMENT THE PROPOSED CHANGES TO THE FCR?

7 A. It is our belief that a waiver of South Dakota Rules is unnecessary. The rules  
8 do not address the allocation of costs between classes, which is the primary  
9 change we are propose, nor does charging a single fuel rate compared to the  
10 current process of recovering the cost through two cost components change  
11 the amount charged the customer. However, if the Commission’s  
12 interpretation of the applicable South Dakota Rules is such that it believes a  
13 waiver is necessary, then the Company requests such a waiver.  
14

15 Q. ARE THERE OTHER TARIFF REVISIONS NEEDED TO ACCOMMODATE THE  
16 COMPANY’S PROPOSED NEW ONE-PART FCR MECHANISM?

17 A. Yes. As I indicated earlier, the “energy charge” components of all the current  
18 tariffs include the FCR base costs of fuel. And the monthly FCAs are a  
19 second separate rate component. However, under the Company’s proposed  
20 tariffs, this FCR base cost and the monthly FCAs are added together and this  
21 total is charged as a separate one-part fuel cost charge (“FCC”). This change  
22 in the FCR structure requires minor language changes in the following tariffs:  
23 (1) Residential Controlled Air Conditioning & Water Heating Rider, and (2)  
24 Time of Delivery Purchase Service.  
25

26 Q. PLEASE DESCRIBE THE LANGUAGE CHANGE IN THE RESIDENTIAL  
27 CONTROLLED AIR CONDITIONING & WATER HEATING RIDER?

1 A. The Residential Controlled Air Conditioning & Water Heating Rider (“Saver’s  
2 Switch”) has a provision that refers to the Saver’s Switch discount applying to  
3 the “energy charge” of a corresponding service tariff. The current “energy  
4 charge” includes the FCR base cost. In order for the Saver’s Switch discount  
5 to function as intended, the language must be modified to make it clear that  
6 the discount now applies to energy and fuel cost charges.

7  
8 Q. WHAT CHANGE IS NEEDED FOR THE TIME OF DELIVERY PURCHASE SERVICE  
9 RATES?

10 A. This tariff specifies payments from the Company to customers for energy  
11 supplied from customers’ small generators. This tariff includes a “Fuel  
12 Clause” provision. The effect of this provision is to add the FCA (FCC under  
13 the proposed tariff) to the purchased energy payment that is separately listed.  
14 The purchased energy payment is based on the Company’s avoided costs  
15 (marginal costs) and as such is already fully compensatory.

16  
17 Therefore, to avoid significant over-payment for energy purchased under these  
18 contracts, the current FCA or the proposed FCC payment should be  
19 eliminated. Leaving this provision in place, especially with the new FCC,  
20 would result in substantial over-payment for energy purchased under these  
21 tariffs. The resulting payment would include the Company’s total average fuel  
22 and purchased energy costs on top of the avoided cost payment. The  
23 proposed language changes for these tariffs are shown in redline format in  
24 Schedule 11 of the Proposed Tariffs in the Company’s filing.

25  
26 Q. DOES THE COMPANY’S PROPOSED FCR TARIFF INCLUDE ANY OTHER  
27 SIGINFICANT REVISIONS?

1 A. Yes. The Company is proposing a different method for sharing intersystem  
2 sales margins with customers than has been used in the past. This change is  
3 discussed in the direct testimony of Ms. Heuer.

4

5 Q. PLEASE EXPLAIN THIS DIFFERENT METHOD FOR SHARING INTERSYSTEM SALES  
6 MARGINS.

7 A. In the past, a fixed test year amount of margins obtained from intersystem  
8 energy sales was applied to the revenue requirements, which lowered the base  
9 rate revenue requirements for retail customers. In this case, the Company is  
10 proposing a new method for sharing asset-based margins from intersystem  
11 sales with the retail customers.

12

13 The new proposal is to credit 100 percent of these intersystem sales asset-  
14 based margins with customers by means of a credit to the monthly FCR cost  
15 recovery mechanism and to do so on an actual basis as the asset-based  
16 margins are earned. On an annual basis, we propose crediting 25 percent of  
17 the margins from non-asset based sales, as more fully described in the direct  
18 testimony of Ms. Heuer. This margin credit mechanism is described in detail  
19 in the Company's proposed FCR tariff.

20

21 Q. YOU INDICATED EARLIER THE NEED TO MAKE SOME LANGUAGE REVISIONS IN  
22 THE FCR TARIFF TO MAKE IT EASIER TO UNDERSTAND. DOES THE  
23 COMPANY'S PROPOSED FCR TARIFF INCLUDE THESE ADDITIONAL  
24 LANUGUAGE CHANGES?

25 A. Yes, all of the proposed language changes in the FCR tariff are shown in the  
26 red line version of the filed tariffs, my Schedule 11, located in Volume 3 of the  
27 Application. The language changes include the changes necessary to

1 implement the proposed new one-part FCR mechanism and the new method  
2 for sharing wholesale margins. These two significant revisions account for the  
3 bulk of the language changes. The Company has also made other less  
4 substantive language changes, the purpose of which is to make the somewhat  
5 complex FCR tariff a little easier to understand.

6  
7 **B. Residential Service**

8 Q. DOES THE PROPOSED RATE DESIGN MODIFY THE WINTER DECLINING BLOCK  
9 ENERGY CHARGES?

10 A. Yes. Present Residential energy charges are flat during the summer months of  
11 June through September, and include a declining block during other months  
12 for usage over 1000 kWh. Proposed energy charges extend the flat summer  
13 energy rate design to all months of the year. The present winter rate  
14 differential – the rate decrease for usage over 1000 kWh per month – is 0.51¢  
15 per kWh for residential customers without electric space heating and 1.98¢ per  
16 kWh for residential electric space heating customers. As I describe later, we  
17 do, however, propose a lower winter energy rate for electric space heating  
18 customers coupled with a higher customer charge.

19  
20 Q. WHY IS THE COMPANY PROPOSING THIS CHANGE?

21 A. A declining block rate structure does not accurately reflect the cost of service  
22 and may encourage higher energy usage, which can result in higher system  
23 costs over time. Flat energy rates are proposed to replace the present winter  
24 declining block rate structure.

25  
26 Q. WHAT OTHER CHANGES IN THE RESIDENTIAL RATE DESIGN ARE PROPOSED?

1 A. The Residential Service customer charge for overhead service is proposed to  
2 change from \$6.55 to \$7.50 per month. This 14.5 percent customer charge  
3 increase is close to the proposed 14.4 percent increase overall for the  
4 residential customer class. This proposed customer charge provides more  
5 equitable pricing by moving the Residential customer charges closer to the  
6 Residential customer cost of \$17.93 per month, as shown in the CCOSS. This  
7 customer charge increase also will mitigate the impact of moving to flat winter  
8 energy rates on higher usage customers without space heating, by increasing  
9 slightly the bills paid by lower usage customers and reducing the effect of the  
10 increase on higher usage customers.

11

12 Q. IS THE SEPARATE RATE STRUCTURE FOR ELECTRIC SPACE HEATING CUSTOMERS  
13 RETAINED IN THE PROPOSED RESIDENTIAL SERVICE TARIFF?

14 A. Yes. The present tariff includes a lower winter end-step energy rate for  
15 electric space heating customers, which recognizes the lower average cost per  
16 kWh of electric space heating usage. The proposed tariff continues to  
17 recognize this cost difference through the combination of a flat winter energy  
18 rate that is 1.20¢ per kWh less than the proposed standard winter energy rate  
19 and a \$3.00 higher customer charge.

20

21 Q. WHY IS A HIGHER CUSTOMER CHARGE PROPOSED FOR ELECTRIC SPACE  
22 HEATING CUSTOMERS?

23 A. During the winter months (October through May), the proposed tariff applies  
24 a lower space heating energy rate to all energy use, as opposed to only usage  
25 over 1000 kWh. The higher customer charge allows a lower winter energy rate  
26 by reducing the over-recovery of customer-related costs that would otherwise  
27 occur as a result of the higher winter kWh usage of electric space heating

1 customers. This over-recovery results from the significant amount of  
2 customer-related costs that are recovered through the energy charge. An  
3 additional benefit of the higher customer charge is that it provides a  
4 disincentive to non-space heating customers requesting service as a space  
5 heating customer in order to receive the lower electric space heating rate. This  
6 disincentive occurs because the higher customer charge is not offset by the  
7 lower energy rate savings at the lower energy usage levels that are more typical  
8 of customers that do not use electric space heating.

9  
10 Q. IF THE ELECTRIC SPACE HEATING CUSTOMER CHARGE WERE SET TO BE THE  
11 SAME AS THE NON-SPACE HEATING CUSTOMER CHARGE, WHAT AFFECT WOULD  
12 THAT HAVE ON THE ENERGY CHARGE?

13 A. A slight increase to the present winter declining block rate differential would  
14 be required. The Company's proposed flat rate design provides is simpler, and  
15 better reflects cost.

16  
17 Q. IS THE PROPOSED REVENUE INCREASE DIFFERENT FOR ELECTRIC SPACE  
18 HEATING CUSTOMERS?

19 A. Yes. The proposed revenue increase is 12.1 percent for electric space heating  
20 customers and 14.5 percent for without electric space heating. The proposed  
21 total Residential average increase is 14.4 percent. This space heating rate  
22 differential is supported by the CCOSS, which shows revenue deficiencies of  
23 11.6 percent for space heating and 15.3 percent for non-space-heating  
24 customers.

25  
26 Q. PLEASE EXPLAIN THE PROPOSED CONSOLIDATION OF SEPARATE RESIDENTIAL  
27 RATE SCHEDULES FOR OVERHEAD AND UNDERGROUND SERVICE.

1 A. The Company proposes combining the separate underground service rate  
2 schedules for non-TOD and TOD rates into the existing overhead service rate  
3 schedules. The two Residential underground tariffs are identical to the  
4 corresponding overhead tariffs except the customer charge is \$2.00 per month  
5 more for underground service. By adding another Customer Charge line to  
6 the otherwise identical tariffs, the two separate underground versions can be  
7 eliminated. The Company proposes this consolidation for efficiency and  
8 simplicity.

9

10 Q. WHY IS THE COMPANY PROPOSING TO ELIMINATE OPTIONAL PEAK PERIODS  
11 FOR RESIDENTIAL TOD SERVICE?

12 A. The optional peak periods have not helped attract Residential customers to  
13 TOD service and are less important to the cost basis for TOD service.

14

15 **C. General Service and General Time-of-Day Service**

16 Q. PLEASE EXPLAIN THE PROPOSED RATE DESIGN FOR GENERAL SERVICE AND  
17 GENERAL TOD SERVICE.

18 A. The proposed rates retain the present rate design of equal demand charges and  
19 equivalent energy charges for General Service and General TOD Services.  
20 The present seasonal demand charge differential of \$2.61 per kW was  
21 increased to \$3.00 per kW to better reflect seasonal cost differences. The  
22 proposed 1.60 ratio of on-peak to off-peak TOD energy rates is an increase  
23 from the present 1.33 ratio, but also moderated from the 1.75 ratio of  
24 marginal energy costs.



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**D. Peak-Controlled and Peak-Controlled Time-of-Day Services**

Q. PLEASE EXPLAIN THE TWO OPTIONS FOR THE CONTROLLABLE DEMAND CHARGE COMPONENT OF THE PEAK-CONTROLLED AND PEAK-CONTROLLED TOD SERVICES.

A. There are two sets of controllable demand charge options, which are applied to an interruptible customer’s controllable kW demand. Option A controllable demand charges are the same every month, which produces a higher summer controllable demand discount (firm demand charge less the controllable demand charge) relative to seasonal firm demand charges. Option B controllable demand charges, which have been closed to new load since at least 1993, have the same seasonal differential as firm demand charges. Consequently, the resulting Option B controllable demand discounts are not seasonally differentiated, but are the same each month.

Q. WHY IS THE COMPANY PROPOSING TO CANCEL OPTION B CONTROLLABLE DEMAND CHARGES?

A. Option B was closed because it did not provide the seasonal controllable demand discounts that recognize the higher value of controllable demand during summer months. Therefore, Option B over-compensates interruptible service customers that have higher controllable demand levels outside of summer peak season months. With less than five percent of controllable demand billed under Option B, it is now reasonable to cancel this option.

**E. Real-Time Pricing**

Q. DOES THE COMPANY HAVE A REAL-TIME PRICING (“RTP”) RATE OPTION AVAILABLE IN SOUTH DAKOTA?

1 A. No. The Company has had an RTP option available for larger customers  
2 (over 1000 kW) in Minnesota and Wisconsin since 1996, and established that  
3 option in North Dakota earlier this year. However, RTP has not been a  
4 widely accepted rate option – currently in the available states, a total of three  
5 customers are receiving RTP service (two of these customers have multiple  
6 accounts).

7

8 Q. WOULD THE COMPANY BE WILLING TO ESTABLISH RTP SERVICE IN SOUTH  
9 DAKOTA?

10 A. Yes. Although RTP is a complex rate option to develop and administer, the  
11 Company would be willing to propose establishing RTP service if the  
12 Commission or any qualifying South Dakota customers expressed a significant  
13 interest. A challenging RTP issue for the Company, however, is the resulting  
14 reduced revenue without offsetting cost reductions. As an optional rate,  
15 customers typically select RTP if existing load patterns are able to offset the  
16 additional perceived risk of its more variable and less certain pricing.

17

18 **F. Street Lighting Service – Purchased Equipment**

19 Q. ARE ANY REVISIONS PROPOSED TO THE SERVICES AVAILABLE UNDER THE  
20 STREET LIGHTING SERVICE – PURCHASED EQUIPMENT TARIFF?

21 A. Yes, some service “Groups” were canceled. The Company proposes to cancel  
22 the Group II and Group III service distinctions, which are no longer used by  
23 any customers. Current rates for Group II and Group III services are priced  
24 at the Group I rates less a small discount. The Group II service distinction is  
25 the use of ballglobe glassware or nonstandard ballasts in place of standard  
26 equipment. The Group III service distinction is that the customer supplies  
27 the glassware and ballast.

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**G. Windsorce Energy Rider**

Q. IS THE COMPANY PROPOSING A NEW OPTION THAT WILL ALLOW CUSTOMERS TO PURCHASE RENEWABLE ENERGY?

A. Yes, the Company is proposing a Windsorce Energy Rider that is similar to the Windsorce programs it offers in Minnesota, Wisconsin and Colorado. The new tariff will give customers the opportunity to voluntarily purchase some or all of their electrical energy from renewable resources. The proposed new Windsorce Energy Rider tariff is included in Schedule 11, Volume 3 of the Application.

Q. WILL THIS PROGRAM IMPOSE ANY COSTS ON NON-PARTICIPATING CUSTOMERS?

A. No. It is structured to recover all program costs only from participating customers through a voluntary renewable energy charge. No incremental program costs are charged to other customers.

Q. HOW IS THE PROPOSED WINDSORCE ENERGY RIDER STRUCTURED?

A. The Windsorce Energy Rider allows customers to purchase renewable energy in blocks of 100 kWh. The minimum commitment period is one year for residential customers and three years for commercial and industrial customers. The proposed Windsorce rate is 3.60¢ per kWh, as shown in Exhibit No.\_\_(SVH-1), Schedule 7, Page 1 of 2. This charge is in addition to the standard rate, with the exception that the fuel cost charge from the FCR Rider does not apply to the Windsorce energy use because it replaces conventional energy sources.

1 The result is that the net incremental cost of Windsource energy (as compared  
2 to conventional energy) will vary from month to month as the comparison to  
3 the FCR fuel cost rate changes. However, as an example, Windsource energy  
4 would be approximately 0.76¢ per kWh more than the combined standard  
5 Residential energy rate and the average FCR cost of 2.84¢ per kWh.

6  
7 Q. WILL WINDSOURCE ALWAYS COST MORE THAN REGULAR RATES?

8 A. Not necessarily. Windsource reflects annual costs, while the FCR reflects a  
9 two-month moving average cost. The average annual FCR cost is expected to  
10 be less than the Windsource price, but that may not be true for every month –  
11 particularly for summer months that typically have higher fuel costs. In the  
12 Company’s other Windsource states, during months when the FCR price  
13 exceeded the Windsource price, this led some non-participants to the  
14 misunderstanding that “Windsource is cheaper than the regular rate.” Some  
15 of these customers then switched to Windsource, based solely on price, only  
16 to be disappointed in the long run due to lack of savings. The Company now  
17 tries to inform potential Windsource customers to not be misled by monthly  
18 price swings.

19  
20 Q. HOW WOULD THE “COST TRACKER” BE USED TO SET THE WINDSOURCE PRICE?

21 A. As indicated in the Windsource Energy Rider, the Company will maintain a  
22 monthly “cost tracker” of program revenues and expenses. The Company  
23 would file the tracker balance annually with the Commission each October 1st,  
24 starting in 2011. This timing would allow any proposed revised price to be  
25 placed in effect for the following calendar year. The Company would seek to  
26 adjust the Windsource Energy Rider rate to reflect significant changes in  
27 forecasted costs. Such a revised price would include a “true up” of the tracker

1 balance for any over- or under-recovery of prior period costs, along with  
2 interest.

3  
4 Exhibit\_\_\_(SVH-1), Schedule 7, Page 1 of 2, (referred to previously) shows  
5 the “pro forma” tracker for 2010 and is the basis for the Company’s proposed  
6 Windsource Energy Rider rate of 3.60 cents per kWh. Note that by applying  
7 this rate, the year-to-date (YTD) tracker value in the lower, right corner ends  
8 with a value of zero, reflecting that the proposed rate would recover current  
9 costs.

10  
11 Q. WHAT COST COMPONENTS ARE INCLUDED IN THE WINDSOURCE ENERGY  
12 RIDER?

13 A. The largest cost component in the Windsource Energy Rider is the cost of the  
14 renewable energy itself. However, as can be seen from the “pro forma”  
15 tracker, the rate also includes marketing and administration costs. The rate  
16 also includes a capacity credit to renewable energy costs. This credit  
17 recognizes the added value of capacity that the incremental renewable energy  
18 brings to the total system, which would otherwise be acquired through  
19 construction or purchases of additional peaking capacity. The credit is  
20 calculated in Exhibit\_\_\_(SVH-1), Schedule 7, Page 2 of 2, based on the latest  
21 information from the Midwest Independent Transmission System Operator  
22 (“MISO”), of which Xcel Energy is a member.

23  
24 Q. WOULD CUSTOMERS ACTUALLY RECEIVE 100% “GREEN ELECTRONS?”

25 A. No. The Company, of course, cannot track individual electrons. Even if  
26 tracking were possible, it would reveal a chaotic assortment of electrons from  
27 all types of generating sources. Further, the variable nature of renewable

1 generation resources would continuously change the production output of the  
2 facilities dedicated to this Rider, to levels above and below subscribed  
3 capacity. During shortfalls, Rider customers would “borrow” electricity from  
4 non-renewable generation. During times of excess renewable production, this  
5 program would not only meet subscribed levels, but would offset the debt to  
6 traditional generation. Rather than an expectation of receiving 100% green  
7 electrons, the Company would encourage Windsource customers to use the  
8 more relevant standard of the net annual effect. During the course of a year, a  
9 Windsource customer’s revenue will produce incremental green power for  
10 Xcel Energy’s overall system.

11  
12 Q. HOW CLOSELY WILL THE RIDER’S ANNUAL PRODUCTION MATCH SALES?

13 A. In the early years of the Minnesota Windsource program, it was difficult to  
14 match program production with sales. When an entire wind farm was  
15 dedicated to the program, it often caused a quick, lumpy swing from under-  
16 supply to over-supply. However, the Company has recently adopted a  
17 smoother and more precise approach that dedicates only a certain percentage  
18 of a new wind farm to the Windsource program. In future years, a higher  
19 percentage of a given wind farm can be dedicated as required to match sales.  
20 This approach does not guarantee a perfect annual match, but is a significant  
21 improvement.

22  
23 Q. HOW WOULD RENEWABLE ENERGY CREDITS (“RECS”) APPLY?

24 A. RECs are purchases of renewable energy from other producers. Prior to using  
25 the improved matching approach discussed above, the Company realized it  
26 could experience multi-year supply shortfalls. To expedite the balancing of  
27 program production and sales, the program was designed with a REC option

1 to allow the Company to purchase enough RECs to offset shortfalls.  
2 Although the electricity associated with shortfalls was generated in traditional  
3 non-renewable power plants, the purchased RECs would “turn brown power  
4 green.” While RECs were typically associated with green power produced  
5 outside the Company’s service territory, the Company understands that  
6 Windsource program participants would still prefer restricting the supply of  
7 Windsource electricity to the Company’s renewable resources. Going forward,  
8 the Company hopes its new method will allow that, but it still believes that the  
9 REC option should be retained.

10  
11 Q. WHAT SUPPLY SOURCES WOULD THE PROGRAM EMPLOY?

12 A. This Rider’s primary electric source would be wind. But other renewables,  
13 such as solar and biogas, could eventually be included.

14  
15 Q. WHAT PARTIES WOULD OWN THIS RIDER’S RESOURCES?

16 A. Power Purchase Agreements (“PPAs”) negotiated with third parties would  
17 supply the initial renewable electricity. But in the future, the Company expects  
18 to directly own a reasonable share of this Rider’s total supply.

19

1 **VI. TARIFFS**

2  
3 Q. ARE YOU SPONSORING THE PROPOSED TARIFFS?

4 A. Yes, I am. My Schedule 11 is a copy of the proposed tariffs in legislative  
5 format. My Schedule 12 is a copy of the proposed tariffs in non-legislative  
6 format. The tariffs are located in Volume 3 of the Application

7  
8 Q. HAVE YOU PREPARED OTHER SCHEDULES RELATED TO THE PROPOSED TARIFF  
9 CHANGES?

10 A. Yes. My Schedule 8 is the Company Tariff Table of Contents; Schedule 9 is a  
11 List of Proposed Tariff Sheets; and Schedule 10 is a Summary List of Tariff  
12 Change. These are also located in Volume 3 of the Application.

13  
14 **VII. CONCLUSION**

15  
16 Q. CAN YOU PLEASE SUMMARIZE YOUR CONCLUSIONS?

17 A. The proposed distribution of revenue requirements by major customer class is  
18 reasonable and provides a moderate movement toward the cost of service.  
19 The Company's proposed rates are reasonable, consistent with its rate design  
20 objectives, and improve customer equity.

21  
22 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

23 A. Yes, it does.



## **Statement of Qualifications and Experience**

### **Steven V. Huso**

I graduated from St. Olaf College in 1976 with a Bachelor of Arts degree in Mathematics and Economics. In 1979, I graduated from the University of St. Thomas with a Master of Business Administration degree.

I am currently employed as a Pricing Consultant with Xcel Energy. In 1979, I began employment as a pricing analyst with Northern States Power Company, now Xcel Energy. I had the position of Administrator-Rate Research from 1992, until I began my current position in 2000, except for the period of 1993 to 1995, when I held the position of Administrator-Pricing for Northern States Power Company-Wisconsin.

My job responsibilities include developing rate design, revenue determinations, and pricing function support for the utility operating subsidiaries of Xcel Energy. I have also developed several papers and a book chapter on electric utility pricing issues.

I have sponsored rate design testimony in proceedings before state regulatory commissions in Minnesota, North Dakota, South Dakota, Wisconsin, and Colorado.

**SALES AND REVENUE BY RATE SCHEDULE**

Service Schedule	Revenues (\$1,000's)											
	Average Customers	MWH Sales			Summer		Winter		Annual		Increase	
		Summer	Winter	Annual	Present	Proposed	Present	Proposed	Present	Proposed	Amount	Percent
<b>Residential</b>												
Residential	69,876	237,711	399,747	637,458	22,802	25,919	35,504	40,773	58,306	66,692	8,385	14.38%
Resid Heat Pump	67	241	934	1,175	20	22	54	65	74	87	13	17.74%
Load Management	90	222	1,062	1,283	14	16	59	69	72	85	13	18.21%
<b>Res Total</b>	<b>70,034</b>	<b>238,174</b>	<b>401,742</b>	<b>639,916</b>	<b>22,835</b>	<b>25,957</b>	<b>35,617</b>	<b>40,907</b>	<b>58,452</b>	<b>66,864</b>	<b>8,412</b>	<b>14.39%</b>
<b>C&amp;I - Non-Demand</b>												
Small General	7,087	32,519	65,842	98,362	2,995	3,427	5,401	6,143	8,396	9,570	1,174	13.99%
Small General TOD	34	185	460	645	15	17	33	38	48	55	7	14.47%
Load Management	7	54	85	139	5	5	7	7	11	12	1	7.35%
<b>C&amp;I N-D Total</b>	<b>7,128</b>	<b>32,759</b>	<b>66,387</b>	<b>99,146</b>	<b>3,014</b>	<b>3,449</b>	<b>5,441</b>	<b>6,188</b>	<b>8,455</b>	<b>9,637</b>	<b>1,182</b>	<b>13.98%</b>
<b>C&amp;I - Demand</b>												
General	2,767	226,738	404,387	631,126	17,201	19,226	27,612	30,745	44,813	49,971	5,158	11.51%
General TOD	140	134,147	237,245	371,392	8,411	9,279	13,647	14,950	22,058	24,229	2,171	9.84%
Peak-Controlled	68	18,740	38,886	57,626	1,407	1,588	2,654	2,986	4,061	4,574	513	12.63%
Peak-Controlled TOD	9	30,193	39,296	69,489	1,745	1,922	2,194	2,430	3,938	4,352	414	10.51%
Energy-Controlled	31	21,135	39,724	60,859	1,128	1,277	2,097	2,372	3,225	3,650	425	13.18%
<b>C&amp;I Dmd Total</b>	<b>3,014</b>	<b>430,954</b>	<b>759,537</b>	<b>1,190,491</b>	<b>29,892</b>	<b>33,293</b>	<b>48,203</b>	<b>53,483</b>	<b>78,095</b>	<b>86,776</b>	<b>8,681</b>	<b>11.12%</b>
<b>C&amp;I Total</b>	<b>10,142</b>	<b>463,713</b>	<b>825,925</b>	<b>1,289,637</b>	<b>32,907</b>	<b>36,743</b>	<b>53,644</b>	<b>59,671</b>	<b>86,550</b>	<b>96,413</b>	<b>9,863</b>	<b>11.40%</b>
<b>Public Authorities</b>												
Siren Service	0	0	0	0	1	1	2	2	2	3	0	9.62%
<b>PA Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>9.62%</b>
<b>Lighting</b>												
System Service	0	438	1,230	1,668	159	188	317	376	476	564	88	18.38%
Energy	0	1,160	3,333	4,492	85	99	204	239	289	338	49	17.06%
Metered Energy	155	1,115	3,281	4,396	76	86	218	249	294	336	42	14.24%
Protective Lighting	0	634	1,798	2,432	104	109	215	229	320	338	18	5.72%
<b>Lighting Total</b>	<b>155</b>	<b>3,346</b>	<b>9,642</b>	<b>12,988</b>	<b>424</b>	<b>483</b>	<b>955</b>	<b>1,093</b>	<b>1,379</b>	<b>1,576</b>	<b>197</b>	<b>14.29%</b>
<b>Total Retail</b>	<b>80,330</b>	<b>705,233</b>	<b>1,237,309</b>	<b>1,942,542</b>	<b>56,166</b>	<b>63,183</b>	<b>90,217</b>	<b>101,673</b>	<b>146,384</b>	<b>164,856</b>	<b>18,472</b>	<b>12.62%</b>
Other Rev Increase					0	37	0	74	0	111	111	
<b>Total Revenue</b>	<b>80,330</b>	<b>705,233</b>	<b>1,237,309</b>	<b>1,942,542</b>	<b>56,166</b>	<b>63,220</b>	<b>90,217</b>	<b>101,747</b>	<b>146,384</b>	<b>164,967</b>	<b>18,583</b>	<b>12.69%</b>

**REVENUE BY RATE CLASS**

Summer		Winter		Annual		Increase	
Present	Proposed	Present	Proposed	Present	Proposed	Amount	Percent

**Total Revenues (\$1,000's)**

Residential Regular	21,969	24,937	33,446	38,518	55,415	63,455	8,040	14.51%
Res Space Heating	883	1,038	2,206	2,427	3,090	3,464	375	12.13%
Total Residential	22,852	25,975	35,653	40,944	58,505	66,919	8,414	14.38%
Small Comm. & Ind.	24,601	27,556	40,794	45,523	65,395	73,079	7,684	11.75%
Large Comm. & Ind.	8,393	9,278	13,030	14,339	21,423	23,618	2,195	10.25%
Total Comm. & Ind.	32,994	36,834	53,824	59,862	86,817	96,696	9,879	11.38%
Street Lighting	319	373	740	865	1,059	1,238	179	16.87%
Public Authorities	1	1	2	2	2	3	0	9.62%
Total Retail	56,166	63,183	90,217	101,673	146,384	164,856	18,472	12.62%
Other Revenues Incr.	0	37	0	74	0	111	111	
Retail + Increases	56,166	63,220	90,217	101,747	146,384	164,967	18,583	12.69%

**Base Revenues (\$1,000's)**

Residential Regular	15,459	18,367	22,808	27,781	38,267	46,147	7,880	20.59%
Res Space Heating	622	774	1,420	1,633	2,043	2,407	365	17.86%
Total Residential	16,081	19,140	24,228	29,414	40,309	48,554	8,245	20.45%
Small Comm. & Ind.	15,291	18,198	23,797	28,444	39,088	46,642	7,554	19.33%
Large Comm. & Ind.	4,509	5,476	6,512	7,987	11,021	13,463	2,442	22.16%
Total Comm. & Ind.	19,801	23,674	30,308	36,432	50,109	60,106	9,997	19.95%
Street Lighting	242	310	517	682	759	993	234	30.77%
Public Authorities	1	1	2	2	2	3	0	9.62%
Total Retail	36,125	43,126	55,055	66,530	91,180	109,655	18,476	20.26%
Other Revenues Incr.	0	37	0	74	0	111	111	
Retail + Increases*	36,125	43,163	55,055	66,604	91,180	109,766	18,587	20.38%

**Fuel Revenues (\$1,000's)**

Base	7,701	0	13,511	0	21,213	0	-21,213	
Adj.	12,340	20,057	21,651	35,143	33,991	55,200	21,209	
Total	20,042	20,057	35,162	35,143	55,204	55,200	-4	

\*The \$18,587 in the Increase / Amount column is \$4,000 higher than the actual retail revenue increase recovered through the proposed rates and is the result of rounding with respect to fuel costs.

**COMPARISON OF PRESENT & PROPOSED RATES**

Fuel Cost - Retail	Present			Proposed		
	Summer	Winter	Annual	Summer	Winter	Annual
Retail	1.969 ¢	1.625 ¢	1.750 ¢	3.061 ¢	2.717 ¢	2.842 ¢
Residential	1.969 ¢	1.625 ¢	1.750 ¢	3.089 ¢	2.743 ¢	2.869 ¢
C&I - Non-Demand	1.969 ¢	1.625 ¢	1.750 ¢	3.162 ¢	2.807 ¢	2.936 ¢
C&I-Dmd - Non-TOD	1.969 ¢	1.625 ¢	1.750 ¢	3.094 ¢	2.746 ¢	2.872 ¢
C&I-Dmd -TOD On-Peak	1.969 ¢	1.625 ¢	1.750 ¢	4.027 ¢	3.575 ¢	3.739 ¢
C&I-Dmd -TOD Off-Peak	1.969 ¢	1.625 ¢	1.750 ¢	2.299 ¢	2.041 ¢	2.134 ¢
Lighting	1.969 ¢	1.625 ¢	1.750 ¢	2.501 ¢	2.220 ¢	2.322 ¢

		Present	Proposed	Present	Proposed
Residential (E01, E03)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$6.55	\$7.50	\$6.55	\$7.50
	Underground	\$8.55	\$9.50	\$8.55	\$9.50
	Overhead - Electric Sp Ht	\$6.55	\$10.50	\$6.55	\$10.50
	Underground - Electric Sp Ht	\$8.55	\$12.50	\$8.55	\$12.50
Energy / kWh	Summer	7.250 ¢	7.434 ¢	9.219 ¢	10.523 ¢
	Winter 0-1000 KWH	6.260 ¢	6.234 ¢	7.885 ¢	8.977 ¢
	Winter Over 1000 KWH	5.750 ¢	6.234 ¢	7.375 ¢	8.977 ¢
	Win Sp Heat 0-1000 KWH	6.260 ¢	5.034 ¢	7.885 ¢	7.777 ¢
	Win Sp Heat Over 1000 KWH	4.280 ¢	5.034 ¢	5.905 ¢	7.777 ¢

Residential Time of Day (E02, E04)		Base Rates		Rates + Fuel	
Customer / Mo.	Overhead	\$8.55	\$9.50	\$8.55	\$9.50
	Underground	\$10.55	\$11.50	\$10.55	\$11.50
	Overhead - Electric Sp Ht	\$8.55	\$12.50	\$8.55	\$12.50
	Underground - Electric Sp Ht	\$10.55	\$14.50	\$10.55	\$14.50
Energy / kWh	On-Peak Summer	13.680 ¢	16.526 ¢	15.649 ¢	19.615 ¢
	On-Peak Winter	10.910 ¢	13.318 ¢	12.535 ¢	16.061 ¢
	On-Peak Winter -Elec. Sp Ht	9.020 ¢	10.603 ¢	10.645 ¢	13.346 ¢
	Off-Peak Summer	3.280 ¢	2.000 ¢	5.249 ¢	5.089 ¢
	Off-Peak Winter	3.280 ¢	2.000 ¢	4.905 ¢	4.743 ¢

Residential Heat Pump (E06)		Base Rates		Rates + Fuel	
Customer / Mo.		\$2.50	\$3.00	\$2.50	\$3.00
Energy / kWh	Summer	6.160 ¢	5.889 ¢	8.129 ¢	8.978 ¢
	Winter	3.910 ¢	3.934 ¢	5.535 ¢	6.677 ¢

Energy-Controlled Non-Demand (E10)		Base Rates		Rates + Fuel	
Customer / Mo.		\$2.50	\$3.00	\$2.50	\$3.00
Energy / kWh	Standard Resid.	3.530 ¢	3.400 ¢	5.280 ¢	6.269 ¢
	Standard Comm.	3.530 ¢	3.400 ¢	5.280 ¢	6.336 ¢
	Optional Resid. - Summer	7.250 ¢	7.434 ¢	9.219 ¢	10.523 ¢
	Optional Comm.- Summer	6.830 ¢	6.890 ¢	8.799 ¢	10.052 ¢

**COMPARISON OF PRESENT & PROPOSED RATES**

		Present	Proposed	Present	Proposed
<b>Limited Off-Peak (E11)</b>		Base Rates		Rates + Fuel	
<b>Customer / Mo.</b>	Residential	\$2.70	\$3.00	\$2.70	\$3.00
	Commercial Sec - 1 Phase	\$2.70	\$3.00	\$2.70	\$3.00
	Commercial Sec - 3 Phase	\$4.05	\$5.00	\$4.05	\$5.00
<b>Energy / kWh</b>	Commercial Primary	\$24.00	\$25.00	\$24.00	\$25.00
	Residential On-Peak	20.000 ¢	20.000 ¢	21.750 ¢	22.869 ¢
	Commercial On-Peak	20.000 ¢	20.000 ¢	21.750 ¢	22.936 ¢
	Residential Secondary	2.700 ¢	1.800 ¢	4.450 ¢	4.669 ¢
	Commercial Secondary	2.700 ¢	1.800 ¢	4.450 ¢	4.736 ¢

		Present	Proposed	Present	Proposed
<b>Small General (E13)</b>		Base Rates		Rates + Fuel	
<b>Customer / Mo.</b>		\$7.25	\$8.20	\$7.25	\$8.20
<b>Energy / kWh</b>	Summer	6.830 ¢	6.890 ¢	8.799 ¢	10.052 ¢
	Winter	5.830 ¢	5.689 ¢	7.455 ¢	8.496 ¢

		Present	Proposed	Present	Proposed
<b>Small General TOD (E14, E18)</b>		Base Rates		Rates + Fuel	
<b>Customer / Mo.</b>		\$9.25	\$10.20	\$9.25	\$10.20
<b>Energy / kWh</b>	On-Peak Summer	10.660 ¢	12.753 ¢	12.629 ¢	15.915 ¢
	On-Peak Winter	8.680 ¢	10.155 ¢	10.305 ¢	12.962 ¢
	Off-Peak Summer	2.920 ¢	1.850 ¢	4.889 ¢	5.012 ¢
	Off-Peak Winter	2.920 ¢	1.850 ¢	4.545 ¢	4.657 ¢
	Constant Use - Summer	5.630 ¢	5.666 ¢	7.599 ¢	8.828 ¢
	Constant Use - Winter	4.940 ¢	4.757 ¢	6.565 ¢	7.564 ¢

		Present	Proposed	Present	Proposed
<b>Demand-Metered Voltage Discounts</b>		Base Rates		Rates + Fuel	
<b>Voltage Discount / kWh</b>	Primary	0.060 ¢	0.090 ¢	0.060 ¢	0.090 ¢
	Trans. Transf.	0.090 ¢	0.140 ¢	0.090 ¢	0.140 ¢
	Transmission	0.120 ¢	0.200 ¢	0.120 ¢	0.200 ¢
<b>Voltage Discount / kW</b>	Primary	\$0.80	\$0.80	\$0.80	\$0.80
	Trans. Transf.	\$1.50	\$1.50	\$1.50	\$1.50
	Transmission	\$2.05	\$2.00	\$2.05	\$2.00

		Present	Proposed	Present	Proposed
<b>General (E15)</b>		Base Rates		Rates + Fuel	
<b>Customer / Mo.</b>		\$15.25	\$18.00	\$15.25	\$18.00
<b>Demand / kW</b>	Summer	\$9.35	\$10.42	\$9.35	\$10.42
	Winter	\$6.74	\$7.42	\$6.74	\$7.42
<b>Energy / kWh</b>		3.090 ¢	2.540 ¢	4.840 ¢	5.412 ¢
<b>Energy Credit / kWh</b>		-0.550 ¢	-0.650 ¢	-0.550 ¢	-0.650 ¢

**COMPARISON OF PRESENT & PROPOSED RATES**

		Present	Proposed	Present	Proposed
<b>General Time of Day (E16)</b>		Base Rates		Rates + Fuel	
<b>Customer / Mo.</b>		\$18.25	\$21.00	\$18.25	\$21.00
<b>On-Peak Demand / kW</b>	Summer	\$9.35	\$10.42	\$9.35	\$10.42
	Winter	\$6.74	\$7.42	\$6.74	\$7.42
<b>Off-Peak Demand / kW</b>		\$2.05	\$2.00	\$2.05	\$2.00
<b>Energy / kWh</b>	On-Peak	3.560 ¢	3.230 ¢	5.310 ¢	6.969 ¢
	Off-Peak	2.670 ¢	2.019 ¢	4.420 ¢	4.153 ¢
<b>Energy Credit / kWh</b>		-0.550 ¢	-0.650 ¢	-0.550 ¢	-0.650 ¢

		Present	Proposed	Present	Proposed
<b>Peak-Controlled (E20)</b>		Base Rates		Rates + Fuel	
<b>Customer / Mo.</b>		\$40.25	\$45.00	\$40.25	\$45.00
<b>Firm Demand / kW</b>	Summer	\$9.35	\$10.42	\$9.35	\$10.42
	Winter	\$6.74	\$7.42	\$6.74	\$7.42
<b>Control Demand / kW</b>	Option A	\$4.49	\$5.30	\$4.49	\$5.30
	Option B - Summer (Closed)	\$6.10	n/a	\$6.10	n/a
	Option B - Winter (Closed)	\$3.99	n/a	\$3.99	n/a
<b>Energy / kWh</b>		3.090 ¢	2.540 ¢	4.840 ¢	5.412 ¢
<b>Energy Credit / kWh</b>		-0.550 ¢	-0.650 ¢	-0.550 ¢	-0.650 ¢

		Present	Proposed	Present	Proposed
<b>Peak-Controlled TOD (E21)</b>		Base Rates		Rates + Fuel	
<b>Customer / Mo.</b>		\$43.25	\$45.00	\$43.25	\$45.00
<b>On-Peak Demand / kW</b>	Summer	\$9.35	\$10.42	\$9.35	\$10.42
	Winter	\$6.74	\$7.42	\$6.74	\$7.42
<b>Control Demand / kW</b>	Option A	\$4.49	\$5.30	\$4.49	\$5.30
	Option B - Summer (Closed)	\$6.10	n/a	\$6.10	n/a
	Option B - Winter (Closed)	\$3.99	n/a	\$3.99	n/a
<b>Off-Peak Demand / kW</b>		\$2.05	\$2.00	\$2.05	\$2.00
<b>Energy / kWh</b>	On-Peak	3.560 ¢	3.230 ¢	5.310 ¢	6.969 ¢
	Off-Peak	2.670 ¢	2.019 ¢	4.420 ¢	4.153 ¢
<b>Energy Credit / kWh</b>		-0.5500 ¢	-0.6500 ¢	-0.5500 ¢	-0.6500 ¢

		Present	Proposed	Present	Proposed
<b>Energy-Controlled Service (E22)</b>		Base Rates		Rates + Fuel	
<b>Customer / Mo.</b>		\$43.25	\$45.00	\$43.25	\$45.00
<b>On-Peak Demand / kW</b>	Summer	\$9.35	\$10.42	\$9.35	\$10.42
	Winter	\$6.74	\$7.42	\$6.74	\$7.42
<b>Control Demand / kW</b>		\$4.28	\$5.09	\$4.28	\$5.09
<b>Off-Peak Demand / kW</b>		\$2.05	\$2.00	\$2.05	\$2.00
<b>Energy / kWh</b>	Firm On-Peak	3.560 ¢	3.230 ¢	5.310 ¢	6.969 ¢
	Firm Off-Peak	2.670 ¢	2.019 ¢	4.420 ¢	4.153 ¢
	Controllable On-Peak	3.100 ¢	2.830 ¢	4.850 ¢	6.569 ¢
	Controllable Off-Peak	2.460 ¢	1.839 ¢	4.210 ¢	3.973 ¢
	Control Period Energy	10.000 ¢	8.000 ¢	11.750 ¢	11.739 ¢
<b>Energy Credit / kWh</b>		-0.550 ¢	-0.650 ¢	-0.550 ¢	-0.650 ¢

**COMPARISON OF PRESENT & PROPOSED RATES**

		Present	Proposed	Present	Proposed
<b>Automatic Protective Lighting (E12)</b>		Base Rates		Rates + Fuel	
<b>Area</b>	100 W HPSodium	\$6.50	\$6.70	\$7.21	\$7.64
	175 W Mercury	\$6.50	\$6.36	\$7.73	\$7.99
	250 W HPSodium	\$12.25	\$12.49	\$14.11	\$14.96
	400 W Mercury	\$12.25	\$11.87	\$15.04	\$15.57
<b>Directional</b>	250 W HPSodium	\$13.70	\$14.02	\$15.56	\$16.49
	400 W Mercury	\$13.70	\$13.78	\$16.49	\$17.48
	400 W HPSodium	\$18.00	\$18.30	\$20.92	\$22.18
	1000 W Mercury	\$31.50			

<b>St. Lighting System (E30)</b>		Base Rates		Rates + Fuel	
<b>Overhead</b>	100 W HPSodium	\$9.90	\$11.55	\$10.61	\$12.49
	150 W HPSodium	\$11.45	\$13.22	\$12.49	\$14.60
	250 W HPSodium	\$14.80	\$17.00	\$16.66	\$19.47
	400 W HPSodium	\$18.30	\$20.89	\$21.22	\$24.77
<b>Underground</b>	100 W HPSodium	\$15.60	\$18.43	\$16.31	\$19.37
	150 W HPSodium	\$17.30	\$20.25	\$18.34	\$21.63
	250 W HPSodium	\$20.95	\$24.33	\$22.81	\$26.80
<b>Decorative UG</b>	100 W HPSodium	\$18.85	\$23.50	\$19.56	\$24.44
	150 W HPSodium	\$19.95	\$24.72	\$20.99	\$26.10
	250 W HPSodium	\$26.10	\$31.18	\$27.96	\$33.65

<b>St. Lighting Energy (E31)</b>		Base Rates		Rates + Fuel	
<b>Group 1</b>	70 W HPSodium	\$3.40	\$3.62	\$3.89	\$4.27
	100 W HPSodium	\$3.80	\$4.11	\$4.51	\$5.05
	150 W HPSodium	\$4.60	\$4.98	\$5.64	\$6.36
	250 W HPSodium	\$6.60	\$7.19	\$8.46	\$9.66
	400 W HPSodium	\$9.30	\$10.12	\$12.22	\$14.00
	1000 W HPSodium	\$20.00	\$21.55	\$26.86	\$30.65
	175 W Mercury	\$4.25	\$4.87	\$5.48	\$6.50
	400 W Mercury	\$8.20	\$9.17	\$10.99	\$12.87
<b>Group 4</b>	70 W HPSodium	\$1.45	\$1.61	\$1.94	\$2.26
	100 W HPSodium	\$1.80	\$2.06	\$2.51	\$3.00
	150 W HPSodium	\$2.80	\$3.09	\$3.84	\$4.47
	250 W HPSodium	\$4.80	\$5.30	\$6.66	\$7.77
	400 W HPSodium	\$7.40	\$8.16	\$10.32	\$12.04
	175 W Mercury	\$3.25	\$3.60	\$4.48	\$5.23
<b>Group 4 Metered</b>	Energy Charge per kWh	4.880 ¢	5.220 ¢	6.630 ¢	7.542 ¢

<b>St. Lighting Energy - Metered (E34)</b>		Base Rates		Rates + Fuel	
<b>Customer / Mo.</b>		\$7.25	\$8.20	\$7.25	\$8.20
<b>Energy Charge per kWh</b>		4.630 ¢	4.970 ¢	6.380 ¢	7.292 ¢

**COMPARISON OF PRESENT & PROPOSED RATES**

	<b>Present</b>	<b>Proposed</b>
<b>Fire &amp; Civil Defense Siren (E40)</b>		
<b>HP Capacity / Mo.</b>	\$0.52	\$0.57
<b>Min Charge / Mo.</b>	\$2.55	\$2.81

<b>Standby Service Rider</b>			
<b>Customer / Mo.</b>	Unscheduled Maintenance	\$25.00	\$25.00
	Scheduled Maintenance	\$25.00	\$25.00
<b>Demand / Contract kW</b>	Unscheduled-Secondary	\$2.85	\$2.90
	Unscheduled-Primary	\$2.05	\$2.10
	Unscheduled-Trans. Transf.	\$1.35	\$1.40
	Unscheduled-Transmission	\$0.80	\$0.90
	Scheduled-Secondary	\$2.75	\$2.80
	Scheduled-Primary	\$1.95	\$2.00
	Scheduled-Trans. Transf.	\$1.25	\$1.30
	Scheduled-Transmission	\$0.70	\$0.80



**COMPARISON OF BILLS AT PRESENT & PROPOSED RATES**

**RESIDENTIAL SERVICE (OVERHEAD) - E01**

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$26.26	\$29.94	\$3.68	14.01%
	300	\$30.21	\$34.43	\$4.22	13.99%
	400	\$38.09	\$43.41	\$5.32	13.96%
	500	\$45.98	\$52.38	\$6.41	13.94%
	600	\$53.86	\$61.36	\$7.50	13.92%
	675	\$59.77	\$68.09	\$8.32	13.92%
	750	\$65.69	\$74.82	\$9.14	13.91%
	1000	\$85.40	\$97.27	\$11.87	13.89%
	1500	\$122.28	\$142.15	\$19.87	16.25%
	2000	\$159.15	\$187.03	\$27.88	17.52%
	3000	\$232.90	\$276.80	\$43.90	18.85%
	4000	\$306.65	\$366.57	\$59.91	19.54%
5000	\$380.41	\$456.33	\$75.93	19.96%	
SUMMER	250	\$29.60	\$33.81	\$4.21	14.23%
	300	\$34.21	\$39.07	\$4.86	14.22%
	400	\$43.42	\$49.59	\$6.17	14.21%
	500	\$52.64	\$60.12	\$7.47	14.20%
	600	\$61.86	\$70.64	\$8.78	14.19%
	675	\$68.78	\$78.53	\$9.76	14.19%
	750	\$75.69	\$86.43	\$10.74	14.18%
	1000	\$98.74	\$112.73	\$14.00	14.18%
	1500	\$144.83	\$165.35	\$20.52	14.17%
	2000	\$190.92	\$217.97	\$27.05	14.17%
	3000	\$283.11	\$323.20	\$40.09	14.16%
	4000	\$375.30	\$428.44	\$53.14	14.16%
5000	\$467.49	\$533.67	\$66.19	14.16%	
AVERAGE MONTHLY	250	\$27.37	\$31.23	\$3.86	14.09%
	300	\$31.54	\$35.98	\$4.44	14.07%
	400	\$39.87	\$45.47	\$5.60	14.05%
	500	\$48.20	\$54.96	\$6.76	14.03%
	600	\$56.53	\$64.45	\$7.93	14.02%
	675	\$62.78	\$71.57	\$8.80	14.01%
	750	\$69.02	\$78.69	\$9.67	14.01%
	1000	\$89.85	\$102.42	\$12.58	14.00%
	1500	\$129.79	\$149.88	\$20.09	15.48%
	2000	\$169.74	\$197.35	\$27.60	16.26%
	3000	\$249.64	\$292.27	\$42.63	17.08%
	4000	\$329.54	\$387.19	\$57.65	17.50%
5000	\$409.43	\$482.11	\$72.68	17.75%	

**COMPARISON OF BILLS AT PRESENT & PROPOSED RATES**

**RESIDENTIAL SERVICE - SPACE HEATING (OVERHEAD) - E01**

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$26.26	\$29.94	\$3.68	14.01%
	300	\$30.21	\$33.83	\$3.62	12.00%
	400	\$38.09	\$41.61	\$3.52	9.23%
	500	\$45.98	\$49.38	\$3.41	7.41%
	600	\$53.86	\$57.16	\$3.30	6.13%
	675	\$59.77	\$62.99	\$3.22	5.38%
	750	\$65.69	\$68.82	\$3.14	4.77%
	1000	\$85.40	\$88.27	\$2.87	3.36%
	1500	\$114.93	\$127.15	\$12.22	10.64%
	2000	\$144.45	\$166.03	\$21.58	14.94%
	3000	\$203.50	\$243.80	\$40.30	19.80%
4000	\$262.55	\$321.57	\$59.01	22.48%	
5000	\$321.61	\$399.33	\$77.73	24.17%	
SUMMER	250	\$29.60	\$36.81	\$7.21	24.37%
	300	\$34.21	\$42.07	\$7.86	22.99%
	400	\$43.42	\$52.59	\$9.17	21.11%
	500	\$52.64	\$63.12	\$10.47	19.90%
	600	\$61.86	\$73.64	\$11.78	19.04%
	675	\$68.78	\$81.53	\$12.76	18.55%
	750	\$75.69	\$89.43	\$13.74	18.15%
	1000	\$98.74	\$115.73	\$17.00	17.22%
	1500	\$144.83	\$168.35	\$23.52	16.24%
	2000	\$190.92	\$220.97	\$30.05	15.74%
	3000	\$283.11	\$326.20	\$43.09	15.22%
4000	\$375.30	\$431.44	\$56.14	14.96%	
5000	\$467.49	\$536.67	\$69.19	14.80%	
AVERAGE MONTHLY	250	\$27.37	\$32.23	\$4.86	17.74%
	300	\$31.54	\$36.58	\$5.04	15.97%
	400	\$39.87	\$45.27	\$5.40	13.55%
	500	\$48.20	\$53.96	\$5.76	11.96%
	600	\$56.53	\$62.65	\$6.13	10.84%
	675	\$62.78	\$69.17	\$6.40	10.19%
	750	\$69.02	\$75.69	\$6.67	9.66%
	1000	\$89.85	\$97.42	\$7.58	8.43%
	1500	\$124.89	\$140.88	\$15.99	12.80%
	2000	\$159.94	\$184.35	\$24.40	15.26%
	3000	\$230.04	\$271.27	\$41.23	17.92%
4000	\$300.14	\$358.19	\$58.05	19.34%	
5000	\$370.23	\$445.11	\$74.88	20.23%	

**COMPARISON OF BILLS AT PRESENT & PROPOSED RATES**

**RESIDENTIAL SERVICE (UNDERGROUND) - E03**

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$28.26	\$31.94	\$3.68	13.02%
	300	\$32.21	\$36.43	\$4.22	13.12%
	400	\$40.09	\$45.41	\$5.32	13.26%
	500	\$47.98	\$54.38	\$6.41	13.36%
	600	\$55.86	\$63.36	\$7.50	13.42%
	675	\$61.77	\$70.09	\$8.32	13.46%
	750	\$67.69	\$76.82	\$9.14	13.50%
	1000	\$87.40	\$99.27	\$11.87	13.58%
	1500	\$124.28	\$144.15	\$19.87	15.99%
	2000	\$161.15	\$189.03	\$27.88	17.30%
	3000	\$234.90	\$278.80	\$43.90	18.69%
4000	\$308.65	\$368.57	\$59.91	19.41%	
5000	\$382.41	\$458.33	\$75.93	19.86%	
SUMMER	250	\$31.60	\$35.81	\$4.21	13.33%
	300	\$36.21	\$41.07	\$4.86	13.44%
	400	\$45.42	\$51.59	\$6.17	13.58%
	500	\$54.64	\$62.12	\$7.47	13.68%
	600	\$63.86	\$72.64	\$8.78	13.75%
	675	\$70.78	\$80.53	\$9.76	13.79%
	750	\$77.69	\$88.43	\$10.74	13.82%
	1000	\$100.74	\$114.73	\$14.00	13.90%
	1500	\$146.83	\$167.35	\$20.52	13.98%
	2000	\$192.92	\$219.97	\$27.05	14.02%
	3000	\$285.11	\$325.20	\$40.09	14.06%
4000	\$377.30	\$430.44	\$53.14	14.08%	
5000	\$469.49	\$535.67	\$66.19	14.10%	
AVERAGE MONTHLY	250	\$29.37	\$33.23	\$3.86	13.13%
	300	\$33.54	\$37.98	\$4.44	13.23%
	400	\$41.87	\$47.47	\$5.60	13.38%
	500	\$50.20	\$56.96	\$6.76	13.47%
	600	\$58.53	\$66.45	\$7.93	13.54%
	675	\$64.78	\$73.57	\$8.80	13.58%
	750	\$71.02	\$80.69	\$9.67	13.61%
	1000	\$91.85	\$104.42	\$12.58	13.69%
	1500	\$131.79	\$151.88	\$20.09	15.24%
	2000	\$171.74	\$199.35	\$27.60	16.07%
	3000	\$251.64	\$294.27	\$42.63	16.94%
4000	\$331.54	\$389.19	\$57.65	17.39%	
5000	\$411.43	\$484.11	\$72.68	17.67%	

**COMPARISON OF BILLS AT PRESENT & PROPOSED RATES**

**RESIDENTIAL SERVICE - SPACE HEATING (UNDERGROUND) - E03**

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$28.26	\$31.94	\$3.68	13.02%
	300	\$32.21	\$35.83	\$3.62	11.25%
	400	\$40.09	\$43.61	\$3.52	8.77%
	500	\$47.98	\$51.38	\$3.41	7.10%
	600	\$55.86	\$59.16	\$3.30	5.91%
	675	\$61.77	\$64.99	\$3.22	5.21%
	750	\$67.69	\$70.82	\$3.14	4.63%
	1000	\$87.40	\$90.27	\$2.87	3.28%
	1500	\$116.93	\$129.15	\$12.22	10.45%
	2000	\$146.45	\$168.03	\$21.58	14.74%
	3000	\$205.50	\$245.80	\$40.30	19.61%
	4000	\$264.55	\$323.57	\$59.01	22.31%
5000	\$323.61	\$401.33	\$77.73	24.02%	
SUMMER	250	\$31.60	\$38.81	\$7.21	22.82%
	300	\$36.21	\$44.07	\$7.86	21.72%
	400	\$45.42	\$54.59	\$9.17	20.19%
	500	\$54.64	\$65.12	\$10.47	19.17%
	600	\$63.86	\$75.64	\$11.78	18.44%
	675	\$70.78	\$83.53	\$12.76	18.02%
	750	\$77.69	\$91.43	\$13.74	17.68%
	1000	\$100.74	\$117.73	\$17.00	16.87%
	1500	\$146.83	\$170.35	\$23.52	16.02%
	2000	\$192.92	\$222.97	\$30.05	15.57%
	3000	\$285.11	\$328.20	\$43.09	15.11%
	4000	\$377.30	\$433.44	\$56.14	14.88%
5000	\$469.49	\$538.67	\$69.19	14.74%	
AVERAGE MONTHLY	250	\$29.37	\$34.23	\$4.86	16.53%
	300	\$33.54	\$38.58	\$5.04	15.02%
	400	\$41.87	\$47.27	\$5.40	12.90%
	500	\$50.20	\$55.96	\$5.76	11.48%
	600	\$58.53	\$64.65	\$6.13	10.47%
	675	\$64.78	\$71.17	\$6.40	9.88%
	750	\$71.02	\$77.69	\$6.67	9.39%
	1000	\$91.85	\$99.42	\$7.58	8.25%
	1500	\$126.89	\$142.88	\$15.99	12.60%
	2000	\$161.94	\$186.35	\$24.40	15.07%
	3000	\$232.04	\$273.27	\$41.23	17.77%
	4000	\$302.14	\$360.19	\$58.05	19.21%
5000	\$372.23	\$447.11	\$74.88	20.12%	

**COMPARISON OF BILLS AT PRESENT & PROPOSED RATES**

**SMALL GENERAL SERVICE - E13**

	Energy in kWh	Monthly Bill		Increase	
		Present	Proposed	Amount	Percent
WINTER	250	\$25.89	\$29.44	\$3.55	13.72%
	300	\$29.62	\$33.69	\$4.07	13.76%
	400	\$37.07	\$42.19	\$5.11	13.80%
	500	\$44.53	\$50.68	\$6.16	13.83%
	600	\$51.98	\$59.18	\$7.20	13.85%
	750	\$63.16	\$71.92	\$8.76	13.87%
	1000	\$81.80	\$93.16	\$11.36	13.89%
	1500	\$119.08	\$135.64	\$16.57	13.91%
	2000	\$156.35	\$178.13	\$21.77	13.93%
	3000	\$230.90	\$263.09	\$32.19	13.94%
	4000	\$305.45	\$348.05	\$42.60	13.95%
5000	\$380.01	\$433.02	\$53.01	13.95%	
SUMMER	250	\$29.25	\$33.33	\$4.08	13.96%
	300	\$33.65	\$38.36	\$4.71	14.00%
	400	\$42.44	\$48.41	\$5.96	14.05%
	500	\$51.24	\$58.46	\$7.22	14.09%
	600	\$60.04	\$68.51	\$8.47	14.11%
	750	\$73.24	\$83.59	\$10.35	14.13%
	1000	\$95.24	\$108.72	\$13.49	14.16%
	1500	\$139.23	\$158.98	\$19.75	14.19%
	2000	\$183.22	\$209.25	\$26.02	14.20%
	3000	\$271.21	\$309.77	\$38.56	14.22%
	4000	\$359.20	\$410.29	\$51.09	14.22%
5000	\$447.19	\$510.82	\$63.63	14.23%	
AVERAGE MONTHLY	250	\$27.01	\$30.74	\$3.73	13.81%
	300	\$30.96	\$35.24	\$4.29	13.84%
	400	\$38.86	\$44.26	\$5.40	13.89%
	500	\$46.76	\$53.27	\$6.51	13.92%
	600	\$54.67	\$62.29	\$7.62	13.94%
	750	\$66.52	\$75.81	\$9.29	13.97%
	1000	\$86.28	\$98.35	\$12.07	13.99%
	1500	\$125.79	\$143.42	\$17.63	14.02%
	2000	\$165.31	\$188.50	\$23.19	14.03%
	3000	\$244.34	\$278.65	\$34.31	14.04%
	4000	\$323.37	\$368.80	\$45.43	14.05%
5000	\$402.40	\$458.95	\$56.55	14.05%	

**COMPARISON OF BILLS AT PRESENT & PROPOSED RATES**

**GENERAL SERVICE - E15 (Secondary Voltage)**

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$274.59	\$306.67	\$32.08	11.68%
15	6,000	400	\$416.49	\$465.15	\$48.66	11.68%
15	9,000	600	\$545.18	\$608.02	\$62.84	11.53%
25	5,000	200	\$447.49	\$499.12	\$51.63	11.54%
25	10,000	400	\$683.98	\$763.25	\$79.27	11.59%
25	15,000	600	\$898.47	\$1,001.37	\$102.90	11.45%
50	10,000	200	\$879.73	\$980.25	\$100.52	11.43%
50	20,000	400	\$1,352.71	\$1,508.50	\$155.79	11.52%
50	30,000	600	\$1,781.69	\$1,984.75	\$203.06	11.40%
75	15,000	200	\$1,311.97	\$1,461.37	\$149.40	11.39%
75	30,000	400	\$2,021.44	\$2,253.75	\$232.31	11.49%
75	45,000	600	\$2,664.91	\$2,968.12	\$303.21	11.38%
100	20,000	200	\$1,744.21	\$1,942.50	\$198.29	11.37%
100	40,000	400	\$2,690.17	\$2,999.00	\$308.83	11.48%
100	60,000	600	\$3,548.13	\$3,951.49	\$403.36	11.37%
200	40,000	200	\$3,473.17	\$3,867.00	\$393.83	11.34%
200	80,000	400	\$5,365.09	\$5,979.99	\$614.90	11.46%
200	120,000	600	\$7,081.01	\$7,884.99	\$803.98	11.35%
300	60,000	200	\$5,202.13	\$5,791.49	\$589.36	11.33%
300	120,000	400	\$8,040.01	\$8,960.99	\$920.98	11.45%
300	180,000	600	\$10,613.89	\$11,818.48	\$1,204.59	11.35%
500	100,000	200	\$8,660.05	\$9,640.49	\$980.44	11.32%
500	200,000	400	\$13,389.85	\$14,922.98	\$1,533.13	11.45%
500	300,000	600	\$17,679.65	\$19,685.47	\$2,005.82	11.35%
1,000	200,000	200	\$17,304.85	\$19,262.98	\$1,958.13	11.32%
1,000	400,000	400	\$26,764.45	\$29,827.97	\$3,063.52	11.45%
1,000	600,000	600	\$35,344.05	\$39,352.95	\$4,008.90	11.34%
3,000	600,000	200	\$51,884.05	\$57,752.95	\$5,868.90	11.31%
3,000	1,200,000	400	\$80,262.85	\$89,447.90	\$9,185.05	11.44%
3,000	1,800,000	600	\$106,001.65	\$118,022.85	\$12,021.20	11.34%
5,000	1,000,000	200	\$86,463.25	\$96,242.91	\$9,779.66	11.31%
5,000	2,000,000	400	\$133,761.25	\$149,067.83	\$15,306.58	11.44%
5,000	3,000,000	600	\$176,659.25	\$196,692.74	\$20,033.49	11.34%

**COMPARISON OF BILLS AT PRESENT & PROPOSED RATES**

**GENERAL SERVICE - E15 (Primary Voltage)**

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$260.79	\$291.97	\$31.18	11.96%
15	6,000	400	\$400.89	\$447.75	\$46.86	11.69%
15	9,000	600	\$527.78	\$587.92	\$60.14	11.40%
25	5,000	200	\$424.49	\$474.62	\$50.13	11.81%
25	10,000	400	\$657.98	\$734.25	\$76.27	11.59%
25	15,000	600	\$869.47	\$967.87	\$98.40	11.32%
50	10,000	200	\$833.73	\$931.25	\$97.52	11.70%
50	20,000	400	\$1,300.71	\$1,450.50	\$149.79	11.52%
50	30,000	600	\$1,723.69	\$1,917.75	\$194.06	11.26%
75	15,000	200	\$1,242.97	\$1,387.87	\$144.90	11.66%
75	30,000	400	\$1,943.44	\$2,166.75	\$223.31	11.49%
75	45,000	600	\$2,577.91	\$2,867.62	\$289.71	11.24%
100	20,000	200	\$1,652.21	\$1,844.50	\$192.29	11.64%
100	40,000	400	\$2,586.17	\$2,883.00	\$296.83	11.48%
100	60,000	600	\$3,432.13	\$3,817.49	\$385.36	11.23%
200	40,000	200	\$3,289.17	\$3,671.00	\$381.83	11.61%
200	80,000	400	\$5,157.09	\$5,747.99	\$590.90	11.46%
200	120,000	600	\$6,849.01	\$7,616.99	\$767.98	11.21%
300	60,000	200	\$4,926.13	\$5,497.49	\$571.36	11.60%
300	120,000	400	\$7,728.01	\$8,612.99	\$884.98	11.45%
300	180,000	600	\$10,265.89	\$11,416.48	\$1,150.59	11.21%
500	100,000	200	\$8,200.05	\$9,150.49	\$950.44	11.59%
500	200,000	400	\$12,869.85	\$14,342.98	\$1,473.13	11.45%
500	300,000	600	\$17,099.65	\$19,015.47	\$1,915.82	11.20%
1,000	200,000	200	\$16,384.85	\$18,282.98	\$1,898.13	11.58%
1,000	400,000	400	\$25,724.45	\$28,667.97	\$2,943.52	11.44%
1,000	600,000	600	\$34,184.05	\$38,012.95	\$3,828.90	11.20%
3,000	600,000	200	\$49,124.05	\$54,812.95	\$5,688.90	11.58%
3,000	1,200,000	400	\$77,142.85	\$85,967.90	\$8,825.05	11.44%
3,000	1,800,000	600	\$102,521.65	\$114,002.85	\$11,481.20	11.20%
5,000	1,000,000	200	\$81,863.25	\$91,342.91	\$9,479.66	11.58%
5,000	2,000,000	400	\$128,561.25	\$143,267.83	\$14,706.58	11.44%
5,000	3,000,000	600	\$170,859.25	\$189,992.74	\$19,133.49	11.20%

**COMPARISON OF BILLS AT PRESENT & PROPOSED RATES**

**GENERAL TOD SERVICE -E16 (Secondary Voltage)**

Ave On-Peak 43.04%

Demand in kW	Energy in kWh	Hours	Monthly Bill		Increase	
			Present	Proposed	Amount	Percent
15	3,000	200	\$276.49	\$308.26	\$31.77	11.49%
15	6,000	400	\$417.27	\$465.31	\$48.04	11.51%
15	9,000	600	\$544.86	\$606.77	\$61.91	11.36%
25	5,000	200	\$448.64	\$499.76	\$51.12	11.39%
25	10,000	400	\$683.29	\$761.52	\$78.24	11.45%
25	15,000	600	\$895.93	\$997.28	\$101.35	11.31%
50	10,000	200	\$879.04	\$978.52	\$99.49	11.32%
50	20,000	400	\$1,348.32	\$1,502.04	\$153.72	11.40%
50	30,000	600	\$1,773.61	\$1,973.57	\$199.96	11.27%
75	15,000	200	\$1,309.43	\$1,457.28	\$147.85	11.29%
75	30,000	400	\$2,013.36	\$2,242.57	\$229.21	11.38%
75	45,000	600	\$2,651.29	\$2,949.85	\$298.56	11.26%
100	20,000	200	\$1,739.82	\$1,936.04	\$196.22	11.28%
100	40,000	400	\$2,678.39	\$2,983.09	\$304.70	11.38%
100	60,000	600	\$3,528.96	\$3,926.13	\$397.17	11.25%
200	40,000	200	\$3,461.39	\$3,851.09	\$389.70	11.26%
200	80,000	400	\$5,338.53	\$5,945.18	\$606.64	11.36%
200	120,000	600	\$7,039.68	\$7,831.26	\$791.59	11.24%
300	60,000	200	\$5,182.96	\$5,766.13	\$583.17	11.25%
300	120,000	400	\$7,998.68	\$8,907.26	\$908.59	11.36%
300	180,000	600	\$10,550.39	\$11,736.39	\$1,186.00	11.24%
500	100,000	200	\$8,626.11	\$9,596.22	\$970.11	11.25%
500	200,000	400	\$13,318.96	\$14,831.44	\$1,512.48	11.36%
500	300,000	600	\$17,571.82	\$19,546.66	\$1,974.84	11.24%
1,000	200,000	200	\$17,233.96	\$19,171.44	\$1,937.48	11.24%
1,000	400,000	400	\$26,619.67	\$29,641.88	\$3,022.20	11.35%
1,000	600,000	600	\$35,125.39	\$39,072.31	\$3,946.93	11.24%
3,000	600,000	200	\$51,665.39	\$57,472.31	\$5,806.93	11.24%
3,000	1,200,000	400	\$79,822.52	\$88,883.63	\$9,061.11	11.35%
3,000	1,800,000	600	\$105,339.66	\$117,174.94	\$11,835.29	11.24%
5,000	1,000,000	200	\$86,096.81	\$95,773.19	\$9,676.38	11.24%
5,000	2,000,000	400	\$133,025.37	\$148,125.38	\$15,100.01	11.35%
5,000	3,000,000	600	\$175,553.93	\$195,277.57	\$19,723.64	11.24%



Northern States Power Company, a Minnesota corporation  
 Electric Utility - South Dakota  
 Test Year Ending December 31, 2008

Docket No. EL09-\_\_\_\_  
 Exhibit No. \_\_\_\_\_(SVH-1), Schedule 6  
 Page 1 of 1

**FUEL COST RIDER - FUEL ADJUSTMENT FACTOR CALCULATION**

		SERVICE CATEGORY					
		Residential	C&I Non-Dmd	C&I Demand	Outdoor Lighting	RETAIL	
<b>STEP 1: CLASS RATIOS</b>							
1.	Test-Year Marginal Energy Cost *	\$41,883,288	\$6,535,470	\$75,535,530	\$682,773	\$124,637,061	
2.	Test-Year MWh Energy (at Generator)	669,772	102,106	1,226,471	13,487	2,011,836	
3.	Average Load-Weighted Marginal Energy Cost Per MWh (1)/(2)	\$62.534	\$64.007	\$61.588	\$50.623	\$61.952	
4.	<b>Class Ratio (Class Unit Cost / Retail Unit Cost)</b>	<b>1.0094</b>	<b>1.0332</b>	<b>0.9941</b>	<b>0.8171</b>	<b>1.0000</b>	
<b>STEP 2: C&amp;I DEMAND TOD RATIOS</b>							
				<b>Non-TOD</b>	<b>On-Peak</b>	<b>Off-Peak</b>	
5.	Ratio of On- to Off-Peak TY Wtd Marginal Energy Costs				1.752		
6.	C&I Demand Class On/Off-Peak Percentage from 8760 loads				0.4304	0.5696	
7.	C&I Demand TOD On-Peak Ratio = 1 / (0.4304 + (0.5696 / 1.752)) **				<b>1.3236</b>		
8.	C&I Demand TOD Off-Peak Ratio = 1 / ((1.7520 x 0.4304) + 0.5696) **					<b>0.7555</b>	
9.	C&I Non-TOD On-Peak Weighting			0.4600			
10.	C&I Non-TOD Off-Peak Weighting			0.5400			
11.	C&I Demand Non-TOD Ratio = (0.46000 x 1.3236) + (0.54000 x 0.7555)			<b>1.0168</b>			
<b>STEP 3: FUEL ADJUSTMENT FACTOR</b>							
12.	FAF = Step 1, or for C&I-Demand, Step 1 x Step 2	<b>1.0094</b>	<b>1.0332</b>	<b>1.0108</b>	<b>1.3158</b>	<b>0.7510</b>	<b>0.8171</b>

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

\*\* TOD Ratio Equations is derived from the following:

Weighted Average = (0.4304 x on-peak charge) + (0.5696 x off-peak charge), where 0.4304 and 0.5696 are C&I Demand class on-peak % and off-peak % respectively

**KWH**

100 kWh Block Sales	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
MN Residential	117,347	105,515	96,653	99,313	89,252	91,759	112,997	109,135	106,820	99,306	82,148	109,014	1,219,260
MN Com & Ind	42,673	24,004	35,011	39,394	36,778	35,560	54,007	46,427	67,145	49,262	42,648	43,452	516,361
MN Total Blocks	160,020	129,518	131,664	138,708	126,030	127,319	167,004	155,562	173,965	148,568	124,796	152,466	1,735,621
SD Residential	0	0	0	78	156	234	312	390	467	545	623	701	3,506
SD Com & Ind	0	0	0	39	78	117	156	195	234	273	312	351	1,753
SD Total Blocks	0	0	0	117	234	351	467	584	701	818	935	1,052	5,259
Grand Total Blocks	160,020	129,518	131,664	138,825	126,264	127,670	167,472	156,147	174,666	149,386	125,731	153,517	1,740,880
YTD Wind kWh Sold	16,002,033	28,953,861	42,120,265	56,002,721	68,629,129	81,396,123	98,143,294	113,757,959	131,224,564	146,163,135	158,736,277	174,088,013	
<b>Program Generation</b>													
Invoiced Wind kWh Generated	17,620,466	13,331,195	16,071,077	17,610,469	17,566,143	11,149,572	9,333,570	8,437,974	13,158,652	16,595,502	17,971,315	15,242,079	174,088,013
REC kWh (1 REC = 1000 kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Wind kWh Generated	17,620,466	13,331,195	16,071,077	17,610,469	17,566,143	11,149,572	9,333,570	8,437,974	13,158,652	16,595,502	17,971,315	15,242,079	174,088,013
YTD Wind kWh Generated	17,620,466	30,951,662	47,022,738	64,633,208	82,199,350	93,348,922	102,682,492	111,120,466	124,279,118	140,874,620	158,845,935	174,088,013	
Monthly kWh (Over)/Under	1,618,433	379,367	2,904,673	3,728,014	4,939,734	-1,617,422	-7,413,601	-7,176,691	-4,307,953	1,656,931	5,398,173	-109,657	
YTD kWh (Over)/Under	1,618,433	1,997,800	4,902,473	8,630,487	13,570,221	11,952,799	4,539,199	-2,637,493	-6,945,446	-5,288,515	109,657	0	
Monthly Generation Capacity Factor	26.7%	40.1%	36.7%	40.8%	34.9%	25.9%	21.0%	18.9%	30.5%	37.3%	41.7%	34.2%	32.3%
YTD Generation Capacity Factor	26.7%	33.8%	34.8%	36.3%	36.0%	34.3%	32.4%	30.6%	30.6%	31.3%	32.2%	32.4%	

**Dollars**

Program Sales Revenue	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
MN Residential	\$422,378	\$379,788	\$347,891	\$357,467	\$321,253	\$330,277	\$406,720	\$392,818	\$384,485	\$357,440	\$295,682	\$392,382	\$4,388,581
MN Com & Ind	\$153,596	\$86,398	\$126,018	\$141,795	\$132,378	\$127,994	\$194,392	\$167,110	\$241,680	\$177,311	\$153,508	\$156,400	\$1,858,580
MN Total Revenue	\$575,974	\$466,186	\$473,909	\$499,262	\$453,631	\$458,271	\$601,112	\$559,928	\$626,166	\$534,751	\$449,190	\$548,781	\$6,247,160
SD Residential	\$0	\$0	\$0	\$280	\$561	\$841	\$1,122	\$1,402	\$1,683	\$1,963	\$2,243	\$2,524	\$12,619
SD Com & Ind	\$0	\$0	\$0	\$140	\$280	\$421	\$561	\$701	\$841	\$982	\$1,122	\$1,262	\$6,310
SD Total Revenue	\$0	\$0	\$0	\$421	\$841	\$1,262	\$1,683	\$2,103	\$2,524	\$2,945	\$3,365	\$3,786	\$18,929
<b>Grand Total Revenue</b>	<b>\$575,974</b>	<b>\$466,186</b>	<b>\$473,909</b>	<b>\$499,682</b>	<b>\$454,472</b>	<b>\$459,533</b>	<b>\$602,794</b>	<b>\$562,031</b>	<b>\$628,689</b>	<b>\$537,696</b>	<b>\$452,555</b>	<b>\$552,567</b>	<b>\$6,266,089</b>
<b>Program Gen. Expense</b>													
Wind Contracts Payments	\$768,226	\$581,220	\$700,675	\$767,790	\$765,858	\$486,105	\$406,930	\$367,883	\$573,698	\$723,539	\$783,523	\$664,532	\$7,589,980
REC MWh Purchase, @ \$3.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
System Fuel Costs per kWh *	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0
REC-Related Fuel Costs *	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Windsources Energy Costs	\$768,226	\$581,220	\$700,675	\$767,790	\$765,858	\$486,105	\$406,930	\$367,883	\$573,698	\$723,539	\$783,523	\$664,532	\$7,589,980
*Traditional "brown" generation costs made "green" by the application of RECs													
Admin. Labor	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$108,000
Marketing Expense	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$12,000
Admin. Other	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$24,000
Total Admin & Mktg	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$144,000
Gen Capacity Credit @ -\$0.00845	-\$148,893	-\$112,649	-\$135,801	-\$148,808	-\$148,434	-\$94,214	-\$78,869	-\$71,301	-\$111,191	-\$140,232	-\$151,858	-\$128,796	-\$1,471,044
<b>Total Expense</b>	<b>\$631,333</b>	<b>\$480,572</b>	<b>\$576,875</b>	<b>\$630,982</b>	<b>\$629,424</b>	<b>\$403,891</b>	<b>\$340,061</b>	<b>\$308,582</b>	<b>\$474,507</b>	<b>\$595,307</b>	<b>\$643,665</b>	<b>\$547,737</b>	<b>\$6,262,936</b>
<b>Monthly Over/(Under) Recocery</b>	<b>-\$55,359</b>	<b>-\$14,386</b>	<b>-\$102,966</b>	<b>-\$131,300</b>	<b>-\$174,951</b>	<b>\$55,642</b>	<b>\$262,733</b>	<b>\$253,449</b>	<b>\$154,182</b>	<b>-\$57,611</b>	<b>-\$191,110</b>	<b>\$4,831</b>	<b>\$3,153</b>
<b>Interest Calculation</b>													
Beginning Balance	\$0	-\$55,435	-\$69,978	-\$173,278	-\$305,216	-\$481,251	-\$426,821	-\$164,904	\$88,440	\$243,065	\$186,044	-\$4,824	
Ending Bal (Begin+Over/Under)	-\$55,359	-\$69,822	-\$172,943	-\$304,578	-\$480,167	-\$425,610	-\$164,088	\$88,545	\$242,623	\$185,453	-\$5,066	\$7	
Average Balance	-\$27,680	-\$62,628	-\$121,460	-\$238,928	-\$392,692	-\$453,431	-\$295,454	-\$38,179	\$165,531	\$214,259	\$90,489	-\$2,408	
Prime Rate	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
Days In Month	31	28	31	30	31	30	31	31	30	30	30	31	365
<b>Monthly Interest</b>	<b>-\$76</b>	<b>-\$156</b>	<b>-\$335</b>	<b>-\$638</b>	<b>-\$1,084</b>	<b>-\$1,211</b>	<b>-\$816</b>	<b>-\$105</b>	<b>\$442</b>	<b>\$591</b>	<b>\$242</b>	<b>-\$7</b>	<b>-\$3,153</b>
<b>Monthly Tracker Bal w/ Int</b>	<b>-\$55,435</b>	<b>-\$14,542</b>	<b>-\$103,301</b>	<b>-\$131,938</b>	<b>-\$176,035</b>	<b>\$54,431</b>	<b>\$261,917</b>	<b>\$253,344</b>	<b>\$154,624</b>	<b>-\$57,020</b>	<b>-\$190,868</b>	<b>\$4,824</b>	<b>\$0</b>
<b>YTD Tracker Bal w/ Int</b>	<b>-\$55,435</b>	<b>-\$69,978</b>	<b>-\$173,278</b>	<b>-\$305,216</b>	<b>-\$481,251</b>	<b>-\$426,821</b>	<b>-\$164,904</b>	<b>\$88,440</b>	<b>\$243,065</b>	<b>\$186,044</b>	<b>-\$4,824</b>	<b>\$0</b>	

Note: MISO currently declares each month to simply have a 20% capacity credit for wind resources. In contrast, actual weather patterns show that summer months consistently produce lower wind speeds than other seasons of the year. MISO has discussed the possibility of refining its capacity approach within the next few years. But its current summer and annual percents have been used here.

1	CombustionTurbine (CT) Capital Cost	\$502.00 /kW
2	Carrying Charge	14%
3	Total Avoided Costs	\$70.28 /kW / yr
4	Average Summer Capacity Factor	20.00% (From MISO)
5	Costs Avoided	\$14.06 (Ln 3 * Ln4)
6	Average Annual Capacity Factor	20.00% (From MISO)
7	Availability Factor	95.00%
8	Hours / Year	8,760
9	Annual Hour of Operation	1,664 (Ln 6 * Ln 7 * Ln 8)
10	Capacity Credit (\$ / kWh)	0.00845 (Ln 5 / Ln 9)