

Volume 2B

Testimony and Schedules of Witnesses:

David Prazak

Rate Design

Before the South Dakota Public Utilities Commission  
State of South Dakota

In the Matter of the Application of Otter Tail Corporation  
d/b/a Otter Tail Power Company  
For Authority to Increase Rates for Electric Utility  
Service in South Dakota

Docket No. EL08-\_\_\_\_\_

Exhibit\_\_\_\_\_

**RATE DESIGN**

Direct Testimony and Schedules of

**DAVID G. PRAZAK**

October 31, 2008

## TABLE OF CONTENTS

I.	INTRODUCTION AND QUALIFICATIONS.....	1
II.	RATE SCHEDULE CHANGES RELATING TO OTP POLICY INITIATIVES .....	3
III.	RATE STRUCTURE OBJECTIVES.....	6
IV.	RATE STRUCTURE EVALUATION .....	7
V.	INDIVIDUAL RATE PROPOSALS .....	13
VI.	RATE SCHEDULE CHANGES OTHER THAN RATES. ....	59
VII.	SUMMARY AND RECOMMENDATIONS FOR FURTHER RATE STRUCTURE CHANGES IN FUTURE RATE CASES.....	95

1 **I. INTRODUCTION AND QUALIFICATIONS**  
2

3 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

4 A. David G. Prazak, 215 South Cascade Street, Fergus Falls, Minnesota 56537.  
5

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

7 A. I am employed by Otter Tail Power Company (“Otter Tail Power,” or “OTP”) as Supervisor  
8 of Pricing.  
9

10 Q. PLEASE SUMMARIZE YOUR EDUCATION, WORK EXPERIENCE,  
11 QUALIFICATIONS, DUTIES, AND RESPONSIBILITIES.

12 A. I have a Bachelor of Science degree in Energy Management with a concentration in  
13 Industrial Technologies from Minnesota State University Moorhead.

14 I have nearly 20 years of experience in the energy industry. I have over 11 years of  
15 experience in the Regulatory Services Department as Supervisor of Pricing. Previously, I  
16 worked for an energy management company, another electric utility, and as a consultant in  
17 demand-side management planning, evaluation and training.

18 As Supervisor of Pricing at OTP, I manage the design and implementation of retail  
19 pricing strategies for rate schedule and contract pricing, including rates, rate design and all  
20 rate schedule provisions.  
21

22 Q. FOR WHOM ARE YOU TESTIFYING?

23 A. I am testifying on behalf of OTP.  
24

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

26 A. The purpose of my direct testimony is to: (1) explain the implementation of rate-related  
27 policy-driven initiatives that were outlined by Mr. Thomas Brause in his testimony; (2)  
28 describe the rate structure objectives that were used in developing the proposed rates; (3)  
29 explain the process OTP used to evaluate potential rate structures; (4) describe the proposed  
30 rate design for OTP’s rate schedules and riders; (5) describe the development of OTP’s

1 proposed changes to base rate schedules and riders; and (6) support the proposed general  
2 overhaul of OTP’s rate schedule provisions.

3 The following is a list of the rate schedules and riders addressed in my testimony, I have  
4 enumerated them below:

- 5 • Residential Service
- 6 • Residential Service – Controlled Demand
- 7 • Farm Service
- 8 • Small General Service (less than 20 kW)
- 9 • General Service (20 kW or greater)
- 10 • Commercial Demand Control
- 11 • Electric Climate Control
- 12 • Commercial Time of Use
- 13 • Large General Service
- 14 • Large General Service – Time of Day
- 15 • Large General Service Off-Peak Rider
- 16 • Real Time Pricing Rider
- 17 • Large General Service Rider
- 18 • Irrigation Service
- 19 • Outdoor Lighting
- 20 • Outdoor Lighting – Energy Only
- 21 • Municipal Pumping Service
- 22 • Civil Defense-Fire Sirens
- 23 • Water Heating Controlled Service Rider
- 24 • Controlled Service – Interruptible Load (CT Metering) Rider
- 25 • Controlled Service – Interruptible Load (Self-contained metering) Rider
- 26 • Standby Service
- 27 • Controlled Service – Deferred Load Rider
- 28 • Fixed Time of Delivery Rider
- 29 • Bulk Interruptible Rider
- 30 • Air Conditioning Control Rider
- 31 • Renewable Energy Rider
- 32 • Released Energy Rider
- 33 • Small Power Producer Riders

34  
35  
36 Q. WERE THE SCHEDULES YOU SPONSOR PREPARED BY YOU OR UNDER YOUR  
37 SUPERVISION?

38 A. Yes, they were.

39

1 Q. WHAT REQUIRED SCHEDULES ARE YOU SPONSORING?

2 A. I am sponsoring a summary of present and proposed revenues by class and a more detailed  
3 comparison of present and proposed revenues by rate schedule and rate component. As  
4 required by ARSD § § 20:10:13:85, the summary comparisons are included in Statement I in  
5 Volume 1. I also sponsor a Summary of Allocations of Inter- and Intra Class, which is  
6 Exhibit \_\_\_(DGP-1), Schedule 1 and a matrix of Miscellaneous Rate Schedule changes  
7 which is Exhibit \_\_\_(DGP-1), Schedule 2.

8 I am also sponsoring OTP's rate book revisions, which are contained in Volume 3. The  
9 volume includes proposed final rate schedule sheets and black-lines showing the changes. It  
10 also includes OTP's proposed form service agreements for use with rates for which customer  
11 agreements are appropriate.

12

13 Q. WHAT DOES THE SUMMARY COMPARISON INDICATE CONCERNING THE TEST  
14 YEAR REVENUES BY CLASS UNDER THE PRESENT AND PROPOSED RATES?

15 A. The 2007 test year revenues at present and proposed rates for the Electric Utility-South  
16 Dakota jurisdiction are \$25,375,778 and \$29,259,177 respectively. The difference between  
17 these present and proposed rate revenues is \$3,883,399. This increase in rate revenues is the  
18 revenue deficiency.

19 Present rates are primarily those authorized in OTP's last electric rate case, Case No.  
20 F-3691. The test year sales for the test year were applied to both present and proposed rates  
21 to obtain these Test Year revenues.

22

23 **II. RATE SCHEDULE CHANGES RELATING TO OTP POLICY**  
24 **INITIATIVES**

25

26 **CHANGES TO THE FUEL CLAUSE\_NON-ASSET-BASED WHOLESALE MARGINS**

27 Q. WHAT CHANGES TO THE FUEL CLAUSE RIDER RATE SCHEDULE ARE NEEDED  
28 TO IMPLEMENT OTP'S NON-ASSET-BASED WHOLESALE MARGIN PROPOSAL?

1 A. As discussed by Mr. Brause and Mr. Peter Beithon, we are proposing to pass a portion of the  
2 margins from non-asset based wholesale margins through OTP’s Fuel Clause Adjustment  
3 (“FCA”) mechanism. Proposed changes to our FCA rider include:

4 Calculating and applying fifteen (15) percent of non-asset-based margins annually. The  
5 annual calculation protects ratepayers from the risk of any net annual loss on non-asset based  
6 wholesale sales. Once the fifteen (15) percent is calculated, OTP will calculate a rate by  
7 dividing the fifteen (15) percent margin amount by the sales for the twelve-month (historical)  
8 period. Actual margin credits shall be subject to further true-up based on MISO  
9 resettlements. The rate will be a credit (subtraction) to the succeeding twelve-month’s fuel  
10 clause adjustment rate calculation.

11 The above described credits will apply to all kWh subject to the FCA. I discuss the  
12 application of the FCA to OTP rates below.

13 It should also be noted that we are proposing to simplify the name of our FCA to “Energy  
14 Adjustment Rider.”

15  
16 **APPLICATION OF FCA TO RATES**

17 **Q. WHY IS OTP PROPOSING TO INCLUDE ITS FCA ON ALL ITS ENERGY-BASED**  
18 **RATES?**

19 A. As Mr. Brause explained in his testimony, OTP is not typical of other utilities in that it  
20 currently has some rates that do not include a FCA. This means those customers that have  
21 been receiving service under these rates have not been paying for recent increases in fuel and  
22 purchase power costs that have occurred since OTP’s last rate case. Rather, they have been  
23 paying for fuel and purchased power at 1987 prices (the test year of OTP’s last rate case).  
24 OTP believes that by adding the FCA to these rates, it will send more appropriate pricing  
25 signals to these customers. In addition to the benefits of price transparency and rate  
26 efficiency, such signals are necessary to promote conservation.

27 An additional benefit of applying the FCA to the non-FCA rates at this time is doing so  
28 provides a method by which the wholesale margin credit, described above, can be applied to  
29 the rates of all OTP customers. If the FCA is not applied to all rates, those customers taking

1 service under non-FCA rate will not receive the wholesale margin credit proposed by OTP  
2 and described earlier in my testimony.

3  
4 Q. IS OTP PROPOSING ANY EXCEPTIONS?

5 A. Yes. Three rate schedules do not have FCA applied: Fire Sirens, Real Time Pricing and a  
6 new proposed rate schedule, Large General Service Rider – System Marginal Energy Price  
7 (SMEP). The FCA has not been applied to the Fire Sirens rate because there are no energy  
8 charges. The charges are based on horsepower (i.e., non-volumetric). The Real Time Pricing  
9 and SMEP rates don't include the FCA because they are based on OTP's forecasted hourly  
10 costs so fuel costs from these are included in the hourly rates. In other words, to apply the  
11 FCA on these hourly-based rates would over collect FCA revenues from these customers.

12  
13 Q. IS THE PROPOSED ADDITION OF THE FCA TO THESE NON-FCA RATES THE  
14 REASON THAT THEY ARE SEEING A LARGER RATE INCREASE THAN OTHER  
15 RATES?

16 A. No. The addition of the FCA isn't causing that increase. The larger percentage increase is  
17 due to the fact that these non-FCA rates have been benefiting from very low unadjusted fuel  
18 and purchase power costs set in 1987. This is different from the FCA rates, which have been  
19 incorporating fuel and purchased power cost increases through the FCA over time.

20 Even if we weren't proposing to add the FCA to these rates, the non-FCA rates would be  
21 subject to the same increases, based upon current fuel and purchased power costs. The only  
22 difference that would occur for these rates if the FCA were not added to them is that they  
23 would not be subject to variations in fuel and purchased power costs going forward after the  
24 conclusion of this case. They would not continue with 1987 fuel and purchased power costs.

25  
26 **ELIMINATION OF DECLINING BLOCK RATES**

27 Q. PLEASE EXPLAIN OTP'S INITIATIVE TO ELIMINATE ITS DECLINING BLOCK  
28 RATES.

29 A. As discussed by Mr. Brause, OTP is proposing to eliminate its current declining block rate  
30 structures. Declining block rates are usage-based rates for which the price decreases as usage

1 increases. Such rates are premised on the fact that rates recover both fixed and variable costs  
2 and, as usage increases, the fixed costs can be over recovered if the rate does not change  
3 (decline) with increased usage. Such rates, however, are outof favor because of a concern  
4 that such rates do not adequately promote conservation and follow marginal costing  
5 principles. Therefore, we propose to eliminate all OTP’s declining block rate structures.  
6 This proposal is discussed more fully later in my testimony.

7  
8  
9 **III. RATE STRUCTURE OBJECTIVES**  
10

11 Q. WHAT ARE THE RATE STRUCTURE OBJECTIVES THAT GUIDE OTP’S  
12 PROPOSAL IN THIS CASE?

13 A. OTP identified the following rate structure objectives:

- 14 • The rate design should give the utility a reasonable opportunity to achieve its revenue  
15 requirement. This implies rate structures that follow OTP’s marginal cost structure,  
16 thereby allowing revenues to track costs.
- 17 • The rate design should promote efficient use of resources, conservation and use of  
18 renewables. This implies giving consumers price signals that reflect marginal costs,  
19 including seasonal differences and, where reasonably possible, time-of-day (TOD)  
20 differences.
- 21 • Any rate design changes should be gradual where necessary to avoid large bill impacts.
- 22 • The rate design should be based on structures that are reasonable and  
23 nondiscriminatory. This includes minimizing cross-subsidies within rate classes.
- 24 • The rate design should result in rates that are administratively feasible. This includes  
25 taking metering and billing system constraints into account and avoiding unnecessary  
26 complexity that might confuse customers.
- 27 • The rate design should preserve the attractiveness of load control/interruptible riders.  
28

1 **IV. RATE STRUCTURE EVALUATION**

2  
3 Q. PLEASE SUMMARIZE THE MAIN POINTS OF THIS PORTION OF YOUR  
4 TESTIMONY.

5 A. This portion of my testimony makes two main points:

- 6 • Consistent with OTP’s rate design objectives I based the structure of the rate schedules  
7 and riders covered by my testimony on the structure of OTP’s marginal costs, tempered  
8 by the need to control bill impacts and maintain a suitable inter- and intra-class  
9 relationship between the regular rates and riders available to OTP’s customers.
- 10 • The proposed revenue requirement allocation for the rate schedules and riders that are  
11 covered by my testimony was determined by applying the Equal Percentage Marginal  
12 Cost (EPMC) methodology. This approach was used to allocate the revenue  
13 requirement within major classes. The EPMC methodology follows our rate structure  
14 objectives by improving the efficiency of price signals and reducing cross-subsidies.

15  
16 Q. PLEASE DESCRIBE DR. PARMESANO’S AND NERA ECONOMIC CONSULTING’S  
17 (NERA’S) ROLE IN THIS PROCEEDING.

18 A. As explained in Dr. Parmesano’s testimony, OTP engaged NERA to develop, with input  
19 from OTP staff, a marginal cost study covering the period 2008-2012, applicable to service in  
20 North Dakota and South Dakota, and to provide advice on the application of the marginal  
21 cost results in proposed rates.

22  
23 Q. PLEASE COMMENT ON THE MARGINAL COST STUDY CONTAINED IN DR.  
24 PARMESANO’S TESTIMONY.

25 A. OTP closely reviewed Dr. Parmesano’s marginal cost study. The marginal cost study reflects  
26 OTP’s planning and operating practices, regional market situation, and system  
27 characteristics.

28

1 Q. WHAT PROCESS WAS USED TO DESIGN THE PROPOSED RATES AND RIDERS  
2 COVERED BY YOUR TESTIMONY?

3 A. The basic approach was to use the structure and level of marginal costs for each element of  
4 electric service, combined with the class revenue requirement allocations described in the  
5 testimony of Mr. Pete Beithon. Next, the class revenue requirements within the class level  
6 were allocated using the EPMC Methodology to develop rates and riders that produce  
7 sufficient revenues, give improved price signals to consumers, and have acceptable bill  
8 impacts. We used a four-step process. First, we identified a series of rate structures for each  
9 rider or rate that seemed to have the potential to meet OTP's rate structure objectives.  
10 Second, we developed sample rates that used the identified structures and would produce the  
11 rate's proposed revenue, using 2007 billing determinants. Third, we analyzed these sample  
12 rates for consistency with the rate structure objectives and chose the structure for each rate  
13 class that seemed most appropriate, including considerations toward consistent rate designs  
14 across all jurisdictions. We focused on the efficiency of the price signals, bill impacts, and  
15 likely interactions between the sample rates and customer participation in load  
16 control/interruptible programs. Fourth, we refined the charges to mitigate bill impacts and  
17 achieve the overall revenue target.

18  
19 Q. PLEASE DEFINE THE EQUAL PERCENT OF MARGINAL COST (EPMC)  
20 METHODOLOGY.

21 A. The EPMC method utilizes marginal cost revenues to efficiently allocate the revenue  
22 requirement. Basically it assigns each rate a percentage of the total revenue requirement for a  
23 given class equal to that rate's percentage of total marginal cost revenues. The method can be  
24 used to allocate the total revenue requirement across classes and/or within the class level.  
25 This method was only utilized within the class level.

26  
27 Q. WHY WAS THE EMPC METHOD USED TO ALLOCATE REVENUE REQUIRMENTS  
28 WITHIN THE CLASSES?

29 A. This method was used because it aligns with our rate structure objectives – efficiency and  
30 gradualism. The use of marginal costs sends efficient pricing signals. By using an allocation

1 method that uses marginal costs, one can also allocate efficient revenue targets for rates  
2 within a class. In addition, efficient revenue targets may need to be adjusted to promote  
3 gradualism – a gradual approach which mitigates large bill impacts. Therefore the purpose of  
4 this objective is to minimize abrupt rate changes.

5  
6 Q. PLEASE DESCRIBE HOW YOU USED THE EPMC METHOD?

7 A. Recall that the EPMC method is used to allocate the authorized class revenue requirement  
8 within the class level. I used the EPMC method within the classes that have more than one  
9 rate, except for Lighting and OPA classes. For those classes where the EPMC method was  
10 not used, the class allocation was used, as developed and described by the testimony of Mr.  
11 Beithon

12 As described above, the EPMC allocated the increases to the rates within a class from a  
13 marginal cost revenues basis. OTP utilized two EPMC approaches to allocate the revenue  
14 within the classes. Both approaches have different levels of gradualism (mitigating the  
15 abruptness of rate charges).

- 16  
17 1. Method 1 - 50% of EPMC: Under this method, I calculated the revenue increase (from  
18 current rates) that would result from using EPMC within a class to set revenue targets for  
19 each rate within that class. To account for gradualism, I then set the revenue target for  
20 each of these rates at 50% of the increase that would result from strict application of  
21 EPMC. Example – RDC would receive an increase of 50.72% using EPMC within the  
22 residential class; Method 1 reduced the revenue increase for this rate to 25.39%.
- 23  
24 2. Method 2 - 50% of Difference between EPMC and an adjusted CCOSS: This method also  
25 modifies the results from strict application of EPMC within a class. Only one class used  
26 this method. Under this method, the target revenue for a rate is 50% of the difference  
27 between (1) the overall percentage revenue increase proposed by Mr. Beithon for the  
28 class and (2) the percentage revenue increase that would results from applying EPMC to  
29 each rate within the class. This approach also recognizes the objective of gradualism, and  
30 also takes into consideration the fact that the class as a whole is receiving a revenue

1 increase. For example – Interruptible Large Dual Fuel rates would see a revenue increase  
 2 of 55.67% under EPMC. The increase for the Controlled Service Deferred class, based on  
 3 the testimony of Mr. Beithon, adjusted as described in item (1) above, was 45.0%. By  
 4 using Method 2, the revenue target for this rate was set at 42.04%--half of the difference  
 5 between 55.67% and the adjusted CCOSS increase of 45%.

6 A summary of the CCOS assigned increase by classes and EPMC methods for  
 7 allocation and gradualism within classes is shown in Table 1 below.

8 **Table 1 – Summary of EPMC Methods – Gradualism (DRAFT)**

CCOSS Classes	CCOSS Proposed Increase	EPMC Method
Residential	15.00%	Method 1
Farm	15.00%	N/A
Small General Service	12.53%	Method 1
Large General Service	15.00%	N/A
Irrigation	17.00%	Method 1
Lighting	20.0%	N/A
OPA	17.5%	N/A
Water Heating	33.0%	N/A
Interruptible	30.0%	Method 2
Deferred Load	14.0%	Method 1

10  
 11  
 12 For further details, please see Exhibit \_\_\_ (DGP-1), Schedule 1.

13  
 14 Q. WHAT ARE THE RATE STRUCTURES THAT YOU EVALUATED FOR EACH  
 15 CLASS?

16 A. The tables below summarize the structures we evaluated for rates (Table 2) and riders (Table  
 17 3). The rate structures include various degrees of time-differentiation (seasonal and time-of-  
 18 day), alternative billing mechanisms to recover local distribution costs, the presence or  
 19 absence of demand charges, and various forms of declining blocks. Each structure identified  
 20 for evaluation is designed to move the rate design toward a structure that matches OTP’s cost  
 21 structure.

1 The structures selected for inclusion in our proposal are shown by the “shaded” gray  
 2 boxes.

3 **Table 2. Rates Structures Evaluated**

Base Rate Schedule		Proposed Rate Structures for Initial Screening											
Rate or Rider	Fixed Charges			Energy Charges (\$/kWh)					Demand Charges (\$/kW)				
	Customer Charge	Monthly Min Bill	Local Facilities Charge	Non-seasonal	Seasonal	Seasonal TOD	Declining Block	Penalty	Non-Seasonal	Seasonal	Seasonal & TOD	Ratcheted Billing Demand	
Residential	C	C		C				C					
1	✓	✓			✓								
2	✓	✓			✓								
3	✓	✓	kWh		✓								
4	✓	✓	Fixed		✓								
Residential Demand Control	C	C		C						C		11-month to winter only	
1	✓	✓			✓					✓		11-month to winter only	
2	✓	✓	kWh		✓					✓		11-month to winter only	
3	✓	✓	kWh		✓					✓		By season	
4	✓	✓	Fixed		✓					✓		11-month to winter only	
5	✓	✓	Fixed		✓					✓		By season	
Farm Service	C	C	>25 kVa	C				C					
1	✓	✓	1 & 3 Phase	✓				✓					
2	✓	✓	1 & 3 Phase		✓								
3	✓	✓	1 & 3 Phase		✓			✓					
Small General Service (less than 20 kW)	C	C	C	C				C					
1	✓	✓	✓		✓			✓					
2	✓	✓	✓		✓			✓					
General Service (20 kW or greater)	C	C	C	C				C					
1	✓	✓	✓		✓			✓					
2	✓	✓	kW		✓								
Large General Service		C		C				C				C	
1	✓	✓		✓				✓				✓	
2	✓	✓	kW		✓			✓		✓			
3	✓	✓	kW		✓					✓			
Commercial Time of Use (NEW)		C	Customer-specific			C							
1	✓	✓	Customer-specific			✓							
2	✓	✓	Customer-specific			✓				✓			
Large General Service - Time of Day	C	C	C			C							
1	✓	✓	✓			✓							
2	✓	✓	✓			✓						✓	
Standby Service - Under & Over 100 kW		C	C			C				C			
1	✓	✓	✓			✓				✓			
2	✓	✓	✓			✓						✓	
3													
Irrigation Service - Option 1 Non-TOD		C	Customer-specific	C									
1	✓	✓	Customer-specific		✓					✓			
2	✓	✓	Customer-specific		✓								
Irrigation Service - Option 2 TOD		C	Customer-specific			C							
1	✓	✓	Customer-specific			✓							
2	✓	✓	Customer-specific			✓						✓	
Outdoor Lighting - Energy Only Dusk to Dawn		C	C	C (option 1)						C (option 2)			
1	✓	✓	✓	(option 1)						(option 2)			
Municipal Pumping Service		C						C					
1	✓	✓	✓	✓									
2	✓	✓	✓		✓								
Civil Defense - Fire Sirens			C	included in Facilities charge									
1	✓	✓	✓	included in Facilities charge									

4 Legend   - Selected C - current rate design ✓ - proposed rate design

1 **Table 3. Rider Structures Evaluated**

Rider Schedule	Proposed Rate Structures for Initial Screening											
	Fixed Charges			Energy Charges (\$/kWh)					Demand Charges (\$/kW)			
Rate or Rider	Customer Charge	Monthly Minimum Bill	Local Facilities Charge (\$/design kW)	Non-seasonal	Seasonal	Seasonal & TOD	Declining Block	Penalty kWh	Non-Seasonal	Seasonal	Seasonal & TOD	Ratcheted Billing Demand
Water Heating – Controlled Service	C	C		C								
1	✓	✓			✓							
2	✓	✓	✓		✓							
Real Time Pricing Rider	C					Hourly	Hourly					
1	✓											
Large General Service Rider	None											
1	✓											
Controlled Service – Interruptible Load (CT Metering)		C	C		C			C				
Option 1a	✓	✓	Fixed \$		✓			✓				
Option 1b	✓	✓	kWh		✓			✓				
Option 2a	✓	✓	Fixed \$		✓							By season
Option 2b	✓	✓	kWh		✓							By season
Controlled Service – Interruptible Load (Self-Cont. Metering)		C	C		C			C				
1	✓	✓	Fixed \$		✓			✓				
2	✓	✓	✓		✓			✓				
Controlled Service – Deferred Load Rider	C	C		C				C				
1	✓	✓	Fixed \$		✓			✓				
2	✓	✓	kWh		✓			✓				
3	✓	✓										
Fixed Time of Delivery Rider		C	C	C								
1 - 301 thru 303	✓	✓	Fixed \$	✓	✓			✓				
2 - 301 thru 303	✓	✓	kWh		✓			✓				
Legend	- Selected			C	- current rate design			✓	- proposed rate design			

2

3

4 Q. WERE THERE ANY RATE STRUCTURES THAT DID NOT FOLLOW THE PREVIOUS  
5 EVALUATION PROCESS?

6 A. Yes. The following rate structures did not follow the previous evaluation process because  
7 the design for these rates remained the same and/or did not require a change in the current  
8 rate process. I will discuss the features of these rate structures later in my testimony.

9

- Outdoor Lighting
- Outdoor Lighting– Energy Only
- Civil Defense-Fire Sirens
- Water Heating Credit – (relocated to Water Heating Controlled Service Rider)
- Real Time Pricing Rider
- Large General Service Rider (New)

10

11

12

13

14

- 1 • Bulk Interruptible Rider
- 2 • Air Conditioning Control Rider (New)
- 3 • Renewable Energy Rider
- 4 • Released Energy Rider
- 5 • Small Power Producer Riders

6

7 **V. INDIVIDUAL RATE PROPOSALS**

8

9 Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?

10 A. In this portion of my testimony I walk through each of the classes and individual rates for  
11 which we are proposing rate design changes.

12

13 Q. HOW WERE THE PROPOSED REVENUE REQUIREMENTS FOR THE PROPOSED  
14 RATE CLASSES AND RIDERS DETERMINED?

15 A. Mr. Beithon proposes the class revenue allocation in his testimony. As Mr. Beithon explains,  
16 OTP’s proposed revenue requirements for each rate/rider are based on the results of the  
17 embedded cost study he prepared, non-cost considerations of rate continuity, and the desire  
18 to mitigate bill impacts.

19

20 Q. HOW WERE THE PROPOSED CLASS REVENUE REQUIREMENTS ALLOCATED  
21 BETWEEN RATES WITHIN THE CLASS?

22 A. Most were allocated by the EPMC methodology that I described earlier in my testimony.

23

24 Q. WHAT RATE DESIGNS ARE YOU PROPOSING FOR THE RESIDENTIAL CLASS?

25 A. There are two rate schedules in the Residential Class: Residential Service and Residential –  
26 Controlled Demand.

27

1 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE RESIDENTIAL  
2 SERVICE RATE.

3 A. I am proposing a non-declining rate block structure for the residential class that includes a  
4 monthly customer charge, a minimum bill equal to that customer charge, and a flat  
5 seasonally-differentiated energy charge. As Table 4 below shows, the energy charges are set  
6 at slightly over 80% of marginal cost to meet the revenue requirement not satisfied by the  
7 customer charge. The current three blocks have been collapsed into one energy block  
8 thereby eliminating the declining block structure. The proposed customer charge is about  
9 one-third of marginal cost. The separate facilities charge is a flat charge for all customers.  
10 Marginal costs for facilities were developed based on customer usage, a proxy for design  
11 demand, tied to transformer and other customer-related distribution equipment. Bill impacts  
12 for relatively small customers are controlled by pricing these elements below marginal cost.  
13

14 **Table 4: Comparison of Current and Proposed Residential Rate and Marginal Costs**

	Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge per month	Energy Charge per kWh		
				All Year	Summer	Winter
<b>Current Rate</b>						
Zone 1	\$5.80	\$5.80		First 200 kWh: \$0.08730		
Zone 9 and Cottages	\$6.55	\$6.55		Next 800 kWh: \$0.07604		
				Excess kWh: \$0.06280		
				Water Heating Credit	-\$3.00	
<b>4 Proposed Rate</b>	\$3.00	\$3.00		All kWh	\$0.08881	\$0.08101
		+Facilities	\$5.00			
		Flat Facilities		Water Heating Credit	-\$4.00	
<b>Marginal Costs</b>	\$10.11	Cust+Facilities		All kWh	\$0.10545	\$0.09619
		kWh > 1,800 in any month	\$11.38			
		kWh always < 1,800 per month	\$44.92			

\*Current Rates Include FCA

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16  
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18 Q. THE CURRENT RESIDENTIAL RATE DIFFERENTIATES THE CUSTOMER CHARGE  
19 BY ZONE. WHY DOES YOUR PROPOSED RATE ABANDON THIS DIFFERENCE  
20 BETWEEN URBAN (ZONE 1) AND RURAL (ZONE 9) CUSTOMERS?

21 A. The current rate charges a higher price per month to customers in Zone 9 (rural) and cottages.  
22 NERA’s marginal cost study identified a slightly higher cost of local facilities for rural  
23 customers versus urban customers. However, the more striking cost difference is between

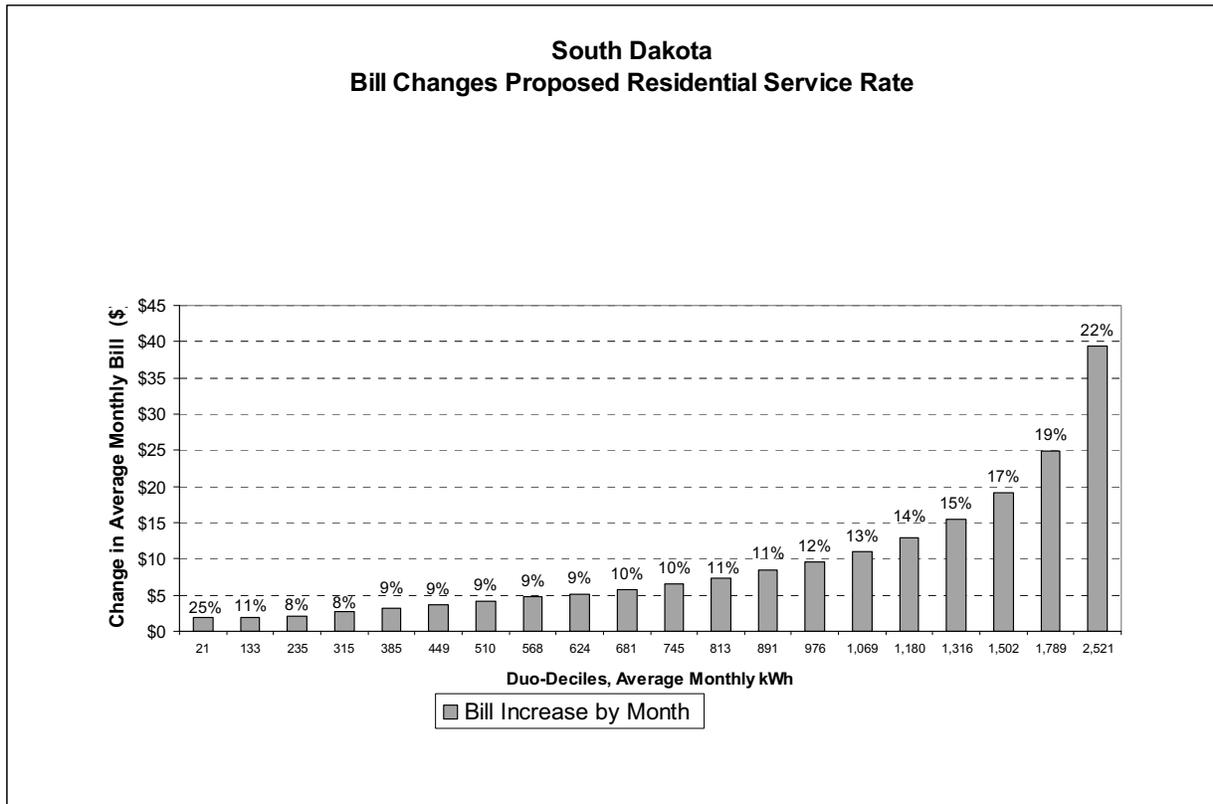
1 customers with very large usage requirements and those with more modest usage  
2 requirements, regardless of zone, as shown in the marginal costs for facilities (i.e., customers  
3 with less than 1,800 kWh/month versus those with greater than 1800 kWh/month). This  
4 difference could be reflected in differential facilities charges, but my proposed rate does not  
5 include such charges, primarily in order to approach this rate with gradualism.  
6

7 Q. WHAT ARE THE BILL IMPACTS OF YOUR RECOMMENDED RESIDENTIAL RATE?

8 A. To analyze bill impacts from each of my recommended rates, we computed the bills under  
9 current rates and under my proposed rates for every OTP customer account in the class, using  
10 2007 billing information (OTP's test year). We then created bar charts showing the average  
11 monthly bill changes (dollar amounts and percentage) for duo-deciles (20 equal segments) of  
12 customers, ordered by average monthly kWh use. Each bar represents 5 percent of accounts  
13 in the class. It is important to keep in mind that the smallest one or two bars probably include  
14 significant numbers of customers who were not on the system for the entire year, are seasonal  
15 customers, or are anomalies such as customers who shifted from one rate to another (or  
16 shifted load to a rider) during the year.

17 As the bar chart for residential customers below shows (Figure 1), the average monthly  
18 bill impacts are quite modest in dollar terms, except for the largest 5 percent of customers,  
19 whose monthly use averages over 2,500 kWh. These large usage customers would lose the  
20 benefits of the intra-class subsidy resulting from the two below-cost blocks in the current  
21 rates. About 85% of residential customers will see monthly bill increases of less than \$15  
22 and about 70% will see monthly increases of under \$10. These increases are reasonable  
23 considering that OTP has not had a base rate increase in over 20 years and the proposed  
24 average increase to the residential class is 15% percent.  
25

1 **Figure 1: Bill Impacts – Residential Service**



2

3 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE RESIDENTIAL-  
 4 CONTROLLED DEMAND RATE.

5 A. As shown in Table 5, my proposed Residential Controlled Demand rate retains the current  
 6 customer charge, but adds a flat facilities charge for all customers that is about 62% of  
 7 marginal facilities costs for customers under 5000 kWh/month and about 16% of marginal  
 8 facilities costs for customers over 5000 kWh/month . My proposal uses seasonal energy  
 9 charges based on about 62% of marginal cost, to match the revenue requirement for this  
 10 class. The seasonal energy charges provide a better price signal than the non-seasonal energy  
 11 charges in the current rate. My proposed rate retains seasonal demand charges, but the  
 12 summer demand charge is higher than the winter demand charge, reflecting OTP’s higher  
 13 summer marginal capacity costs. The current demand charges are levied with a 12-month  
 14 ratchet, using only the winter season. Under my proposal, the demand charges follow the  
 15 same ratchet as the current demand charges. The demand charges are below marginal cost by

1 approximately the same percentage as the energy charges, to preserve the marginal cost  
 2 relationships.

3  
 4 **Table 5: Comparison of Current and Proposed Residential Controlled Demand and**  
 5 **Marginal Costs**

	Customer Charge per month	Minimum Bill per month	Facilities Charge per per KW month	Charge per kWh		Demand Charge per kW per mo.	
				Summer	Winter	per 12-mo. max monthly	Summer
Current Rate No Seasonality - 12-month Demand Ratchet	\$10.55	Customer Charge	\$0.00	\$0.04060	\$0.04060	\$3.69	\$7.32
Rate 4 Seasonal with Flat Facilities Charge, with 12-month Winter Ratchet	\$10.55	Customer + Facilities Charge		All kWh: \$0.05435	\$0.05487	\$7.65	\$3.09
		Flat Facilities	\$7.00				
Marginal Costs	\$16.77	<5000 kWh in all months: >5000 kWh in any month:	\$11.38 \$44.92	Energy Only: Summer Winter		Capacity Only Summer Winter	
				\$0.08843	\$0.08929	\$12.45	\$5.03

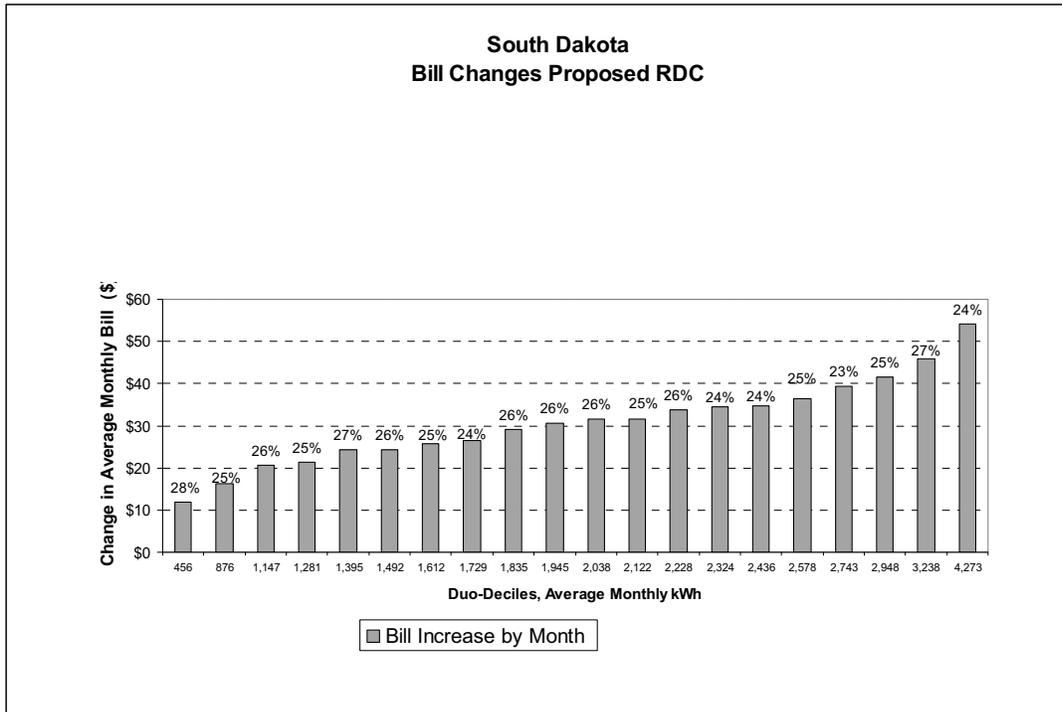
\*Current Rates Include FCA

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 7  
 8 Q. WHAT ARE THE BILL IMPACTS FROM YOUR PROPOSED RESIDENTIAL  
 9 CONTROLLED DEMAND RATE?

10 A. As Figure 2 shows, the bill impacts are fairly consistent in percentage terms, ranging from 23  
 11 – 28%, across groups of customers with increasing average monthly energy consumption.  
 12 The average customer usage on Residential Controlled Demand is greater than the  
 13 Residential Service Customer by a factor of about 2.4.

14

1 **Figure 2: Bill Impacts - Residential Controlled Demand**



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Q. WHAT RATE DESIGN ARE YOU PROPOSING FOR THE FARM CLASS?

A. There is only one rate in the Farm Class - Farm Service.

Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE FARM SERVICE RATE.

A. My proposed Farm rate eliminates declining blocks and substitutes seasonal energy charges that are about 80% of marginal cost. All customers on the rate will have the same customer charge, but the rate incorporates a surcharge for customers with three-phase service. The three-phase surcharge, levied per customer per month, is equal to the additional marginal cost of providing three-phase service. The surcharge varies depending on whether the customer is served from overhead or underground facilities and whether the customer's transformer is below 25 kVA or is 25 kVA and greater. This surcharge improves the equity of the rate by reflecting the higher costs of providing three-phase service and the higher cost of underground three-phase service.

1 **Table 6: Comparison of Current and Proposed Farm Service and Marginal Costs**

2

	Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge per kVA of Transformer	Summer	Energy per kWh Winter	All Year
<b>Current Rates</b>	\$7.70	\$7.70 + \$0.80 per kVA above 25 kVA	na		1st 1,600: Excess:	\$0.07281 \$0.06126
<b>Proposed Rate</b>	\$8.00	Cust + Fac	Overhead	<b>3-Phase Surcharge per Mo.</b>		
no declining Block			<25 kVA	\$0.08384	\$0.07649	All Energy
seasonal energy			25 kVA or more			
Customer Charge			Underground			
Facilities for 3ph			<25 kVA			
			25 kVA or more			
<b>Marginal Costs</b>	\$12.34			\$0.10545	\$0.09619	All
				<b>Additional cost for 3-Phase per month</b>		
			Overhead			
			<25 kVA			
			25 kVA or more			
			Underground			
			<25 kVA			
			25 kVA or more			

\*Current Rates Include FCA

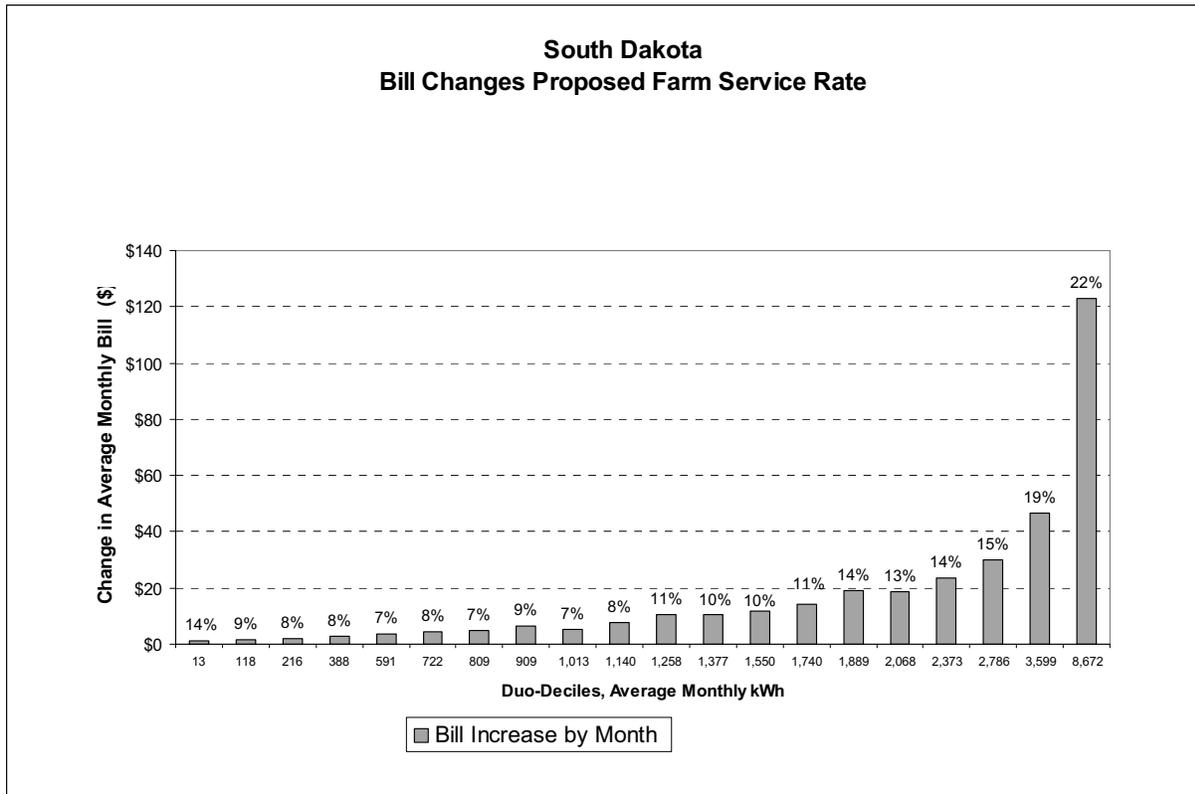
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5 Q. WHAT ARE THE BILL IMPACTS FROM YOUR PROPOSED FARM RATE?

6 A. Monthly bill increases are under \$20 for 80% of the Farm customers. The customers with  
 7 the largest consumption (the last four duo-deciles) will see somewhat larger bill increases  
 8 because they will lose the benefits of the significantly below-cost last block in the current  
 9 rate.

1 **Figure 3: Bill Impacts – Farm Service**



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4 Q. WHAT RATE DESIGNS ARE YOU PROPOSING FOR THE GENERAL SERVICE  
5 CLASS?

6 A. There are five rate designs in the General Service Class: Small General Service (under 20  
7 kW); General Service (20 kW and greater); a new proposal - Commercial Time of Use; and  
8 two designs proposed to be eliminated – Commercial Demand Control (“CDC”) and Electric  
9 Climate Control (“ECC”). The CDC has been an experimental rate for over 20 years and is  
10 currently used by 4 customers. The ECC rate has been closed since 1981 and currently has  
11 approximately 70 customers.

12

13 Q. PLEASE DESCRIBE YOUR OVERALL RATE DESIGN PROPOSAL FOR THE SMALL  
14 GENERAL SERVICE (UNDER 20 KW) AND GENERAL SERVICE (20 KW AND  
15 GREATER) RATES, AND EXPLAIN THE IMPACT OF ELIMINATING THE CDC AND  
16 ECC RATES.

1 A. My proposal for the General Service class is to divide the class, which now includes  
2 customers with demands up to 80 kW, into two parts, with separate rates applicable to  
3 customers with demands below 20 kW (Small General Service) and to those with demand of  
4 20 kW and more (General Service). This change allows use of a simpler, more transparent  
5 rate structure for the smaller customers in this class.

6 The elimination plan for the two rates (CDC and ECC) will cause the customer currently  
7 using these rates to migrate to other applicable electric rate schedules. In our analyses, each  
8 CDC and ECC customer will qualify for either the Small General Service rate or the General  
9 Service rate. Their appropriate billing determinants have been included in the Small General  
10 Service and General Service rate designs as applicable. In addition, bill impact analyses have  
11 been prepared for each of the affected rates. They will be addressed along with the General  
12 Service – under 20 kW and 20 kW and greater - sections below.

13  
14 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE SMALL GENERAL  
15 SERVICE (UNDER 20 KW)

16 A. My proposed rate for the under-20-kW customers eliminates load factor blocks and institutes  
17 a single-block seasonal energy charge structure, which includes capacity costs. My proposed  
18 block is set close to 85% of marginal cost. I also propose a customer charge, a flat facilities  
19 charge and a minimum bill equal to the customer charge plus the facilities charge. This  
20 structure greatly improves the efficiency of the current rate, which has a tail block well below  
21 marginal cost.

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1 **Table 7: Comparison of Current and Proposed Small General Service Less Than 20 kW**  
 2 **and Marginal Costs**

3

	Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge per annual max. kW per month	Energy Charge per kWh			
				Summer	Winter	All Year	kW
<b>SECONDARY</b>							
<b>Current Rate</b>	na		na				
Zone 1:	\$6.00	Customer charge + 50% of highest demand charge over		First 1,000 kWh		\$0.09438	
Zone 2:	\$7.20	50% of highest demand charge over last 11 months		Next 1,000		\$0.08304	
				Excess:		\$0.06400	
				All kWh in excess of 200 per kW of billing demand:		\$0.05431	
				All kW over 10 kW			\$2.15
<b>Current CDC Rate</b>	NA	\$14.12	\$14.12		All Energy	\$0.04636	
				On Peak kW Charge	\$5.60	\$7.51	
				Off Peak kW Charge	\$0.96	\$0.96	
<b>Current Electric Climate Control Rate</b>							
	\$7.90	\$7.90	NA	Heating kWh		\$0.05995	
				Air Conditioning kWh		\$0.05995	
				Cooking kWh		\$0.05995	
				Next 1,000 kWh		\$0.11517	
				Next 1,000 kWh		\$0.10131	
				Excess kWh		\$0.08370	
				All kWh in excess of 200 per kW of billing demand:		\$0.06488	
<b>2 Proposed No dec. Block With Flat Facilities Charge</b>	\$10.00	Customer charge+ Fac	\$3.00				
					\$0.08903	\$0.08122	
<b>Marginal Costs</b>	\$17.51		\$4.55	\$0.10545	\$0.09619	energy plus capacity	
<b>PRIMARY</b>							
<b>Current</b>	5% discount on all charges						
<b>2 Proposed No dec. Block With Flat Facilities Charge</b>	\$10.00	Customer charge+ Fac	\$2.00				
					\$0.08864	\$0.08083	
<b>Marginal Costs</b>	\$17.51		\$3.81	\$0.10498	\$0.09573	energy plus capacity	

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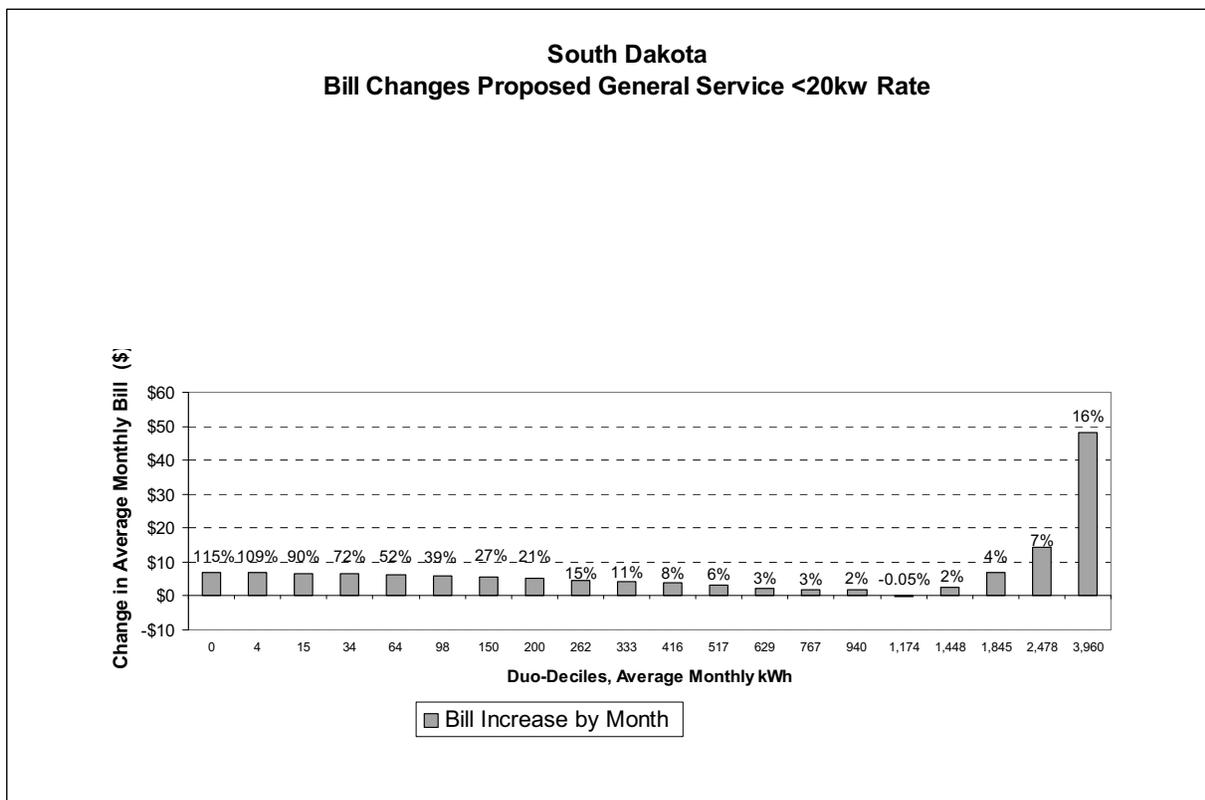
\*Current Rates Include FCA

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Q. WHAT ARE THE BILL IMPACTS FROM YOUR PROPOSED SMALL GENERAL SERVICE RATES FOR CUSTOMERS BELOW 20 KW DEMAND?

A. As shown in Figure 4 below, for 90% of the under-20 kW customers bills will increase under \$10 per month and the remaining 10% will realize increases between \$16 – 50 per month. Small customers under 150 kWh per month will see large percentage increases due to larger minimum bills which reflect increases in customer and distribution costs.

**Figure 4: Bill Impacts – Small General Service Less Than 20 kW**



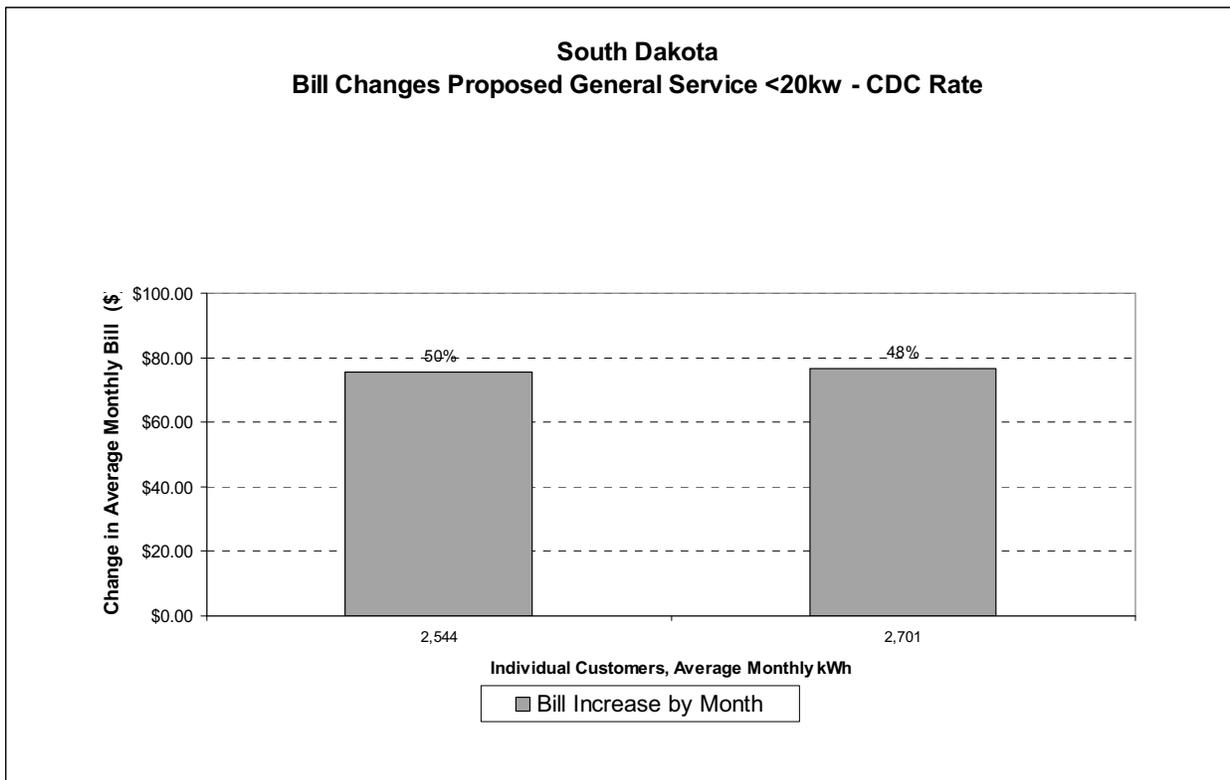
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Q. WHAT ARE THE BILL IMPACTS FOR COMMERCIAL DEMAND CONTROL CUSTOMERS BILLED ON YOUR PROPOSED GENERAL SERVICE RATES FOR CUSTOMERS BELOW 20 KW DEMAND?

A. Figure 5 below, describes the bill impacts for the two CDC customers for whom the Small General Service rate would apply. These bill impacts assume these particular CDC customers

1 did not change their usage patterns. Both of these customers will see large bill increases. Our  
2 energy management representatives will work closely with these two customers to review  
3 other rate options, such as the Commercial Time of Use rate (explained later in my  
4 testimony).

5  
6 **Figure 5: Bill Impacts – Commercial Demand Control Customers Billed on Small General**  
7 **Service Less Than 20 kW**



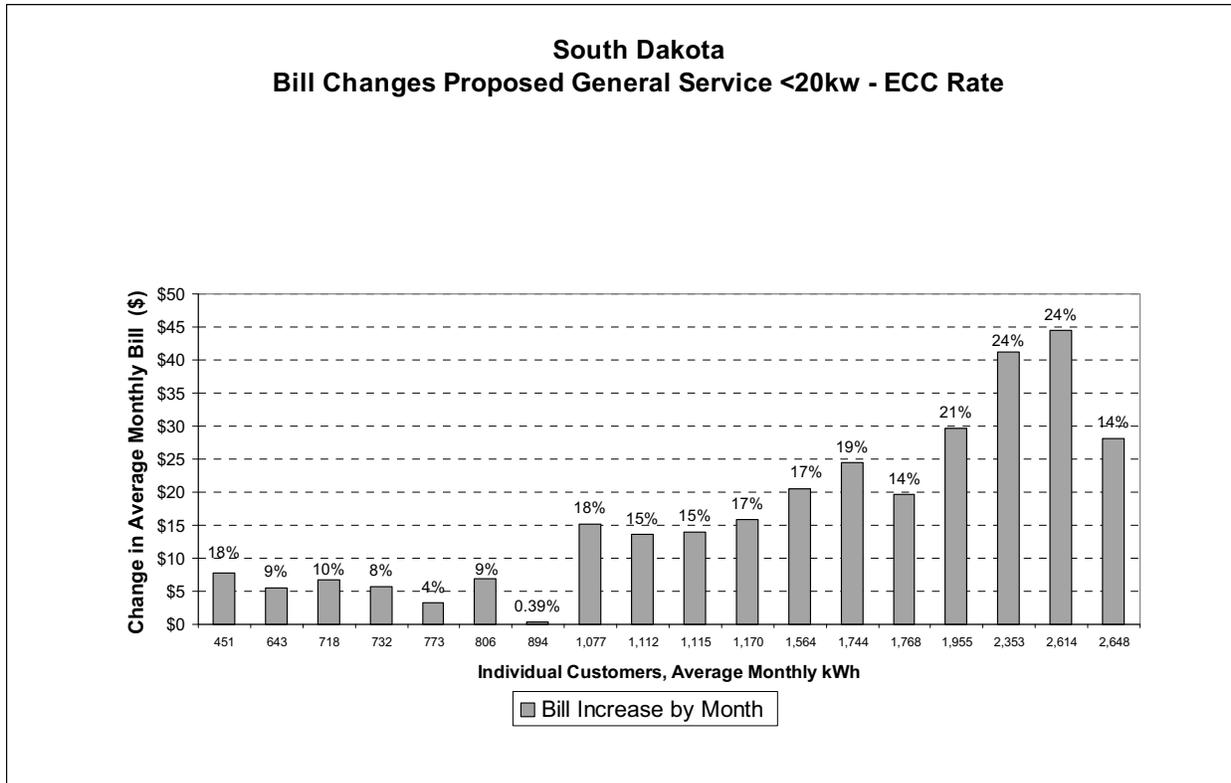
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10 Q. WHAT ARE THE BILL IMPACTS FOR ELECTRIC CLIMATE CONTROL  
11 CUSTOMERS BILLED ON YOUR PROPOSED GENERAL SERVICE RATES FOR  
12 CUSTOMERS BELOW 20 KW DEMAND?

13 A. Figure 6 below, describes the bill impacts for the ECC customers for whom the Small  
14 General Service rate would apply. Bill impacts range from less than 1% to 24%. About 60%  
15 of the customers will see an increase of less than \$20/month. The remaining customers will  
16 see increases between \$20 and \$45/month. In the same manner as described above, these bill

1 impacts assume these particular ECC customers did not change their usage patterns. In this  
 2 case, no customers saw a rate decrease from the rate change to the General Service. Other  
 3 rate options, such as the Commercial Time of Use rate (also explained later in my testimony)  
 4 are available.

5 **Figure 6: Bill Impacts – Electric Climate Control Customers Billed on Small General**  
 6 **Service Less Than 20 kW**



7  
8

9 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR GENERAL SERVICE (20  
 10 KW AND GREATER)

11 A. My proposed rate eliminates load factor blocks and declining energy blocks, which greatly  
 12 simplifies the structure in the current rate. My proposed energy charge is set under 80% of  
 13 marginal cost. The proposed rate for these larger customers includes a customer charge and a  
 14 facilities charge per kW of maximum annual demand, set at about 53 percent of marginal  
 15 cost. These charges help improve the equity and efficiency of the rate structure by

1 eliminating from the variable components of the bill those costs that do not vary with usage  
2 or demand.

3 My proposed rates for General Service customers likewise eliminate the zone differences  
4 in the current rate, for the same reasons I earlier described for the Residential Rates. My  
5 proposal also includes separate charges for secondary and primary customers, unlike the  
6 current rate which simply applies a 5-percent primary discount to the standard bill. My  
7 proposal results in more equitable and efficient charges for customers taking service at  
8 primary voltage because the proposed rate reflects the marginal cost differences and only  
9 those components with marginal costs that differ by voltage level are priced lower for  
10 customers taking service at primary voltage.

11

1 **Table 8: Comparison of Current and Proposed General Service equal to and greater than**  
 2 **20 kW- and Marginal Costs**

	Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge per annual max. kW per month	Energy Charge per kWh		All Year	kW
				Summer	Winter		
<b>SECONDARY</b>							
<b>Current Rate</b>	na		na				
Zone 1:	\$6.00	Customer charge + 50% of highest demand charge over last 11 months			First 1,000 kWh	\$0.09438	
Zone 2:	\$7.20	Customer charge + 50% of highest demand charge over last 11 months			Next 1,000	\$0.08304	
					Excess:	\$0.06400	
					All kWh in excess of 200 per kW of billing demand:	\$0.05431	
					All kW over 10 kW	\$2.15	

<b>Current CDC Rate</b>	NA	\$14.12	\$14.12		All Energy	\$0.04636	
				On Peak KW Charge	\$5.60	\$7.51	
				Off Peak KW Charge	\$0.96	\$0.96	

<b>Current Electric Climate Control Rate</b>							
	\$7.90	\$7.90	NA		Heating kWh	\$0.05995	
					Air Conditioning kWh	\$0.05995	
					Cooking kWh	\$0.05995	
					Next 1,000 kWh	\$0.11517	
					Next 1,000 kWh	\$0.10131	
					Excess kWh	\$0.08370	
					All kWh in excess of 200 per kW of billing demand:	\$0.06488	

<b>2 Proposed No dec. Block With Flat Facilities Charge</b>	\$12.00	Customer charge+ Fac	\$0.52		\$0.08298	\$0.07570	
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<b>Marginal Costs</b>	\$26.50		\$0.98		\$0.10545	\$0.09619	energy plus capacity
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**PRIMARY**

<b>Current</b>	5% discount on all charges						
----------------	----------------------------	--	--	--	--	--	--

<b>2 Proposed No dec. Block With Flat Facilities Charge</b>	\$12.00	Customer charge+ Fac	\$0.38		\$0.08261	\$0.07533	
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<b>Marginal Costs</b>	\$26.50		\$0.65		\$0.10498	\$0.09573	energy plus capacity
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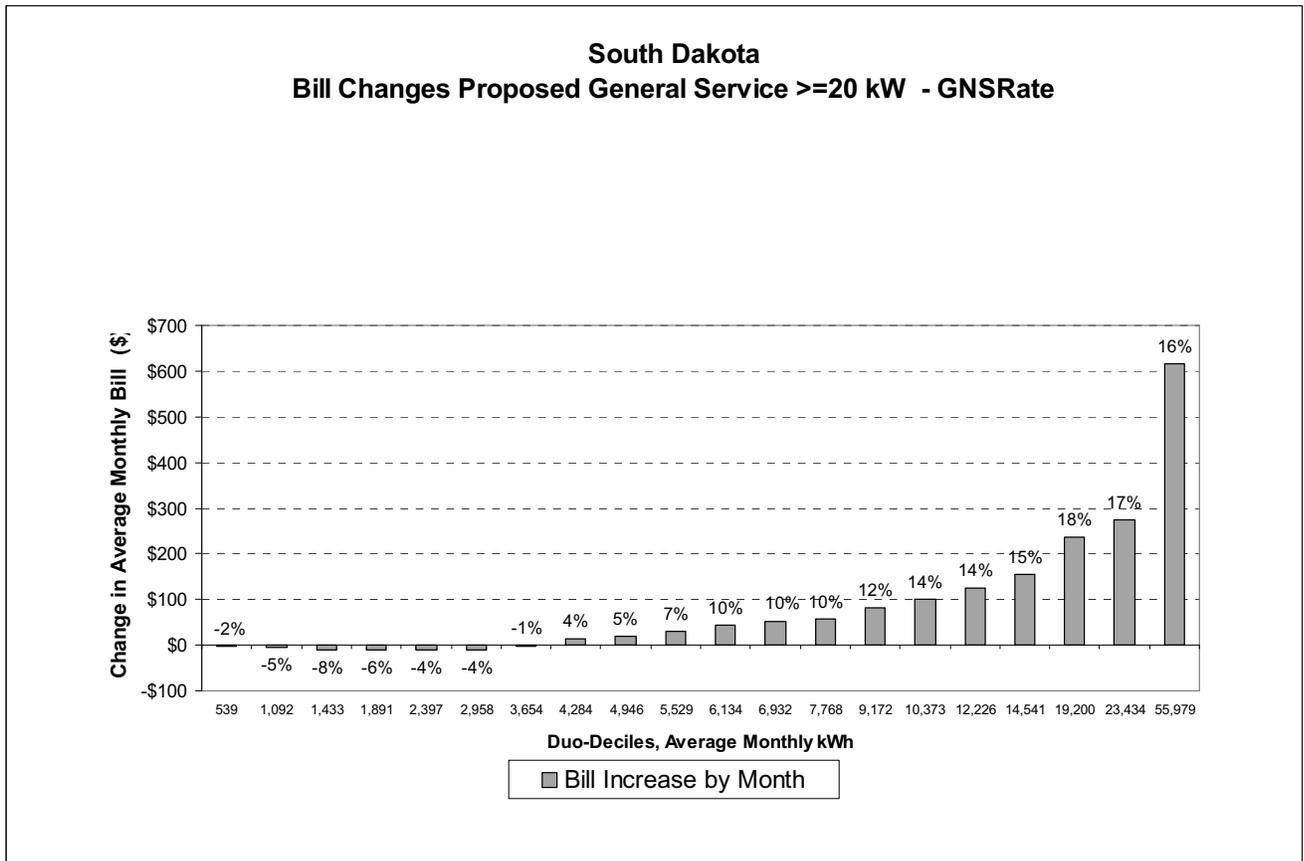
\*Current Rates Include FCA

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1 Q. WHAT ARE THE BILL IMPACTS FROM YOUR PROPOSED GENERAL SERVICE  
 2 RATES FOR CUSTOMERS 20 KW AND GREATER?

3 A. As shown in Figure 7 below, the average bill changes for the 20 kW or greater customers  
 4 show an average decrease for about 35% of the rate class. This is primarily due to the  
 5 reduction in the energy charge for customers in the first 2000 kWh's. The larger customers  
 6 show an increase of up to 18% primarily due to the elimination of the declining block.  
 7

8 **Figure 7: Bill Impacts – Small General Service 20 kW and greater**

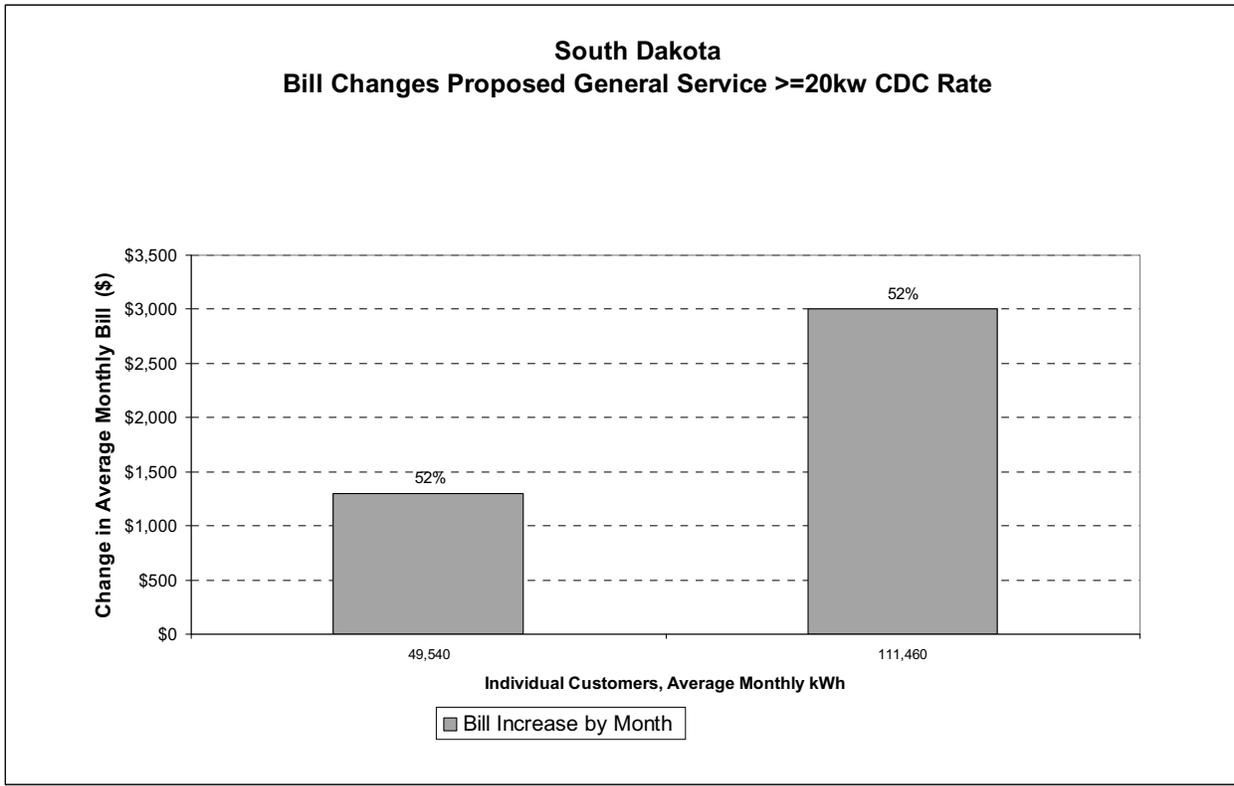


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1 Q. WHAT ARE THE BILL IMPACTS FOR COMMERCIAL DEMAND CONTROL  
2 CUSTOMERS BILLED ON YOUR PROPOSED GENERAL SERVICE RATES FOR  
3 CUSTOMERS WITH DEMAND OF 20 KW AND MORE?

4 A. Figure 8 below, describes the bill impacts for the two CDC customers for whom the General  
5 Service – Equal to and Greater Than 20 kW rate would be applicable. As in the case of the  
6 CDC customers in the previous analysis, both of these customers will see relatively large bill  
7 increases and will work closely with our energy management representatives. These bill  
8 impacts assume these particular CDC customers would not change their usage patterns. Other  
9 rate options, such as the Commercial Time of Use (explained later in my testimony) are  
10 available.

11 **Figure 8: Bill Impacts – Commercial Demand Control Customers Billed on General**  
12 **Service Equal to and Greater Than 20 kW**  
13



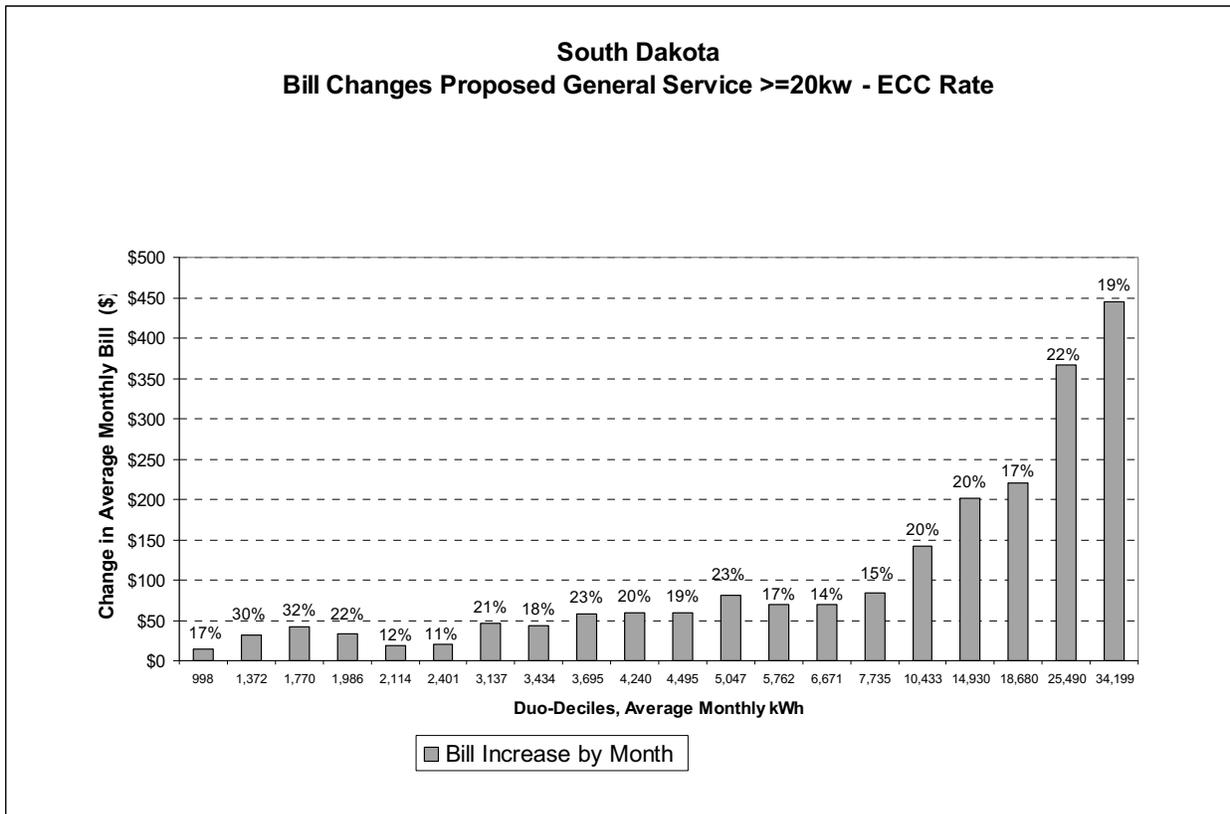
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1 Q. WHAT ARE THE BILL IMPACTS FOR ELECTRIC CLIMATE CONTROL  
 2 CUSTOMERS BILLED ON YOUR PROPOSED GENERAL SERVICE RATES FOR  
 3 CUSTOMERS WITH DEMAND OF 20 KW AND MORE?

4 A. Figure 9 below, describes the bill impacts for the ECC customers for whom the General  
 5 Service – Equal to and Greater Than 20 kW rate would apply. The increases for these  
 6 customers range from 11-32%. These bill impacts assume these particular ECC customers  
 7 would not change their usage patterns. In this case, no customers see a rate decrease from the  
 8 rate change to the General Service. Other rate options, such as the Commercial Time of Use  
 9 (also explained later in my testimony) are available.

10

11 **Figure 9: Bill Impacts – Electric Climate Control Customers Billed on General Service**  
 12 **Equal to and Greater Than 20 kW**



13

14

1 Q. ARE YOU MAKING ANY ADDITIONAL PROPOSALS FOR THE SMALL GENERAL  
2 SERVICE RATE?

3 A. Yes. In addition, my proposal includes a new rate schedule, Commercial Time of Use Rate.  
4 This rate is currently available to OTP customers in Minnesota.  
5

6 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE COMMERCIAL  
7 TIME OF USE RATE.

8 A. This rate is similar to Option 2 of the Irrigation rate shown later in my testimony in that  
9 customers pay a high rate in hours defined by OTP to be periods of peak conditions. My  
10 proposed rate seasonally differentiates the charges, adds a demand charge in the intermediate  
11 period, and sets the on-peak (“declared peak”) energy charges at full marginal cost (energy  
12 plus demand) expected in the hours likely to be defined as system peak hours. The demand  
13 charges are levied without a ratchet. This new structure gives a strong, efficient and  
14 transparent price signal to customers during critical hours. The proposed rate also introduces  
15 a small customer charge and sets the minimum bill at the sum of the customer charge and  
16 customer-specific facilities charge.  
17

18 **Table 9: Comparison of Current and Proposed Commercial TOU Rate and Marginal Costs**  
19

	Customer Charge per month	Minimum Bill per month	Facilities Charge per per KW month	Charge per kWh		Demand Charge per kW per mo.	
				Summer	Winter	Summer	Winter
Current Rate							
Rate 1	Seasonal Energy with Peak, Shoulder, Off Peak	\$12.00	Cust+Fac.	On \$0.21584	\$0.14289	\$0.00	\$0.00
				Shoulder \$0.07316	\$0.07414	\$2.55	\$2.95
				Off \$0.04334	\$0.04486	\$0.27	\$0.11
						per seasonal max kW	
Marginal Costs	\$36.39		\$0.98	Energy Only:		Capacity Only	
				\$0.27369	\$0.18119	\$0.00	\$0.00
				\$0.09277	\$0.09402	\$3.24	\$3.74
				\$0.05496	\$0.05689	\$0.34	\$0.14

\*Current Rates Include FCA

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21

1 Q. WHAT ARE THE BILL IMPACTS FROM THE PROPOSED COMMERCIAL TOU  
2 RATE?

3 A. This is a new service offering and therefore there are no current customers from which bill  
4 impacts could be measured.

5  
6 Q. WHAT RATE DESIGNS ARE YOU PROPOSING FOR THE LARGE GENERAL  
7 SERVICE CLASS?

8 A. There are four rate designs in the Large General Service Class: Large General Service, a re-  
9 designed Large General Service Time of Day Rate; and Real-Time Pricing Rider. The Real-  
10 Time Pricing Rider and Large General Service Rider will be discussed in a different section  
11 later in my testimony.

12 Q. PLEASE DESCRIBE YOUR OVERALL RATE DESIGN PROPOSAL FOR THE LARGE  
13 GENERAL SERVICE CLASS, INCLUDING THE ELIMINATED RATES.

14 A. My proposal for the Large General Service class improves price signals, including  
15 seasonality, and removes one rate – Large General Service Time of Day, which will be  
16 replaced with a new rate design.

17 The elimination plan for the Large General Service Off-Peak Rider (LGS-Off Peak  
18 Rider) will cause these customers to migrate to other applicable rates. In our analyses, each  
19 LGS Off-Peak Rider has been analyzed in the Large General Service. In addition, bill impact  
20 analyses have been prepared for each of the affected rates. They will be addressed along with  
21 the Large General Service section below.

22

23 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE LARGE GENERAL  
24 SERVICE RATE SCHEDULE.

25 A. My proposal for this rate moves toward a more efficient and straightforward structure. The  
26 proposed rate removes declining block and load factor block structures which are replaced by  
27 single block seasonal demand and energy charges. These charges are based on marginal  
28 costs, but discounted to help match the revenue requirement. Both seasonal demand and  
29 energy charges are set at about 58 percent of marginal costs which places these proposed  
30 charges in between the current blocks. The proposed rate also eliminates the current ratchet

1 for billing demand, thereby improving the transparency price signals and making it easier for  
 2 customers to determine how changes in use in any given hour will affect their bills.

3 The facilities charge varies by size of secondary customer (in terms of maximum annual  
 4 kW) and varies by voltage level. These charges are close to 40 percent of marginal cost. The  
 5 customer charge and the minimum bill is set at the sum of \$280 (approximate marginal  
 6 customer cost) and the facilities charges.

7  
 8 **Table 10: Comparison of Current and Proposed Large General Service and Marginal**  
 9

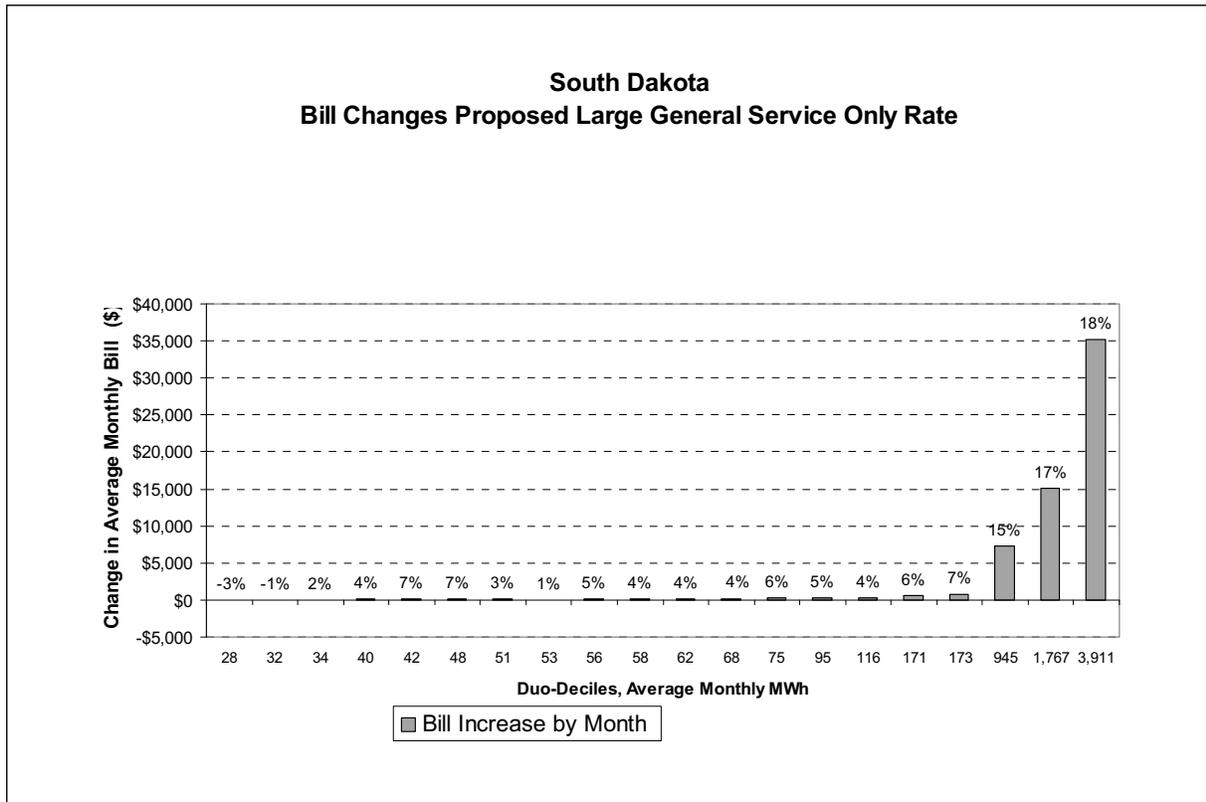
	Customer Charge per month	Minimum Bill per month	Facilities Charge per annual max. kW (minimum 80 kw) per month	Energy Charge per kWh		Demand Charge per kW All Year
				Summer	Winter	
<b>SECONDARY</b>						
<b>Current Rate</b>	\$25.50	Demand Charge	All over 360 kWh per kW	\$0.03704		1st 100 kW of billing demand: \$7.05
			Excess kWh	\$0.04621		Excess kW of billing demand: \$5.15
Note: Billing demand is ratcheted						
Rate 3	\$40.00	\$240.00 + facilities charges	< 1000 kW: \$0.30 > 1000 kW: \$0.15	All kWh \$0.05171	\$0.05220	Summer \$7.28 Winter \$2.94
<b>Marginal Costs</b>	\$254.44	< 1000 kW: \$0.79 > 1000 kW: \$0.40		\$0.08843	\$0.08929	\$12.45 \$5.03
<b>PRIMARY</b>						
<b>Current Rate</b>	\$25.50	Demand Charge	All over 360 kWh per kW	\$0.03655		1st 100 kW of billing demand: \$6.75
			Excess kWh	\$0.04568		Excess kW of billing demand: \$4.85
Note: Billing demand is ratcheted						
Rate 3	\$40.00	\$240.00 + facilities charges	\$0.11	All kWh \$0.05150	\$0.05196	Summer \$7.23 Winter \$2.92
<b>Marginal Costs</b>	\$303.69		\$0.28	\$0.08809	\$0.08887	\$12.36 \$5.00
<b>TRANSMISSION</b>						
Rate 3	\$40.00	\$240.00 + facilities charges	\$0.00	All kWh \$0.05028	\$0.05050	Summer \$5.87 Winter \$2.48
<b>Marginal Costs</b>	\$254.44		\$0.00	\$0.06631	\$0.06275	\$10.04 \$4.25

\*Current Rates Include FCA

10  
 11  
 12 **Q. WHAT ARE THE BILL IMPACTS FROM YOUR PROPOSED LARGE GENERAL**  
 13 **SERVICE RATES?**

14 **A.** Figure 10 below shows the average monthly bill impacts to the Large General Service  
 15 customers. Eighty-five (85) percent of customers on this rate will see increases up to 7%, the  
 16 very large customers, the remaining 15%, will see increases at or just over 15%.

1 **Figure 10: Bill Impacts – Large General Service**



2  
3

4 Q. WHAT ARE THE BILL IMPACTS FOR LARGE GENERAL SERVICE OFF PEAK  
5 RIDER CUSTOMERS BILLED ON YOUR PROPOSED LARGE GENERAL SERVICE  
6 RATE?

7 A. There are no customers currently on this Rider.

8

9 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE LARGE GENERAL  
10 SERVICE TIME OF DAY RATE.

11 A. This is a new rate design proposal. Generally, time-of-day rates provide clearer and more  
12 accurate price signals by showing costs in different times during the day as opposed to an all-  
13 hours flat rate. This proposal has seasonally differentiated charges with on, shoulder, and  
14 off-peak periods for weekdays and weekends. The energy and demand charges for all voltage  
15 levels are set close to 60% of marginal energy costs. Customer and facilities costs for all

voltage levels are set respectively at about 15 percent and 75 percent (except for Primary, which is set at under 52%).

**Table 11: Comparison of Current and Proposed Large General Service Time of Day and Marginal Costs**

	Cust. Charge per month	Monthly Min. Bill per month	Facilities Charge per annual max. kW (min. 80)	Energy Charge per kWh						Demand Charge per kW					
				Summer		Winter		Summer			Winter				
				PK	SH	OP	PK	SH	OP	PK	SH	OP	PK	SH	OP
<b>SECONDARY</b>															
<b>LGS TOD with Customer and Facilities Charges</b>	\$60.00	\$325 + Facilities	\$0.30	\$0.07971	\$0.06110	\$0.03639	\$0.07153	\$0.05818	\$0.04107	\$5.84	\$1.61	\$0.00	\$2.26	\$0.53	\$0.00
Marginal Costs	\$351.89		\$0.79	\$0.13276	\$0.10176	\$0.06061	\$0.11914	\$0.09690	\$0.06840	\$9.73	\$2.69	\$0.04	\$3.77	\$0.88	\$0.38
<b>PRIMARY</b>															
<b>LGS TOD with Customer and Facilities Charges</b>	\$60.00	\$325 + Facilities	\$0.15	\$0.07937	\$0.06085	\$0.03627	\$0.07118	\$0.05791	\$0.04089	\$5.80	\$1.60	\$0.00	\$2.25	\$0.53	\$0.00
Marginal Costs	\$400.99		\$0.29	\$0.13219	\$0.1013	\$0.06041	\$0.11856	\$0.09645	\$0.06810	\$9.66	\$2.66	\$0.04	\$3.74	\$0.88	\$0.38
<b>TRANSMISSION</b>															
<b>LGS TOD with Customer and Facilities Charges</b>	\$60.00	\$325 + Facilities	\$0.00	\$0.07726	\$0.05933	\$0.03555	\$0.06908	\$0.05626	\$0.03980	\$4.93	\$1.08	\$0.00	\$2.04	\$0.46	\$0.00
Marginal Costs	\$400.99		\$0.00	\$0.1287	\$0.09881	\$0.05921	\$0.1151	\$0.0937	\$0.0663	\$8.22	\$1.79	\$0.03	\$3.39	\$0.76	\$0.09

Q. WHAT ARE THE BILL IMPACTS FROM YOUR PROPOSED LARGE GENERAL SERVICE TIME OF DAY RATES?

A. No customer impacts were calculated since this is a new rate design proposal.

Q. WHAT RATE DESIGN ARE YOU PROPOSING FOR THE IRRIGATION SERVICE CLASS

A. There is only one rate in the Irrigation Class: Irrigation Service.

Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE IRRIGATION SERVICE RATE.

A. My proposed rate for Irrigation customers maintain the current two options, both of which provide service from April 15 through November 1. My proposal for both Option 1 and Option 2 retain the customer-specific facilities charges included in the current rates.

1 My proposed Option 1 has seasonal energy charges instead of the uniform energy charges  
 2 in the current rate. The energy charges are slightly below marginal cost, but closer to  
 3 marginal cost in the summer period than the current rate. My proposal introduces a small  
 4 customer charge and dispenses with the horsepower charge.

5 The current Option 2 rate consists of energy charges for off-peak, intermediate, and on-  
 6 peak periods. The on-peak hours are defined by OTP when the system is experiencing peak  
 7 conditions. My proposal for Irrigation Option 2 is to set the price for hours when OTP is  
 8 experiencing peak conditions at about 82 percent marginal cost (energy plus capacity),  
 9 thereby giving Option 2 irrigation customers a transparent signal to curtail use during peak  
 10 periods. These on peak or “declared-peak” marginal costs are the average marginal costs  
 11 expected in the hours defined to be declared peak by OTP, and they vary by season. In the  
 12 intermediate hours (which include the remainder of peak period hours and shoulder hours),  
 13 energy and demand charges will apply. These charges are based on marginal cost but  
 14 discounted to help match the revenue requirement. In the off-peak hours only energy  
 15 charges, again based on discounted marginal energy costs, will apply. My proposed Option 2  
 16 under this rate also introduces a small customer charge.

17  
 18 **Table 12: Comparison of Current and Proposed Irrigation Service Option 1 & 2 and**  
 19 **Marginal Costs**

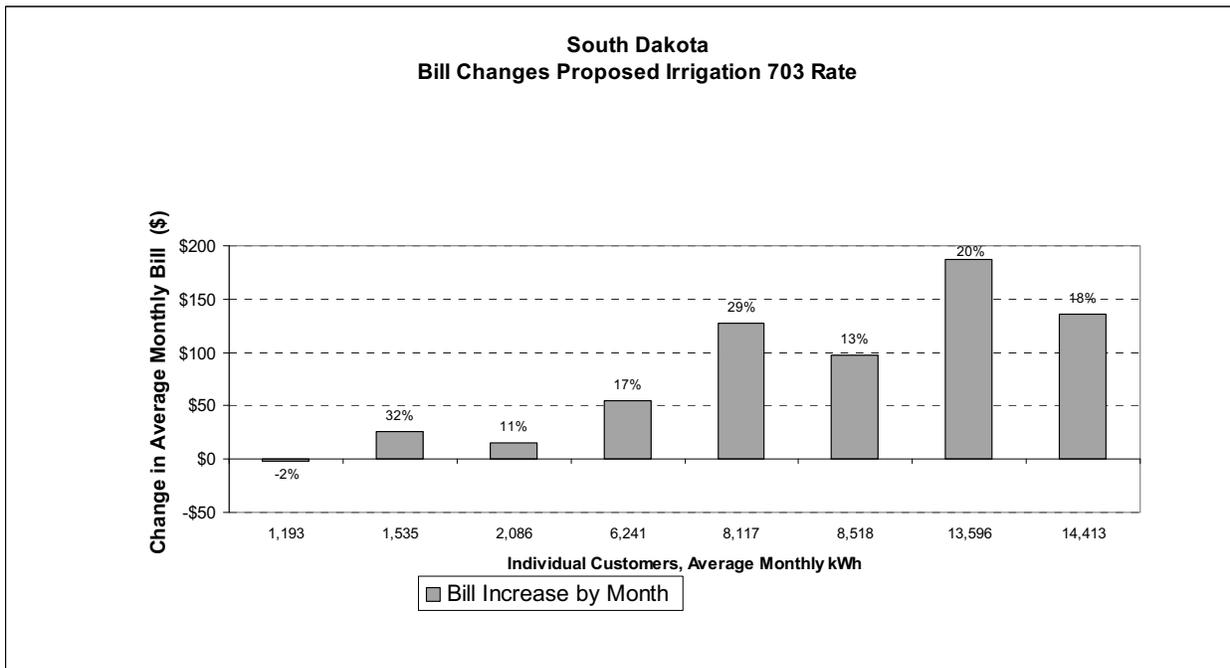
	Cust. Charge per month	Monthly Min. Bill per month	Facilities Charge per annual max. kW (min. 80)	Summer	Energy Charge per kWh	Winter	Demand Charge per HP	Summer	Winter						
<b>SECONDARY</b>															
<b>Current Rate</b>	\$0.00		Customer Specific	0.05235 Plus \$.45 per hp		0.05235 Plus \$.45 per hp									
<b>OPTION 1</b>															
Rate 2 Option 1 - Seasonal energy with Capacity, Customer-specific facilities charge, Customer Charge	\$1.00	Customer + Facilities	Customer specific	\$0.07096		\$0.05294									
				Declared Peak	Intermediate	Off-Peak	Declared Peak	Intermediate	Off-Peak						
<b>Current Rate</b>	\$0.00	Customer Specific		\$ 0.10198	\$ 0.07640	\$ 0.04304	\$ 0.10198	\$ 0.07640	\$ 0.04304	na	na	na	na	na	na
<b>OPTION 2</b>															
Rate 2 Option 2 - TOU energy including Capacity, Customer Charge, Customer-specific facilities charge	\$5.00	Customer + Facilities	Customer Specific	\$0.20266	\$0.07631	\$0.03706	\$0.12285	\$0.07168	\$0.03794	na	na	na	na	na	na
				Declared Peak	Intermediate	Off-Peak	Declared Peak	Intermediate	Off-Peak	Declared Peak	Intermediate	Off-Peak	Declared Peak	Intermediate	Off-Peak
<b>Marginal Costs</b>	\$23.56			\$0.12751	\$0.08709	\$0.04543	\$0.09757	\$0.08747	\$0.04651						
				\$0.24848	\$0.09357	\$0.04543	\$0.15063	\$0.08789	\$0.04651						

\*Current Rates Include FCA

1 Q. WHAT ARE THE BILL IMPACTS FROM YOUR PROPOSED IRRIGATION RATES?  
 2 A. As the figures below show, bill impacts vary among irrigation customers. This is due to the  
 3 fact that consumption levels and usage patterns (number of months of irrigation) vary widely  
 4 among these customers.

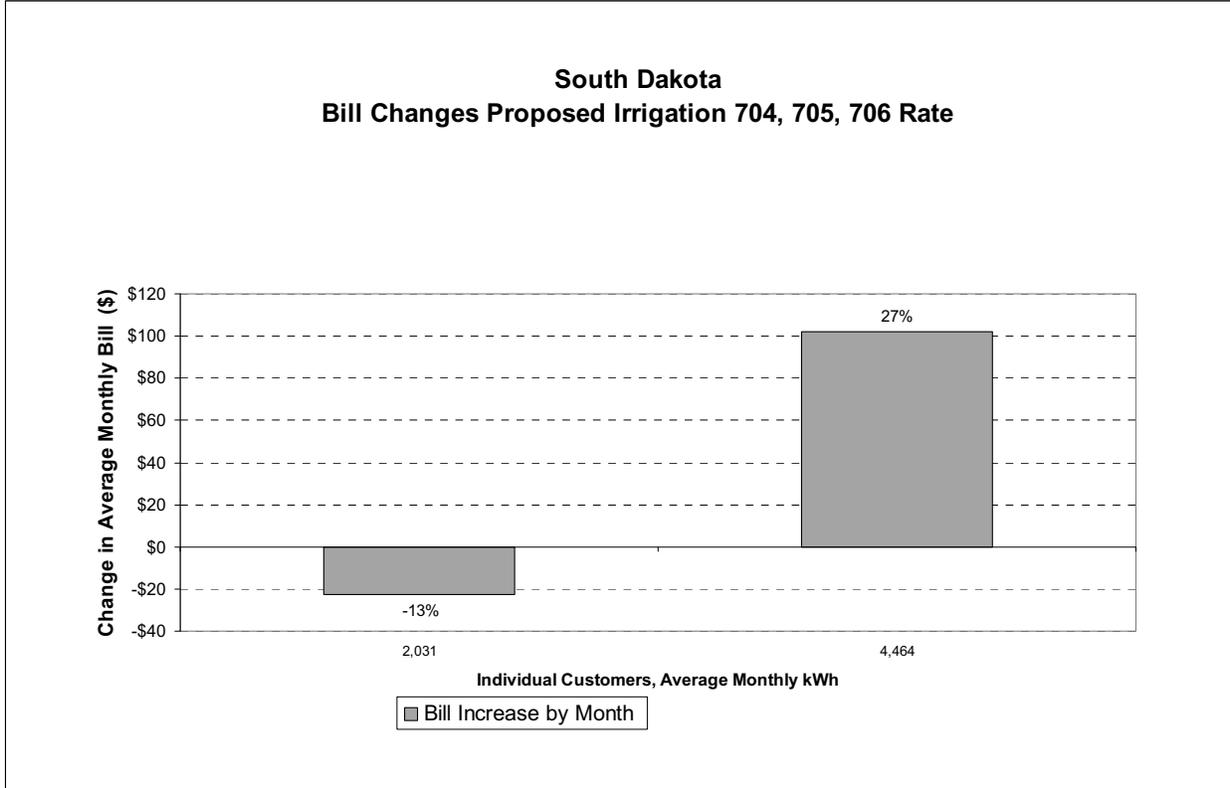
5 Especially in the case of customers on Option 2, these bill impacts assume these  
 6 particular Irrigation customers would not change their usage patterns. Specifically, declared  
 7 peak prices were utilized in this analysis which may include customer usage that did not  
 8 respond to the declared price signal. This does not imply the customers would not respond,  
 9 but it does simplify the analysis – foregoing potentially complicated assumptions of customer  
 10 reductions during these declared hours. Customers can certainly be advised by Otter Tail  
 11 Energy Management personnel to determine which Irrigation rate would provide them the  
 12 best value for their operating needs.

13  
 14 **Figure 11: Bill Impacts - Irrigation Option 1**



15  
 16

1 **Figure 12: Bill Impacts - Irrigation Option 2**



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3

4 Q. WHAT RATE DESIGNS ARE YOU PROPOSING FOR THE LIGHTING SERVICE  
5 CLASS

6 A. There are two rates in the Outdoor Lighting Class; Outdoor Lighting and Outdoor Lighting –  
7 Energy Only.

8

9 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE OUTDOOR  
10 LIGHTING RATE.

11 A. My proposal introduces proportional increased charges for all lighting fixtures. No lighting  
12 fixture offering changes were made to the rate schedule. The Sign Lighting Service (747)  
13 will be cancelled and the service moved to the Outdoor Lighting – Energy Only Rate (748-  
14 749). This is described later in my testimony.

1 Table 13 shows a summary of the Outdoor Lighting services and their current and  
 2 proposed revenues and percent increase. Please refer to the summary comparisons as shown  
 3 in Statement I.

4  
 5 **Table 13: Outdoor Lighting**  
 6

STREET AND AREA LIGHTING				
		<u>Present Rate 2006</u>		<u>Proposed Rate</u>
		\$383,524		\$460,229
FLOOD LIGHTING				
		<u>Present Rate</u>		<u>Proposed Rate</u>
		\$82,338		\$98,805
CLOSED NON-STANDARD LIGHTING FACILITIES				
		<u>Present Rate</u>		<u>Proposed Rate</u>
		\$32,781		\$39,337
	Total:	Present	\$497,125	Proposed
				\$596,550

7  
 8  
 9 Q. WHAT ARE THE BILL IMPACTS OF THE PROPOSED OUTDOOR LIGHTING RATE?

10 A. The bill impacts for each lighting fixture are the same, 20 percent.

11  
 12 Q. WHAT ARE THE FEATURES OF AND RATIONALE FOR THE PROPOSED  
 13 OUTDOOR LIGHTING-ENERGY ONLY RATE (748 AND 749)?

14 A. My proposal introduces increased charges for the dusk to dawn energy service. The  
 15 Customer Charge has increased but is still under marginal customer costs. Instead of  
 16 requiring a facilities charge, the energy charge per kWh hour was raised slightly above  
 17 marginal energy costs to meet the class revenue requirement. As mentioned earlier in my  
 18 testimony, the Sign Lighting Service (747) customers will be moved to this rate. This change  
 19 improves the organization of dusk to dawn energy services offered by the Company.  
 20

1 **Table 14: Comparison of Current and Proposed Outdoor Lighting and Marginal Costs**

	<b>Customer Charge per month</b>	<b>Monthly Minimum Bill per month</b>	<b>Facilities Charge per month</b>	<b>Energy Charge per kWh</b>
<b>Metered</b>				
Current Rate	\$1.40	\$0.00	\$0.00	0.06177
Proposed Rate	\$2.00	\$2.00	\$0.00	0.07179
Marginal Costs	\$4.26		\$4.26	\$0.06906
<b>Non-Metered</b>				
Current Rate	Connected kW x	\$20.15		
Proposed Rate	Connected kW x	\$24.53		

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Q. WHAT ARE THE BILL IMPACTS OF THE PROPOSED OUTDOOR LIGHTING-ENERGY ONLY RATE.

A. The overall bill impacts for the class is 20 percent.

Q. WHAT RATE DESIGNS ARE YOU PROPOSING FOR THE OTHER PUBLIC AUTHORITY SERVICE CLASS

A. There are two rates in the Other Public Authority Class: Municipal Pumping Service and Civil Defense – Fire Siren Service.

Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE MUNICIPAL PUMPING SERVICE.

A. The recommended municipal pumping rate eliminates declining blocks, introduces seasonal differences in energy charges, imposes a flat facilities charge per month and increases the

1 monthly minimum bill. This rate improves equity by recovering a portion of local facilities  
 2 costs on a fixed basis, reducing the subsidy from large to small customers. The recommended  
 3 energy charges are still below marginal cost to close the revenue gap, and result in charges  
 4 that fall in between the current declining block structure.  
 5

6 **Table 15: Current and Recommended Municipal Pumping Rates and Marginal Costs**

	Customer \$ per month	Minimum Bill \$ per month	Facilities Charge \$ per month	Summer \$ per kWh per month	Winter \$ per kWh per month	All Year
<b>Current Rate</b>	na	\$3.60 per metering pt.	na		1st 2500: Next 1500: Excess:	\$0.07416 \$0.05768 \$0.04830
<b>Rate 3 Seasonal Energy, Facilities Charge</b>						
	Secondary	\$4.00	Cust + Fac	\$4.00	\$0.06599	\$0.06020 all Energy
	Primary	\$4.00	Cust + Fac	\$2.68	\$0.06570	\$0.05991 all Energy
<b>Marginal Costs</b>						
		\$15.91	\$64.91 \$42.57			
All Season				Secondary Primary	Energy & Demand \$0.10545 \$0.10498	\$0.09619 \$0.09573

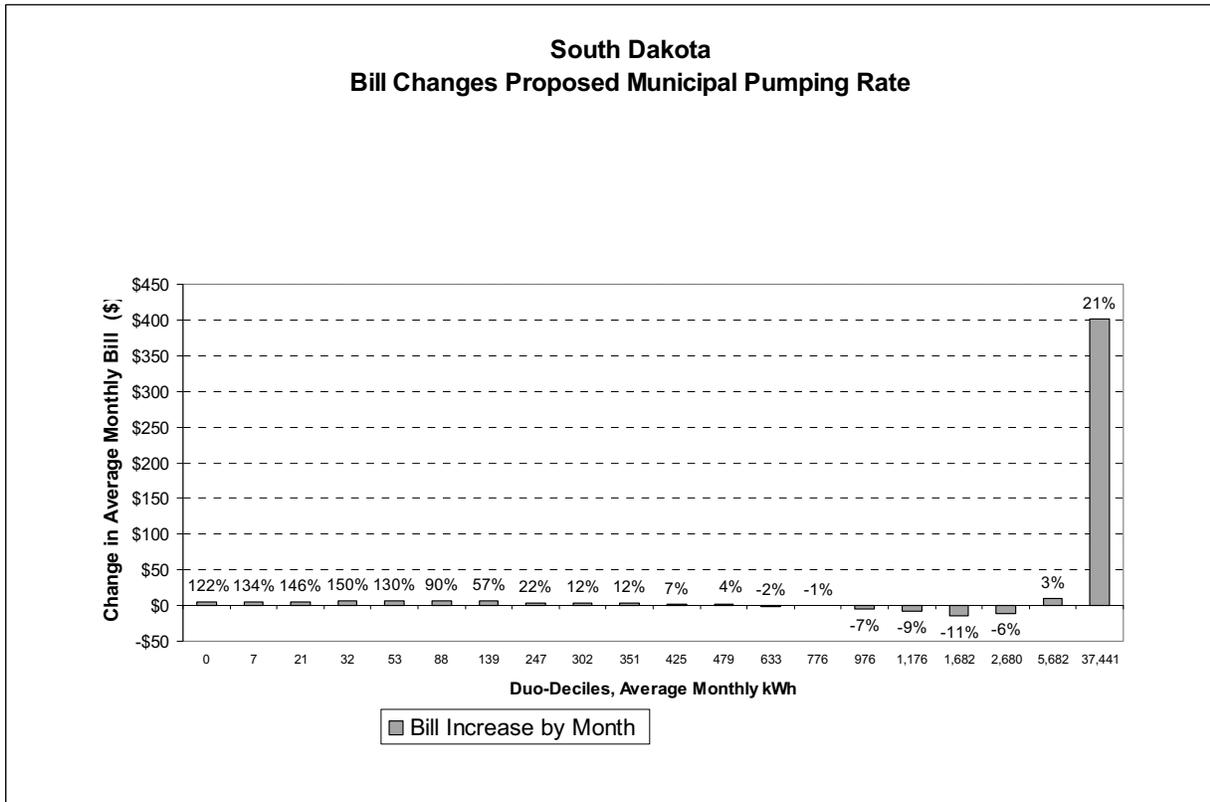
\*Current Rates Include FCA

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9 Q. WHAT ARE THE BILL IMPACTS OF YOUR RECOMMENDED MUNICIPAL  
 10 PUMPING RATE?

11 A. As Figure 13 shows, small consumers on this rate would face bill increases that are small  
 12 in dollar terms but large in percentage terms. About 25% of the customers would see bill  
 13 reductions. The 5 percent of municipal pumping customers with the largest usage (last two  
 14 duo-deciles) would see an average increase in monthly bills of 21 percent because they  
 15 would lose the benefit of the below-cost tail block price in the current rate.

1 **Figure 13: Municipal Pumping Bill Impacts from Recommended Rate**



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Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE CIVIL DEFENSE-FIRE SIREN SERVICE RATE.

A. The proposed Civil Defense-Fire Siren Rate introduces a slight decrease in charges for the charge per horsepower. The proposed Customer Charge is \$1.00 per month which applies to the Monthly Minimum Bill provision. All rate components were designed below marginal costs. A monthly minimum bill was developed to cover distribution facility charges.

1 **Table 16: Civil Defense-Fire Sire Service**

2

	Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge per month	Charge per HP
<b>SECONDARY</b>				
Current Rate	\$0.00	\$0.00	\$0.00	\$0.60
Proposed Rate	\$1.00	Customer Charge	\$0.00	\$0.51184
Marginal Costs	\$3.67	Summer Energy + Capacity per a kWh	\$0.12647	
		Winter Energy + Capacity per a kWh	\$0.10139	

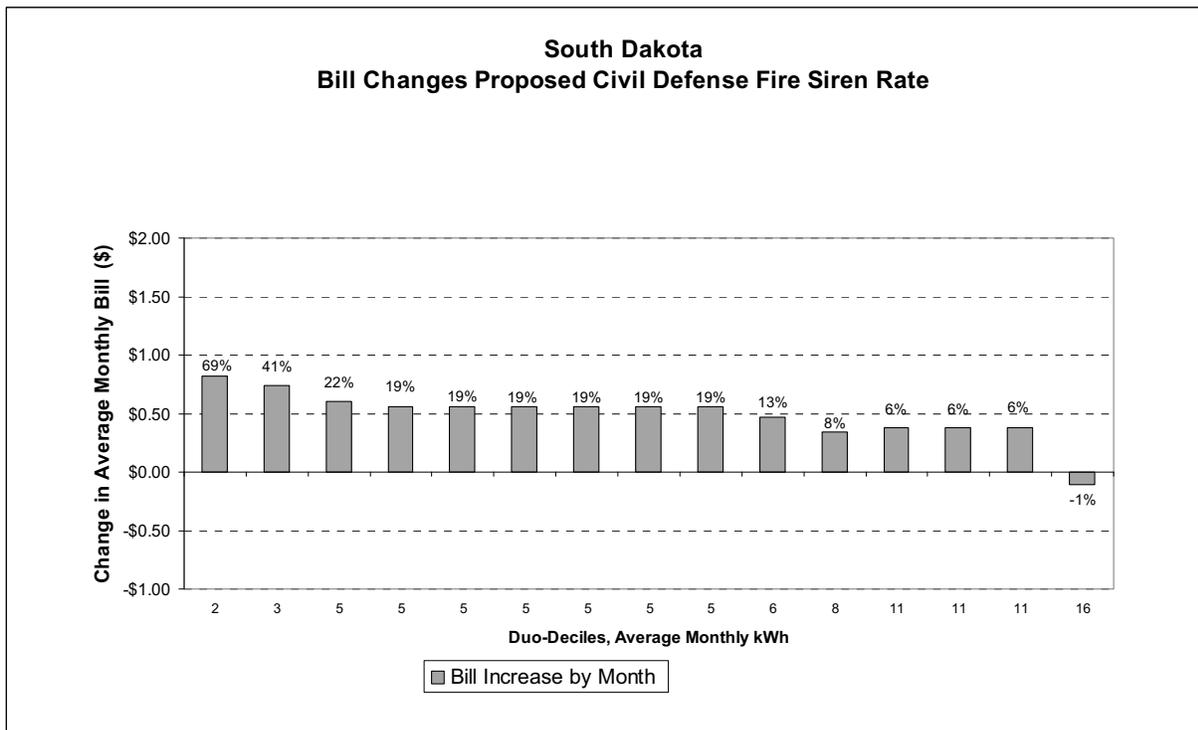
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5 Q. WHAT ARE THE BILL IMPACTS OF THE PROPOSED CIVIL DEFENSE-FIRE SIREN  
6 SERVICE RATE SCHEDULE?

7 A. As Figure 14 shows, the bill impacts for nearly all customers will see an average increase of  
8 less than \$1.00 per month. The largest customers in last duo-decile will see a decrease due to  
9 the reduction in the charge per horsepower.

10 **Figure 14: Civil Defense-Fire Sire Service Bill Impacts**



11

1 Q. WHAT RATE DESIGN ARE YOU PROPOSING FOR THE WATER HEATING  
 2 SERVICE CLASS

3 A. There is only one rate in the Water Heating Class: Water Heating – Controlled Service Rider.  
 4

5 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE WATER HEATING-  
 6 CONTROLLED SERVICE RIDER.

7 A. As Table 17 shows, my proposal slightly reduces the customer charge, adds a facilities  
 8 charge and calculates the Minimum Bill based on the Customer charge plus the facilities  
 9 charge, and substitutes seasonal energy charges which are set closer to marginal cost. The  
 10 marginal costs of providing service to customers on this rate are lower than the marginal cost  
 11 for standard rates because OTP controls the water heaters during high-cost periods.  
 12

13 **Table 17: Current and Proposed Water Heating-Controlled Service Rider and Marginal**  
 14 **Costs**

	Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge per month	Energy Charge per kWh	
				All Year	Summer Winter
Current Blocked Non-seasonal Plus Customer Charge All Energy	\$1.60	\$1.60	\$0.00	\$0.04676	
Rate 2 Seasonal Energy Flat Facilities	\$1.00	Cust. + Facilities	\$1.00	\$0.06362	\$0.06214
Marginal Costs	\$7.07		\$5.69	\$0.07796	\$0.07614

\*Current Rates Include FCA

15  
 16  
 17 My proposal also includes the addition of the Water Heating Credit service. This service  
 18 was removed from a number of our current rates and relocated to this rider. The Water  
 19 Heating Credit is being relocated from these rates and located in this rider for better  
 20 organization of the water heating services offered by OTP.

21 The Water Heating Credit was developed based on the annual savings between the cost of  
 22 a water heater on the proposed Residential Service and the proposed Water Heating –  
 23 Controlled Service Rider and then developed into a monthly credit.

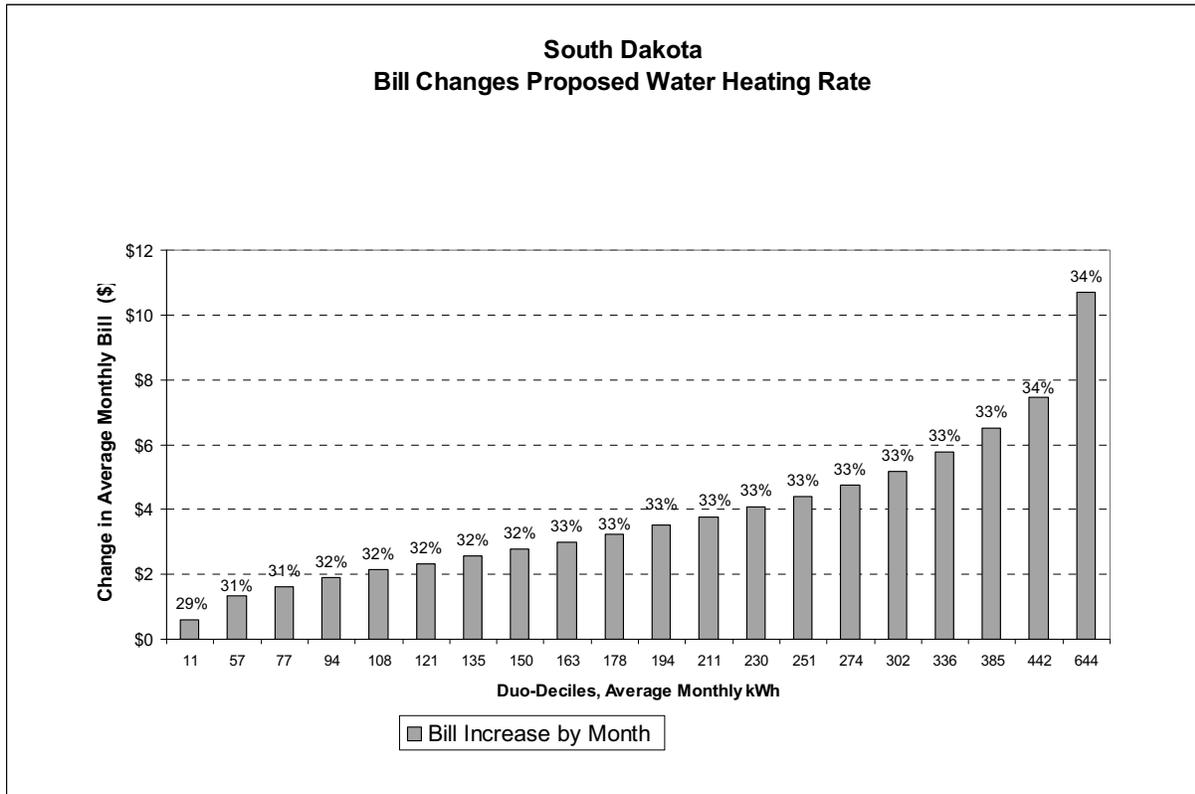
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The Water Heating Credit is essentially a direct load control program similar to direct load control of central air conditioners. In exchange for allowing the Company to interrupt a customer’s water heating service, the Company pays the customer in the form of a bill credit. The proposal increases the credit from \$2 to \$4 per month.

Q. WHAT ARE THE BILL IMPACTS OF THE PROPOSED WATER HEATING-CONTROLLED SERVICE RIDER?

A. Figure 15 shows customers below the bill impacts from the proposed rate are modest—with the highest average monthly increase less than \$6.00 for 85 percent of customers and the remaining 15 percent of customers will see an increase ranging from approximately over \$6 to \$11 per month.

**Figure 15: Bill Impacts from Proposed Water Heating –Controlled Service Rider**



15  
16

1           The bill impacts for the Water Heating Credit service will reduce the customers' bill from  
2           the current \$2 to \$4 per month.

3  
4   Q.   WHAT RATE DESIGNS ARE YOU PROPOSING FOR THE INTERRUPTIBLE  
5       SERVICE CLASS?

6   A.   There are four current rates in the Interruptible Service Class: Controlled Service –  
7       Interruptible Load (CT Metering) Rider and Controlled Service – Interruptible Load (Self-  
8       contained metering) and two Standby Service rate schedules (Less than 100 kW and Equal  
9       to or Greater than 100 kW). The current Standby rate schedules will be replaced with a  
10      completely new rate design concept described later in my testimony.

11          I am proposing a new option for Controlled Service – Interruptible Load (CT Metering –  
12       Option B). This option will allow motor load up to 5 percent of the metered maximum  
13       demand. This option is in contrast to the current option (Option A) which only allows motor  
14       load, used to distribute the heat, to be connected separately to the appropriate General  
15       Service (firm) rate schedule. By adding this new option, customers will have more  
16       flexibility in how they configure their motor load which distributes the heat.

17  
18   Q.   PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE CONTROLLED  
19       SERVICE-INTERRUPTIBLE LOAD (CT METERING) RIDER.

20   A.   The proposed Rider 170 reduces the current customer charge and introduces seasonal  
21       energy charges that better reflect marginal cost. A facilities charge is added on a \$/kW  
22       basis to better reflect these costs by customer size. The penalty rate for energy consumed  
23       during control periods is based on the total marginal cost over a year and separated into  
24       summer and winter seasons. The penalty rate per kWh was calculated based on the hourly  
25       marginal costs when usage would be controlled. Fundamentally, the penalty rate charges  
26       customers for unauthorized use during control periods.

27

1 **Table 18: Current and Proposed – Option A Controlled Service-Interruptible Load (CT**  
 2 **Metering) Rider 170 and Marginal Costs**

		Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge	Energy Charge per kWh	
					Summer	Winter
SECONDARY						
Current Rate		\$5.00			\$0.02400	\$0.02400
Rate 3	Seasonal Energy, Flat Facilities	\$4.00	Customer + Facilities charge			
				All kWh	\$0.03863	\$0.03714
				Penalty kWh rate 199	\$0.42614	\$0.15769
				<b>per annual max. kW per month</b>		
				\$0.08		
				\$0.08		
Marginal Costs		\$34.17	<300 kW >=300 kW	\$0.79 \$0.46	\$0.0777	\$0.0747

3  
4

5 **Table 19: Proposed Option B - Controlled Service-Interruptible Load (CT Metering) Rider**  
 6 **170 and Marginal Costs**

		Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge	Energy Charge per kWh		Demand Charge per kW	
					Summer	Winter	Summer	Winter
SECONDARY								
Rate 1	Seasonal Energy, kW Facilities All kWh	\$5.00	Customer + Facilities charge					
				<b>per annual max. kW per month</b>				
				\$0.08				
				per kW	\$0.04132	\$0.03973	\$7.28	\$2.94
Marginal Costs		\$34.17	<300 kW >=300 kW	\$0.79 \$0.46	\$0.07771 (Plus 5% firm energy charge)	\$0.07472	SD LGS Sec. kW Charge	

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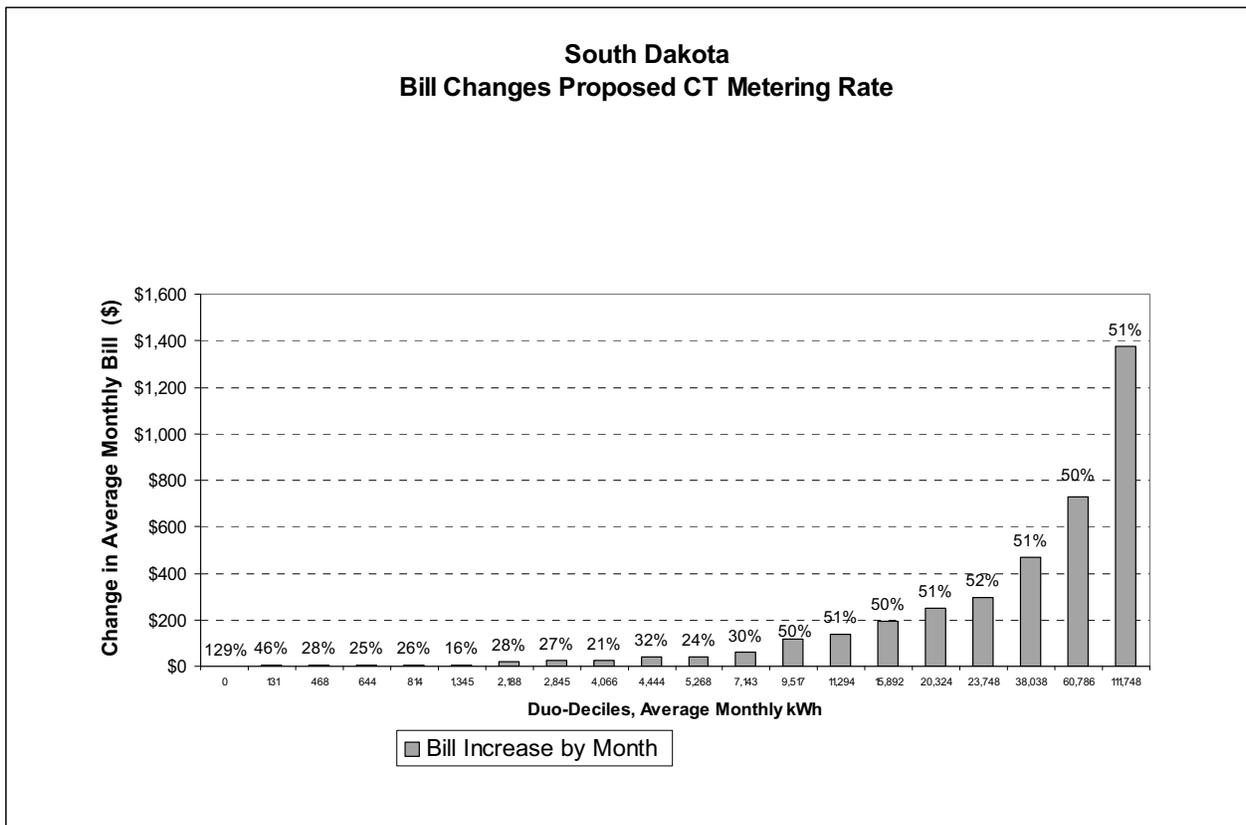
9 Q. WHAT ARE THE BILL IMPACTS OF THE PROPOSED CONTROLLED  
 10 INTERRUPTIBLE LOAD (CT METERING) RIDER – OPTION A AND THE NEW  
 11 OPTION B?

12 A. The bill impacts, from the proposed rate (Option A), show that half of the customers will see  
 13 an increase of less than \$40 a month. The first two duo-deciles show large percent increases,  
 14 which are under \$3. The larger customers will see increases of 30-52%.

1 As I described earlier in my testimony, much of the increase for this rate relates to the  
 2 fact that this service does not currently include an FCA. Therefore, these customers have not  
 3 paid for increases in fuel and purchase power costs that have occurred since 1987.  
 4 Consequently, this relatively large increase is primarily due to resetting the cost of fuel for  
 5 the rate.

6

7 **Figure 16: Option A Bill Impacts from Proposed Controlled Service-Interruptible Load**  
 8 **(CT Metering) Rider**



9

10

11 Since Controlled Service-Interruptible Load (CT Metering) Rider Option B is a new service,  
 12 no impacts were calculated.

13

1 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE CONTROLLED  
 2 SERVICE-INTERRUPTIBLE LOAD (SELF-CONTAINED METERING) RIDER.

3 A. My proposal for this rate reduces the customer charge, adds a flat monthly facilities charge,  
 4 eliminates the declining block structure, and increases the seasonal energy charges as well as  
 5 the seasonal differential in those charges to better reflect marginal costs. The penalty for  
 6 energy used during a control period is intended to deter customers from unauthorized use  
 7 during control periods.

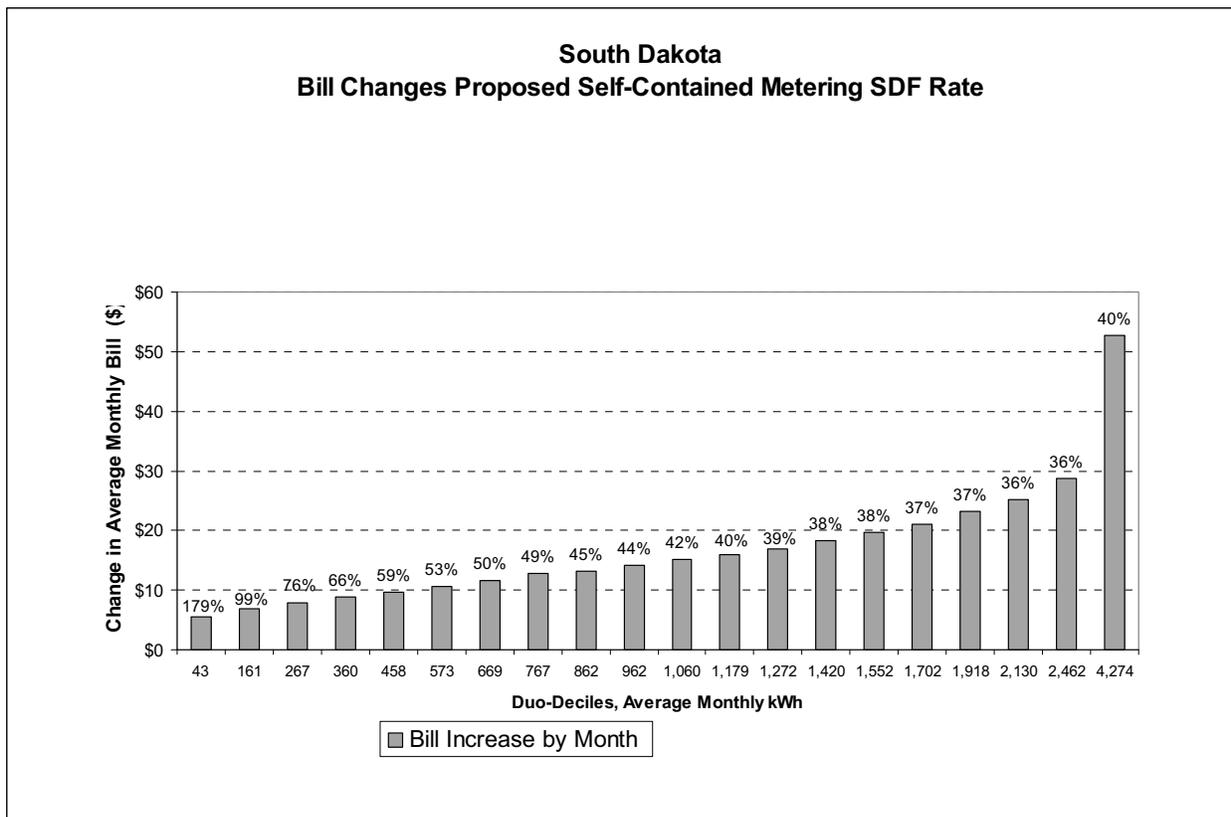
8  
 9 **Table 20: Current and Proposed Controlled Service-Interruptible Load (Self-Contained)**  
 10 **Rider and Marginal Costs**

SECONDARY	Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge per customer per month		Energy Charge per kWh	
					Summer	Winter
Current Rate	\$1.75		First 5,000 Excess		\$0.03300	\$0.03000
			First 1,500 Excess		\$0.03150	\$0.02850
Rate 1 Seasonal Energy Fixed Facilities All kWh	\$2.00	Customer + Facilities charge	Fixed Facilities	\$5.00	\$0.04470	\$0.04215
			Penalty kWh		\$0.4227	\$0.1637
Marginal Costs	\$7.80		<5000 kWh in all months	\$11.38	\$0.0798	\$0.0753
			> 5000 kWh in any month	\$44.92		

11  
 12  
 13  
 14 Q. WHAT ARE THE BILL IMPACTS OF THE PROPOSED CONTROLLED  
 15 INTERRUPTIBLE LOAD (SELF-CONTAINED) RIDER?

16 A. As Figure 17 shows, the percentage bill impacts are very uniform across levels of  
 17 consumption except for the first two duo-deciles with high percentage increases/low bill  
 18 impacts due to higher minimum bill charges. About 75% of the customers have bill impacts  
 19 under \$20/month. The remaining 25% of the customers will see increases of between \$20  
 20 and \$55 per month. Again, the relatively large increase for this rate is related to the fact that  
 21 it does not currently have an FCA. As explained in the previous rate discussion, most of this  
 22 increase is the result of updating the costs of fuel and purchased power for the rate.

1 **Figure 17: Bill Impacts from Proposed Controlled Service-Interruptible Load (Self-**  
 2 **Contained) Rider**



3  
4

5 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE STANDBY RATE.

6 A. My proposal for this rate introduces a new design with many improvements. The new design  
 7 sends more efficient price signals for the customers who choose this service. The basis of the  
 8 updated design utilizes the proposed Large General Service-Time of Day Rate.

9 Unlike the current Standby Service rate, the proposed Standby Service rate provides three  
 10 services under one rate schedule. These services are Backup, Scheduled Maintenance, and  
 11 Supplemental Service. Below are the definitions of these services:

- 12 ○ Backup Services is the energy and demand supplied by the utility during unscheduled
- 13 outages of the Customer's generator.
- 14 ○ Scheduled Maintenance Service is the energy and demand supplied by the utility
- 15 during scheduled outages.
- 16 ○ Supplemental Service is the energy and demand supplied by the utility in addition to
- 17 the capability of the on-site generator.

18

A summary of proposed changes are shown below.

- The rate offers two additional levels of service voltage options – Primary and Transmission
- The rate has season changes: Summer from 6 months to 4 months, Winter from 6 months to 8 months.
- The rate adds a shoulder period for improved pricing signals
- The rate provides an additional choice for Backup Service customers to choose a Firm or Non-Firm option to better fit the customer’s expected operation schedule
- An increase in overall hours for Standby from 800 hours per season (1600 hours annual) to the following hours for option A) Firm Service – 8400 annual hours (only 360 on peak hours allowed per year), and B) Non-Firm Service of 5700 annual hours (i.e. no on-peak hours of operation allowed).

**Table 21: Comparison of Current and Proposed Standby Service and Marginal Costs**

	Cust. Charge per month	Monthly Min. Bill per month	Facilities Charge per annual max. kW (min. 80)	Energy Charge per kWh						Demand Charge per kW					
				Summer			Winter			Summer			Winter		
				PK	SH	OP	PK	SH	OP	PK	SH	OP	PK	SH	OP
<b>SECONDARY</b>															
<b>LGS TOD with Customer and Facilities Charges</b>	\$199.00	\$325 + Facilities	\$0.30	\$0.07971	\$0.06110	\$0.03639	\$0.07153	\$0.05818	\$0.04107	\$0.49	\$0.00	\$0.00	\$0.32	\$0.00	\$0.00
		Reserve Charge per kW		\$0.8507			\$0.0970			\$0.4908			\$0.3219 \$ per kW per day		
Marginal Costs	\$351.89		\$0.79	\$0.13276	\$0.10176	\$0.06061	\$0.11914	\$0.09690	\$0.06840	\$0.49	\$0.00	\$0.00	\$0.32	\$0.00	\$0.00
<b>PRIMARY</b>															
<b>LGS TOD with Customer and Facilities Charges</b>	\$199.00	\$325 + Facilities	\$0.15	\$0.07937	\$0.06085	\$0.03627	\$0.07118	\$0.05791	\$0.04089	\$0.49	\$0.00	\$0.00	\$0.32	\$0.00	\$0.00
		Reserve Charge per kW		\$0.8459			\$0.0963			\$0.4868			\$0.3198 \$ per kW per day		
Marginal Costs	\$400.99		\$0.29	\$0.13219	\$0.1013	\$0.06041	\$0.11856	\$0.09645	\$0.06810	\$0.49	\$0.00	\$0.00	\$0.32	\$0.00	\$0.00
<b>TRANSMISSION</b>															
<b>LGS TOD with Customer and Facilities Charges</b>	\$199.00	\$325 + Facilities	\$0.00	\$0.07726	\$0.05933	\$0.03555	\$0.06908	\$0.05626	\$0.03980	\$0.36	\$0.00	\$0.00	\$0.29	\$0.00	\$0.00
		Reserve Charge per kW		\$0.82			\$0.29			\$0.36			\$0.29 \$ per kW per day		
Marginal Costs	\$400.99		\$0.00	\$0.1287	\$0.09881	\$0.05921	\$0.1151	\$0.0937	\$0.0663	\$0.36	\$0.00	\$0.00	\$0.29	\$0.00	\$0.00

Q. WHAT ARE THE BILL IMPACTS FROM YOUR PROPOSED STANDBY SERVICE RATES?

A. No impacts were developed since there are no customers currently taking this service.

1 Q. WHAT RATE DESIGNS ARE YOU PROPOSING FOR THE DEFERRED LOAD  
2 SERVICE CLASS?

3 A. There are two rates in the Deferred Load Service Class: Controlled Service – Deferred Load  
4 Rider and Fixed Time of Delivery Rider.

6 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE DEFERRED LOAD  
7 SERVICE RIDER.

8 A. The proposed Deferred Load Service Rider increases the customer charge to \$3.00 per month  
9 and adds a flat facilities charge. Seasonally-differentiated energy charges were added and  
10 adjusted to about 66 percent of marginal costs.

11 This proposal better reflects the marginal costs incurred to serve customers on this rider  
12 compared to the current charges. The penalty for energy used during a control period is  
13 intended to deter for unauthorized use during control periods.

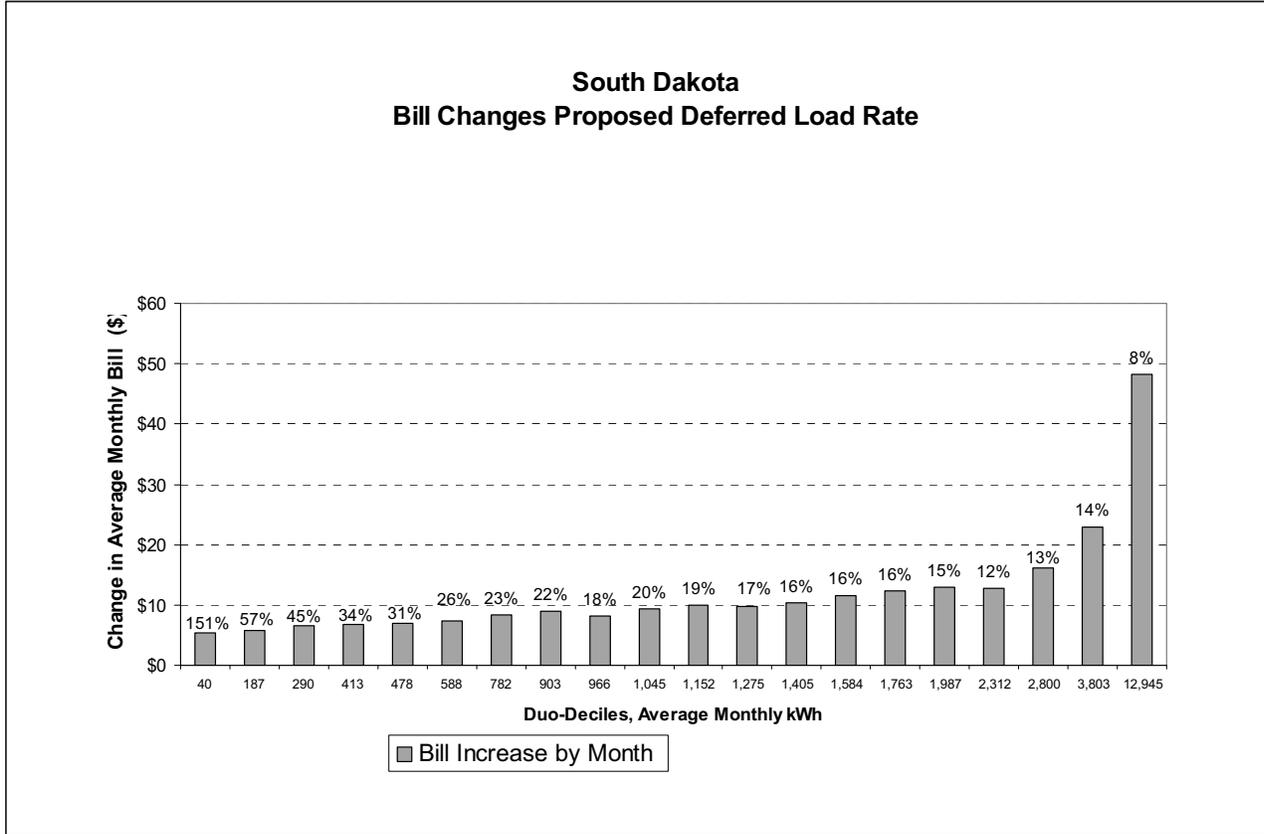
15 **Table 22: Current and Proposed Deferred Load Rider Rates and Marginal Costs.**

	Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge per month	Energy Charge per kWh		
				All Year	Summer	Winter
Current Seasonal Energy and Customer Charge No Facilities Charge	\$1.75	\$1.75	\$0.00	\$0.04449		
Rate 3 Seasonal Energy and Customer Charge Facilities based on Flat Fixed Charge	\$3.00	Customer Charge+Facilities	\$4.00		\$0.04932	\$0.04786
			Penalty kWh		\$0.38956	\$0.15758
Marginal Costs	\$17.23		<5000 kWh in all months >5000 kWh in any month	\$11.38 \$44.92	\$0.07783	\$0.07553

19 Q. WHAT ARE THE BILL IMPACTS OF PROPOSED DEFERRED LOAD RIDER?

20 A. As Figure 19 shows, 80% of the customers on this rider, those with up to an average of about  
21 2800 kWh’s of monthly consumption, will see bill increases of less than \$20 per month. The  
22 remaining 10 percent of the customers with larger consumption will see average monthly bill  
23 increases of 8 to 14 percent.

1 **Figure 19: Bill Impacts from Proposed Deferred Load Rider**



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Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE FIXED TIME OF DELIVERY RIDER.

A. The proposed Fixed Time of Delivery rider introduces small customer charges and changes to the facilities charges as compared to the current rate. This allows the seasonal energy charges to be set closer to the marginal cost expected in the hours when customers will receive service under this rider.

Additionally, the proposal moves the hours of operation back one hour from the current 11 pm - 7am to the proposed 10 pm - 6 am. This change will better align with the new costing periods developed by NERA as described in Dr. Parmesano’s testimony.

1 **Table 23: Current and Recommended Fixed Time of Delivery Rider and Marginal Costs**

2

	Customer Charge per month	Monthly Minimum Bill per month	Facilities Charge per Customer per month	Energy Charge per kWh
<b>SECONDARY</b>				
<b>Current Rate</b>				
Secondary < 100 kW (301)		Facilities Charge	\$4.00	does not include fuel adjustment \$0.02900
Secondary > 100 kW (302)			\$8.75	\$0.02500
Primary (303)			\$83.00	\$0.02150
<b>Seasonal Energy with a Fixed Facility Charge</b>				
2 Self-Contained Metered (301)	\$1.00	Cust+Fac	\$3.00	<b>Summer</b> \$0.02970 <b>Winter</b> \$0.03145
CT Metered (302)	\$1.50		\$19.00	\$0.02970 \$0.03145
			Penalty kWhs	\$0.12174 \$0.10283
Primary (303)	\$3.00		\$9.00	\$0.02959 \$0.03132
			Penalty kWhs	\$0.12163 \$0.10270
<b>Marginal Costs</b>				
Secondary < 100 kW (301)	\$10.82		per kVA \$0.98	\$0.04792 \$0.05073
Secondary > 100 kW (302)	\$17.23		\$0.63	\$0.04792 \$0.05073
Primary (303)	\$34.17		\$0.28	\$0.04773 \$0.05053

3

4

5 Q. WHAT ARE THE BILL IMPACTS OF THE PROPOSED FIXED TIME OF DELIVERY  
6 RIDER?

7 A. As Figure 20 shows for customers taking service using self-contained metering, bill impacts  
8 from the proposed Fixed Time of Delivery Rider are under \$10 per month for all but the ten  
9 percent of customers with the highest average monthly use.

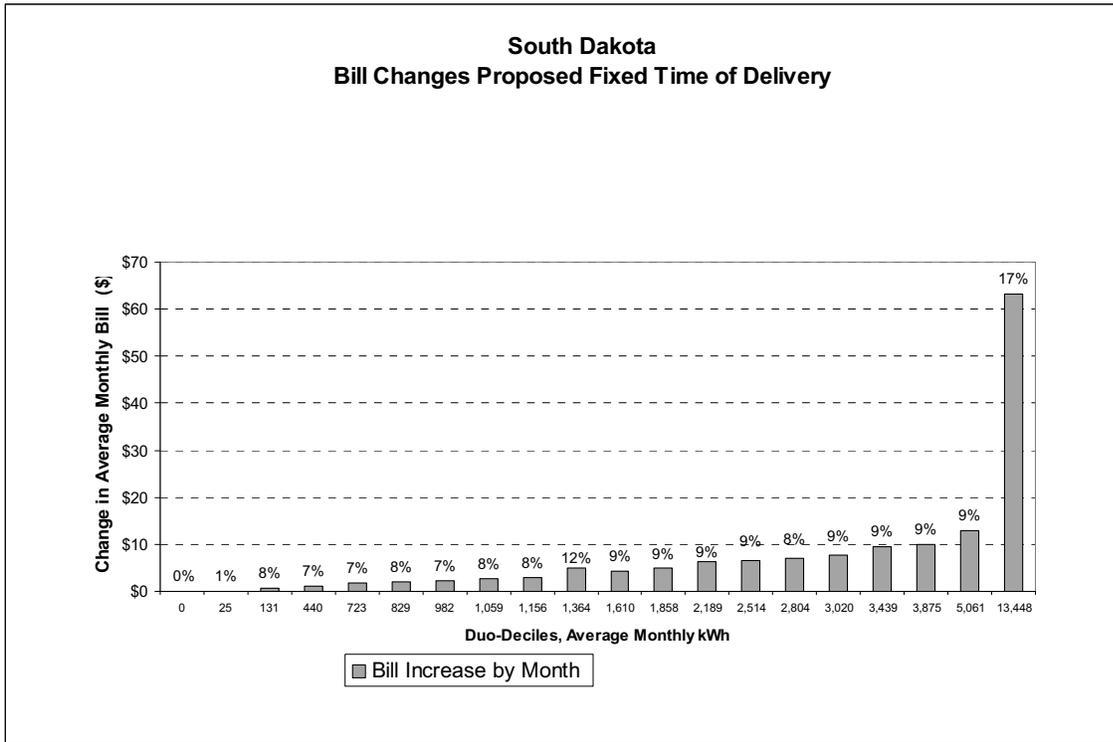
10 As Figure 21 shows for customers taking service using current-transformer (CT)  
11 metering, bill impacts from the proposed Fixed Time of Delivery Rider are higher than the  
12 self-contained metering customers. This is primarily due to increases in the energy and  
13 facility charges, which better follow the cost structures. Smaller customers that move up to  
14 an average under 500 kWh per month particularly see large percentage increases, which

1 translates to increases of about \$20 or less on a monthly basis. The remaining 85% of the  
2 customers will see an average monthly impact of between \$20 and \$70.

3

4 **Figure 20: Bill Impacts from Proposed Fixed Time of Delivery (Self-Contained Meter)**

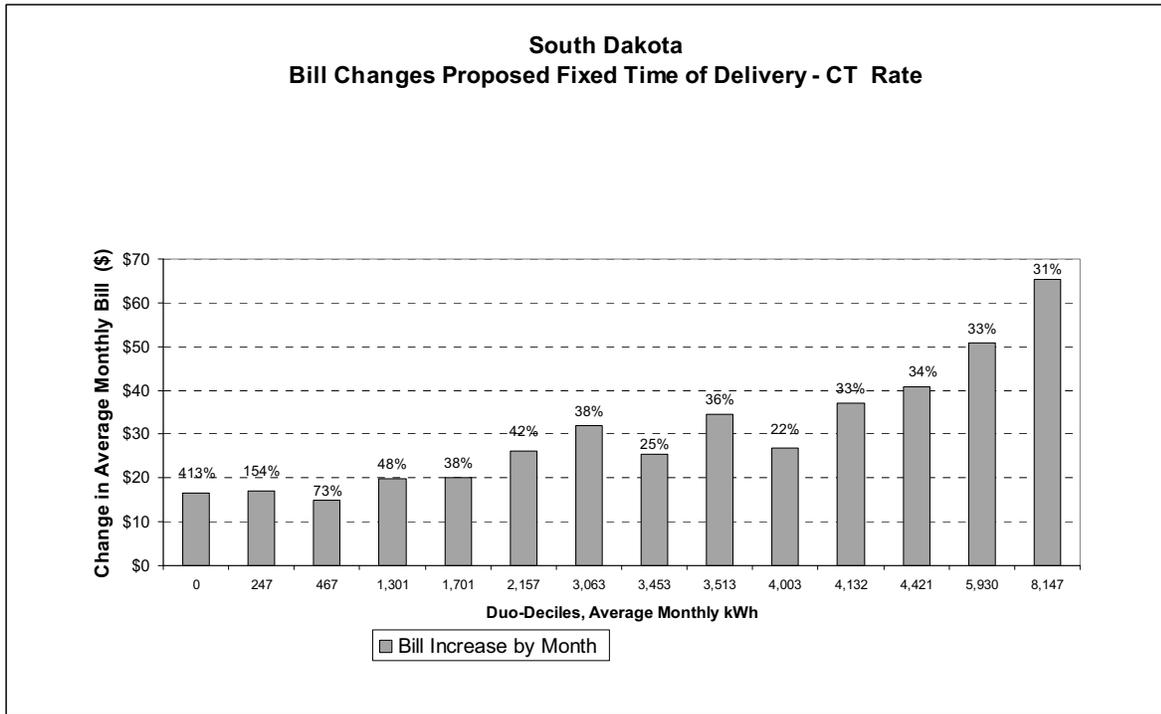
5 **Rider**



6

7

1 **Figure 21: Bill Impacts from Proposed Fixed Time of Delivery (CT Meter) Rider**



2

3

4 Q. ARE THERE ANY OTHER RATE DESIGN PROPOSALS?

5 A. Yes. I will also cover the rate design proposals for the following riders: Real-Time Pricing  
6 Rider, Large General Service Rider (new service), Air Conditioning Control Rider (new  
7 service), Renewable Energy Rider, and Released Energy Rider.

8

9 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE REAL-TIME  
10 PRICING RIDER.

11 A. My proposal increases the administrative charge from \$180 per month to \$199 per month.

12

13 Q. WHAT ARE THE BILL IMPACTS OF THE PROPOSED REAL-TIME PRICING RIDER?

14 A. The overall bill impacts for any single Real Time Pricing customer would be difficult to  
15 predict as there are many variables relating to bill impacts, including but not limited to:  
16 customer operations, energy use decisions and the pricing signals sent to the customer.

1        However, one bill impact that can be measured is the increased administrative charge which  
2        would increase by 10.5 percent.

3  
4        Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE LARGE GENERAL  
5        SERVICE RIDER (“LGS RIDER”).

6        A. This is a new rate proposal designed for improving interruptible capabilities in South Dakota.  
7        The LGS Rider offers contracted options for customers and Otter Tail and require individual  
8        approval of the Commission.

9  
10       Originally introduced in Minnesota in the 1995, this Rider has undergone a number of  
11       improvements which provide larger customers with flexible pricing options. The LGS Rider  
12       offers the following features, which are further described in the proposed rate schedule found  
13       in Rate Schedules Volume 3.

- 14       • Custom fixed or hourly pricing options over a Customer Baseline Load (CBL)
- 15       • Special short-term capacity purchases and buybacks
- 16       • Interruptible Load over the Customer Baseline Load (CBL)

17  
18       Q. WHAT ARE THE BILL IMPACTS OF THE PROPOSED LARGE GENERAL SERVICE  
19       RIDER?

20       A. This is a new service; therefore there are no current customers on this Rider. Generally,  
21       customers would take service on this Rider in order to allow the company to interrupt load  
22       above the CBL. Customers would see savings since the rate structure would discount  
23       demand charges. Savings would be determined on a customer-by-customer basis.

24  
25       Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE BULK  
26       INTERRUPTIBLE RIDER.

27       A. The Bulk Interruptible Rider is a contract-based rate for which each contract would be  
28       approved by the Commission. My proposal only adds the fuel cost adjustment to this rate,  
29       similar to other rates described in my testimony.

30

1 Q. WHAT ARE THE BILL IMPACTS OF THE PROPOSED BULK INTERRUPTIBLE  
2 RIDER?

3 A. The bill impacts for the Bulk Interruptible Rider would charge the overall costs in proportion  
4 to the month-by-month change in the fuel cost adjustment (FCA) rate. To illustrate, if a Bulk  
5 Interruptible rate was \$0.04/kWh, a positive FCA rate of \$0.005/kWh would increase the  
6 customers overall cost by 12.5%. Likewise, if the FCA was a negative \$0.005 kWh, the  
7 customer would realize a decrease of 12.5%.

8

9 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE AIR  
10 CONDITIONING CONTROL RIDER.

11 A. This is another new rate proposal for South Dakota. For a number of years, Otter Tail has  
12 offered cycling of air conditioners in Minnesota to aid in reducing peak demands during the  
13 summer. My proposal provides a bill credit of \$7 per month for customers who participate in  
14 this program. This credit is offered in the months starting in June through September. The  
15 Air Conditioning Control Rider Credit was developed based on our current credit and credits  
16 offered by other utilities.

17

18 Q. WHAT IS THE BILL IMPACT OF THE PROPOSED AIR CONDITIONING CONTROL  
19 RIDER?

20 A. This is a new service, therefore there are no current customers on this Rider. However, the  
21 bill impact for the Air Conditioning Control Rider will reduce enrolled customers' bills by \$7  
22 per month.

23

24 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE VOLUNTARY  
25 RENEWABLE ENERGY RIDER.

26 A. My proposal updates the energy rate (kWh per 100 kWh block) to \$1.30 per 100 kWh-block.  
27 This is a reduction of 30 cents per 100-kWh block.

28

1 Q. WHAT ARE THE BILL IMPACTS OF THE PROPOSED RENEWABLE ENERGY  
2 RIDER?

3 A. The bill impacts for the Renewable Energy Rider will show a reduction of 30 cents per 100  
4 kWh block.

5  
6 Q. PLEASE DESCRIBE YOUR RATE DESIGN PROPOSAL FOR THE RELEASED  
7 ENERGY RIDER.

8 A. There are no changes contemplated for this rider.

9

10 Q. ARE THERE ANY RATE SCHEDULES OR RIDERS THAT OTP PROPOSES NOT  
11 CHANGE AS PART OF THIS RATE CASE FILING?

12 A. Yes. The following riders found in Section 12 and Section 14 of the Rate Book will be  
13 addressed in a separate filing by December 31, 2008. The reasons for not including the  
14 updates are twofold: 1) important cost information is not currently available, and 2) the end  
15 of year filing will coincide with requirements in other states. It will be more administratively  
16 efficient to update these rates in all our states at one time.

- 17 • Small Power Producer Rider - Occasional Delivery Energy Service.
- 18 • Small Power Producer Rider (Time of Delivery Energy Service).
- 19 • Small Power Producer Rider (Dependable Service).

20

21 Q. DOES THIS END YOUR TESTIMONY REGARDING RATE DESIGN?

22 A. Yes it does.

23

24

25 **VI. RATE SCHEDULE CHANGES OTHER THAN RATES.**

26

27 Q. IS OTP PROPOSING RATE SCHEDULE CHANGES OTHER THAN THOSE RELATING  
28 TO RATES DESCRIBED PREVIOUSLY?

29 A. Yes. OTP's current rate book is being updated in several ways. Many common provisions  
30 have been moved to the General Rules and Regulations. And there have been numerous

1 other changes to the individual rate schedules. I describe those changes in this portion of my  
2 testimony. A number of the changes are reflected in a matrix of Miscellaneous Rate  
3 Schedule changes, which is Ex. \_\_\_ (DGP-1), Schedule 2, of my testimony. The pagination  
4 references on the matrix refer to the black-lined Rate Schedule sheets contained in Volume  
5 2B.

6  
7 **ORGANIZATION OF THE RATE SCHEDULE BOOK**

8 Q. HOW HAS OTP ARRANGED ITS RATE SCHEDULES IN ITS RATE SCHEDULE  
9 BOOK?

10 A. OTP proposes the following order of the rate schedule sheets in its rate schedule book:

- 11 Index
- 12 Preliminary statement
- 13 Sections 1.00 through 8.99 – General Rules and Regulations
- 14 Sections 9.00 through 9.99 – Residential and Farm Services
- 15 Section 10.00 through 10.99 – General Services
- 16 Section 11.00 through 11.99 – Other Services
- 17 Section 12.00 through 12.99 – Purchase Power Riders
- 18 Section 13.00 through 13.99 – Mandatory Riders
- 19 Section 14.00 through 14.99 – Voluntary Riders
- 20 Section 15.00 South Dakota Communities Served
- 21 Section 16.00 – Summary of contracts with Deviations
- 22 Section 17.00 – Sample forms

23  
24 Q. WHY HAS OTP PROPOSED TO ORDER ITS RATE SCHEDULES USING THE ABOVE  
25 ORDER?

26 A. OTP has 11 customer service centers throughout its service territory where OTP employees  
27 answer phone calls from customers in South Dakota, Minnesota, and North Dakota. Having  
28 consistent rate schedule books in all three states minimizes the potential for confusion by our  
29 customer service personnel as they respond to customer inquiries and by our customers as  
30 they review our rate schedule books and other information regarding our rates.

31  
32 Q. WHAT IS OTP'S REQUEST REGARDING THE ORDER OF ITS RATE SCHEDULES?

33 A. Because our customer service representatives, wherever located, assist customers in South  
34 Dakota, North Dakota and Minnesota, I believe there are administrative efficiencies gained

1 by having rate schedule books that are consistently organized and arranged. The  
2 arrangement of our rate schedule book was proposed and approved in Minnesota. OTP is  
3 requesting the same organization and arrangement of the South Dakota and North Dakota  
4 rate schedule books in this case, and a North Dakota rate case that was filed with the North  
5 Dakota Commission contemporaneously with this one. For these reasons and because the  
6 order of OTP's rate schedules does not precisely reflect the order identified by South Dakota  
7 Administrative Rule 20:10:13:13, OTP requests a permanent variance to that Rule to allow  
8 OTP to arrange its rate schedules as explained above.  
9

10 **RATE SCHEDULE BOOK VOLUME**

11 Q. WHAT CHANGES HAVE BEEN MADE TO THE VOLUME NUMBER FOR OTP'S  
12 RATE SCHEDULE BOOK?

13 A. Because OTP made considerable changes to most if not all of its rate schedules, we are  
14 proposing to cancel OTP's Volume 1 rate schedule book and replace it with Volume 2. Each  
15 rate schedule in Volume 2 has been marked as the Original sheet.  
16

17 Q. HAS OTP FILED REDLINE AND NON-REDLINE VERSIONS OF ITS RATE  
18 SCHEDULES?

19 A. Yes. Even though we are proposing to cancel Volume 1, we have filed both redline and non-  
20 redline versions of the rate schedules. In addition, the pages 1 through 3 of the Index for the  
21 rate schedule book contain a column that lists the prior sheet for current rate schedules. This  
22 is intended to help identify each applicable proposed rate schedule with the corresponding  
23 current rate schedule.  
24

1 **RIDER APPLICABILITY MATRICES**

2 Q. DESCRIBE THE RIDER APPLICABILITY MATRICES?

3 A. The Rider Applicability Matrices are organized into three schedules: Purchase Power Riders,  
4 Mandatory Riders, and Voluntary Riders. Each matrix designates which rider is applicable  
5 to the base rate. The matrices are designed to serve as a compliance record for OTP and the  
6 Commission as well as an explanation tool for OTP customer service personnel in assisting  
7 customers.

8 For example, riders contained in the Mandatory Riders – Applicability Matrix will show  
9 the list of mandatory riders and how they apply to each rate. The same concept applies to  
10 both the Purchase Power Riders – Applicability Matrix and Voluntary Riders – Applicability  
11 Matrix.

12 The matrices are located in Sections 12.00 – 14.00 of the Electric Rate Schedule Volume  
13 2.

14

15 **RATE SCHEDULE – RATE SCHEDULES TO BE CANCELLED OR MOVED**

16 Q. IS OTP PROPOSING TO CANCEL OR MOVE RATE SCHEDULES?

17 A. Yes, as shown below in Table 24.

18

19 **Table 24. PROPOSED TO BE CANCELLED**

20 **ELECTRIC SERVICE – SOUTH DAKOTA**

21

<b><u>RATE SCHEDULE DESCRIPTION</u></b>	<u>Rate</u>	<u>Sheet</u>
	<u>Designation</u>	<u>No.</u>
<b><u>RESIDENTIAL AND WATER HEATING SERVICE</u></b>		
Retired Employee Rate (Closed)	R-95S	15
<b><u>GENERAL AND COMMERCIAL SERVICE</u></b>		
Large General Service (Off Peak Rider)	C-04S	30.2
General Service (Athletic Field no demand only)	G-01S	20 General
Service (Controlled Demand)	G-02S	20.1 Rider
Applicable to General Service Rate (Closed)	G-21S	22
Electric Climate Control (Non-Residential - General Service) (Closed)	G-93S	29

31

1 **INTERRUPTIBLE SERVICE**

2 Fixed Time of Delivery

3 100 kW or More I-04S 50.4  
4 - Moved-combined with rate schedule I-04S, Sheet 50.3, Fixed Time of Delivery - Less than  
5 100 kW

6 Primary Service I-04S 50.5  
7 - Moved-combined with rate schedule I-04S, Sheet 50.3, Fixed Time of Delivery - Less than  
8 100 kW

9 **MISCELLANEOUS**

10 Municipal Pumping - Alternative Sewage Disposal M-56S 95.2  
11

12 **MOVED TO GENERAL RULES & REGULATIONS**

13 Customer Connection Charge M-61S 98.1

14 Deposits – Meter Tests at Customer Requests M-62S 98.3

15 **CANCELLED RATE CODES**

16 The Water Heating Rate Codes from Residential, Farm and General Service Rates were moved  
17 to Water Heating – Controlled Service R-91N (now Section 14.01) and combined into rate codes  
18 70-191 and 70-192. In addition, OTP proposes to cancel rate code 42-180, which is the  
19 Controlled Loads Less Than 80 kW Capacity With Credit-Closed to New Customers. This rate  
20 code offers customers a credit for the first three years of service under this rate. This rate code  
21 was closed to new customers as of January 1, 2006. Customers are automatically switched from  
22 rate code 42-180 to 42-190 when the first three years has been reached. OTP will no longer have  
23 any customers on this rate code as of January 1, 2009.

24  
25 Q. WHY ARE THESE RATES BEING CANCELLED OR RELOCATED?

26 A. The rates are being cancelled because they were previously closed or they were duplicative  
27 of our proposed rates. The rates are being relocated due to inefficient placement in our rate  
28 schedule.

29  
30 Q. WHY IS THE ELECTRIC CLIMATE CONTROL (NONRESIDENTIAL GENERAL  
31 SERVICE) (CLOSED) RATE BEING CANCELLED?

32 A. This option was closed to new customers in 1981 and there are a total of 65 customers on the  
33 42-493 rate and 4 on the 42-494 rate. This rate is a very complicated rate for customers to  
34 understand and OTP has a limited ability to determine and control the types of equipment

1 and systems connected on the customer's side of the meter. Therefore, OTP proposes  
2 cancelling this rate and transferring the remaining customers impacted by the elimination of  
3 this rate to the appropriate available rate.  
4

5 Q. PLEASE DESCRIBE HOW THE NUMBER OF CUSTOMERS ON THIS RATE HAS  
6 CHANGED SINCE THE RATE WAS CLOSED IN 1981.

7 A. As of December 31, 1981, there were a total of 298 customers on the 493 rate and there were  
8 a total of 80 customers on the 494 rate. As customers on this rate discontinue service or there  
9 is a change in ownership at a given location, new customers at these locations are offered an  
10 appropriate available rate.  
11

12 Q. BASED ON THE ATTRITION OF CUSTOMERS FROM THIS RATE SINCE 1981, HOW  
13 MANY YEARS WOULD IT TAKE FOR ALL CUSTOMERS TO BE MOVED OFF OF  
14 THIS CLOSED RATE?

15 A. The average number of customers moved off of the 493 rate has been just under 9 customers  
16 per year and just under 3 customers per year for the 494 rate. Based on this average, it would  
17 take a minimum of approximately 7.5 more years to move all customers off the 493 rate and  
18 a minimum of approximately 1.5 more years to move customers off the 494 rate. A large  
19 portion of the customers would not migrate off the rate for these two reasons. There will be  
20 customers that remain on the rate indefinitely due to customer locations never changing  
21 hands. Therefore, due to the complexities of this rate, OTP's inability to control the types of  
22 equipment connected on the customer's side of the meter and the additional length of time to  
23 offer a closed rate, OTP proposes to cancel the Electronic Climate Control rate and move the  
24 remaining customers to the appropriate available rate. As I mentioned above, as of  
25 September 30, 2008, there are currently 65 customers on the 493 rate and 4 customers on the  
26 494 rate.  
27

1 Q. WHAT ARE THE BILL IMPACTS TO THE CUSTOMERS CURRENTLY ON THESE  
2 RATES?

3 A. The bill impacts for both of these customers are discussed earlier in my testimony. See  
4 Figure 6 and 9 for further information.

5  
6 Q. WHY IS THE GENERAL SERVICE (CONTROLLED DEMAND –EXPERIMENTAL)  
7 RATE BEING CANCELLED?

8 A. The Controlled-Demand Experimental Rate is being cancelled due to the rate design being  
9 incompatible with our current cost structure. The newly proposed Commercial Time of Use  
10 Rate better fits our cost structure and provides better price signals to customers who want to  
11 shift consumption to reduce energy costs.

12

13 Q. WHAT ARE THE BILL IMPACTS TO THE CUSTOMERS CURRENTLY ON THESE  
14 RATES?

15 A. There are just two customers currently on this rate and the bill impacts for both of these  
16 customers are discussed earlier in my testimony. See Figure 5 and 8 for further information.

17

18 **EFFECTIVE DATE**

19 Q. WHAT PROPOSAL HAS OTP MADE WITH RESPECT TO THE EFFECTIVE DATE OF  
20 ITS RATE SCHEDULES?

21 A. OTP’s current Customer Information System produces bills based on the bill date rather than  
22 the date a meter was read. Therefore, in order to accommodate the transition from current  
23 rates to final rates, OTP proposes to change the effective date of its rate schedules from “with  
24 service rendered” to “with bills rendered”.

25

26 **GENERAL RULES AND REGULATIONS**

27 Q. IS OTP PROPOSING CHANGES TO ITS GENERAL RULES AND REGULATIONS?

28 A. Yes. OTP is filing a new set of General Rules and Regulations to replace in its entirety the  
29 existing General Rules and Regulations section of our rate schedule.

30

1 Q. WHAT IS THE REASON FOR FILING ENTIRELY NEW RULES AND REGULATIONS,  
2 RATHER THAN AMENDING THE EXISTING RULES AND REGULATIONS?

3 A. When we compared our current general terms and conditions section of the rate schedule  
4 with those of other utilities we realized that it would be more efficient to start fresh than  
5 attempting to edit around existing language. An entirely new and greatly expanded general  
6 terms and condition section allowed us to meet the following three goals:

7 First, writing new General Rules and Regulations allowed OTP to consolidate and  
8 incorporate standard terms and conditions that affect multiple, if not all, services, into a  
9 single location (the General Rules and Regulations) while removing these terms from the  
10 individual service rate sheets. An example of this set of changes is billing and payment  
11 terms. This results in a more comprehensive, uniform, and readily accessible set of generally  
12 applicable terms and conditions controlling OTP's provision of service.

13 Second, in preparing the new General Rules and Regulations, OTP reviewed, analyzed  
14 and incorporated the applicable South Dakota statutes and Commission rules governing the  
15 provision of electric service. This assured that OTP's rate schedule complies with current  
16 laws and regulations.

17 Third, creating a new General Rules and Regulations section allowed OTP to include new  
18 provisions addressing generally occurring situations that it encounters in its operations, and  
19 to clarify the terms and conditions that apply to its provision of services in those  
20 circumstances. OTP looked both to the experience and knowledge of its own personnel, and  
21 to the rate schedule provisions adopted by other electric service providers in South Dakota, in  
22 developing these portions of its General Rules and Regulations. As I mentioned earlier in my  
23 testimony, OTP customer service representatives, wherever located, answer phone calls from  
24 customers in South Dakota, Minnesota, and North Dakota. Having consistent General Rules  
25 and Regulations in all three states allows for efficient and consistent application of Rate  
26 Schedule provisions and reduces the potential for confusion for OTP Customer Service  
27 Personnel and OTP customers.

28

1 **ARTICLE 1: GENERAL SERVICE RULES**

2 Q. PLEASE DESCRIBE THE CONTENTS OF ARTICLE 1 OF THE NEW RULES AND  
3 REGULATIONS.

4 A. The four sections in Article 1 of the General Rules and Regulations address the scope of the  
5 rules and regulations, and certain aspects of initiating service.

6 Section 1.01, Scope of General Rules and Regulations, is essentially the same provision  
7 as that contained in OTP’s current General Rules and Regulations Section 1, with the new  
8 provision expanded to clarify how differences between the terms of the General Rules and  
9 Regulations, statutes, or the Commission Rules will be resolved. This Section also points out  
10 that a glossary of terms has been added to the General Rules and Regulations, in Section 8.0.

11 Section 1.02, Application for Service, is nearly identical to the first paragraph of Section  
12 2 of OTP’s current General Rules and Regulations, with minor clarifying edits. A new  
13 provision in the Application for Service section is a requirement that an applicant for service  
14 is required to be 18 years of age or older. This requirement is intended to ensure OTP is  
15 entering into an agreement to provide service with a customer who is capable of entering into  
16 a legally binding contract. The age of majority in the state of South Dakota is 18.

17 Section 1.03, Deposits, Guarantees, is a restatement of Section 4 in OTP’s current  
18 General Rules and Regulations, with changes to correctly identify rights and obligations  
19 under the Commission’s Rules governing Deposits and Guarantees.

20 Section 1.04, Customer Connection Charge, has been moved from OTP’s current  
21 Miscellaneous Service Rate Schedule M-61S, with further clarification to explain when  
22 connection charges will apply and at what rates. Both the applicability of the charges and the  
23 proposed service charge rates are consistent with the rate schedule provisions of other South  
24 Dakota electric utilities.

25  
26 **ARTICLE 2 - RATE APPLICATION**

27 Q. PLEASE DESCRIBE THE CONTENTS OF ARTICLE 2 OF THE NEW RULES AND  
28 REGULATIONS.

29 A. Section 2.01, Assisting Customers in Rate Selection, is a new provision reflecting OTP’s  
30 obligation under South Dakota Administrative Rules 20:10:17:01 to assist customers in

1 selecting safe and efficient service. The Section clarifies that OTP does not guarantee that  
2 charges under a different available rate could not be lower. This is reasonable because small  
3 changes in consumption can, in some cases, result in changes in the most advantageous rate.

4 Section 2.02, Service Classification, is similar to Section 14 under OTP's now-filed  
5 General Rules and Regulations. The new provision updates references to applicable statutes  
6 and Rules, and provides clarifications to better explain service classifications. This section  
7 also includes a restatement of Section 15 of OTP's current Rules and Regulations.

### 8 9 **ARTICLE 3 - CURTAILMENT OR INTERRUPTION OF SERVICE**

10 **Q. PLEASE DESCRIBE THE CONTENTS OF ARTICLE 3 OF THE NEW RULES AND**  
11 **REGULATIONS.**

12 **A.** This Article addresses OTP's and customers' respective rights and obligations concerning  
13 disconnection, curtailment and interruption of service.

14 Section 3.01, Disconnection of Service, identifies and incorporates the Commission's  
15 Rules governing OTP's ability to disconnect service. OTP's current rate schedule does not  
16 address these matters. This Section also identifies OTP's remedies if it determines a  
17 customer has tampered with OTP facilities or there has been a diversion of service, which has  
18 been previously addressed in OTP's current Rules and Regulations.

19 Section 3.02, Curtailment or Interruption of Service, provides a statement of OTP's rights  
20 to curtail or interrupt service when needed to protect the integrity of its electrical system, or  
21 to respond to the request of a regional reliability authority.

22 Section 3.03, is reserved for future use

23 Section 3.04, is reserved for future use.

24 Section 3.05, Continuity of Service, is a restatement of Section 5 in OTP's current  
25 General Rules and Regulations. The language in Section 3.05 more explicitly and accurately  
26 reflects industry standard rate schedule language limiting OTP's liability as a result of  
27 service interruptions or delays.

1 **ARTICLE 4 - METERING AND BILLING**

2 Q. PLEASE DESCRIBE THE CONTENTS OF ARTICLE 4 OF THE NEW RULES AND  
3 REGULATIONS.

4 A. This Article contains the generally applicable provisions on service metering, billing, and  
5 payment matters.

6 Section 4.01, Meter and Service Installations, addresses OTP’s and the customer’s  
7 obligations for meter and service installations. OTP’s current General Rules and  
8 Regulations, Section 3, refers customers to a “Meter Manual” for information on meter and  
9 service installations. The information in the Meter Manual has been placed into this Section  
10 (and in other provisions of Article 4). OTP also updated and clarified some information in  
11 new Section 4.01.

12 Section 4.02, Meter Reading, explains OTP’s obligations and rights with respect to meter  
13 reading. The provision on self-read meters reflects the current South Dakota Administrative  
14 Rule 20:10:17:02, and includes Section 11 of OTP’s current General Rules and Regulations  
15 (Rural Meter Reading).

16 Section 4.03, Estimated Readings, is a restatement of Section 20 of OTP’s current  
17 General Rules and Regulations and also states OTP’s and customers’ respective rights and  
18 obligations concerning estimated meter readings. The Section is consistent with the current  
19 South Dakota Administrative Rule 20:10:17:11.

20 Section 4.04, Meter Testing, is also a new provision. Consistent with the current South  
21 Dakota Administrative Rule 20:10:17:06, the Section states rights and obligations (including  
22 for billing adjustments) where a customer’s meter registers more than 2% fast or slow. This  
23 Section also identifies charges if a customer requests retesting of a meter within one year of a  
24 previous test, and on retesting the meter is found to register accurately. The concept of  
25 charging for retesting under these circumstances, is consistent with the current South Dakota  
26 Administrative Rule 20:10:17:05.

27 Section 4.05, Access to Customer Premises, is a restatement of Section 12 in OTP’s  
28 current General Rules and Regulations, with changes to correctly identify rights and  
29 obligations under the South Dakota Administrative Rule 20:10:17:02 governing OTP’s

1 access to customer premises. The provision also identifies OTP's right of entry to remove its  
2 equipment from customer property, as part of its normal course of business.

3 Section 4.06, Establishing Demands, restates with clarifying language the first paragraph  
4 of OTP's current General Rules and Regulations, Section 19.

5 Section 4.07, Monthly Billing Period and Prorated Bills, in part restates Section 21 of  
6 OTP's current General Rules and Regulations. The new provision more accurately reflects  
7 the current South Dakota Administrative Rule 20:10:17:01, and consistent with those Rules  
8 explains what a normal billing period is.

9 Section 4.08, Electric Service Bill - Identification of Amounts and Meter Reading,  
10 follows OTP's current Section 16 of its General Rules and Regulations, with non-substantive,  
11 clarifying edits. This Section also states the provisions contained in Section 22 of the current  
12 General Rules and Regulations, concerning adjustments for payments to Municipalities.  
13 Finally, the Section identifies that OTP will collect from customers, and the service bill will  
14 itemize, any sales, use, excise or other taxes and fees that are applicable to the service  
15 provided.

16 Section 4.09, Billing Adjustments, is a new provision. This Section identifies when and  
17 how adjustments to customer bills will be made by OTP. The Section is consistent with the  
18 current South Dakota Administrative Rule 20:10:17:09.

19 Section 4.10, Payment Policy, is a new provision. This section is a restatement of the  
20 Payment section contained in virtually all of OTP's current rate schedules with expanded and  
21 clarifying language that identifies when customer payments are due and when late payments  
22 apply. This section is consistent with the current South Dakota Administrative Rule  
23 20:10:17:03. OTP also proposes to increase from \$10.00 to \$15.00 the charge for payments  
24 by check which are not honored by the Customer's financial institution. Both the  
25 applicability of this charge and the proposed rate is consistent with the rate schedule  
26 provisions and rates of other South Dakota electric utilities. Currently OTP is charged \$6.00  
27 from its bank when a Customer's check is returned to OTP. OTP has estimated the cost for  
28 paying any bank charges from its bank and to process an NSF check to be \$16.04. Therefore,  
29 in order to move this charge closer to cost, OTP proposes to increase the NSF check charge  
30 from \$10.00 to \$15.00 in this rate case.

1 Section 4.11, Even Monthly Payment, describes OTP's optional program permitting  
2 Residential and Commercial service customers to choose to budget their electric service  
3 expenses over a twelve (12) month period. This Section explains how billings are  
4 determined, and commits OTP to pay interest on any accrued credit balance.

5 Section 4.12, Summary Billing Service, describes a customer's ability to consolidate  
6 multiple billed accounts into a master bill with a single billing date.

7 Section 4.13, Account History Charge, is a new provision intended to address the expense  
8 incurred by OTP where a single customer frequently requests multiple account history  
9 reports. Both the concept of the charge and the amount of the charge shown is consistent  
10 with the rate schedule provisions of other electric service providers in South Dakota.

11 Section 4.14, Combined Metering, this is a new provision and is intended to allow  
12 customers with contiguous property and with a minimum entrance rating of 750 kVa to  
13 combine multiple service and metering points into one meter reading. This allows OTP to  
14 bill the customer as one large load for billing on one rate.

15  
16 **ARTICLE 5 - STANDARD INSTALLATION AND EXTENSION RULES**

17 **Q. PLEASE DESCRIBE THE CONTENTS OF ARTICLE 5 OF THE NEW RULES AND**  
18 **REGULATIONS.**

19 **A.** Section 5.01, Extension Rules and Minimum Revenue Guarantee, follows Section 6 in OTP's  
20 current General Rules and Regulations, with clarifying language to better explain application  
21 of the Rule.

22 Section 5.02, Special Facilities, originates in Section 10 of OTP's current General Rules  
23 and Regulations. The new Section better explains how and when a customer may incur  
24 Excess Expenditure charges for the installation of Special Facilities. The Section addresses a  
25 set of generally occurring situations that OTP encounters in its operations, and clarifies what  
26 terms and conditions will apply to its provision of services in those circumstances. OTP  
27 looked both to the experience and knowledge of its own personnel, and to the rate schedule  
28 provisions adopted by other electric service providers in South Dakota, in developing this  
29 Section.

1 Section 5.03, Temporary Services, rewrites Section 7 in OTP’s current General Rules and  
2 Regulations to comply with the current South Dakota Administrative Rule 20:10:18:01.

3 Section 5.04, Standard Installation, is new and explains how and when OTP will provide  
4 service at Secondary and Primary Voltage, and at Transmission Voltage, capacities. In  
5 developing this Section, OTP looked both to the experience and knowledge of its own  
6 personnel, and to the rate schedule provisions adopted by other electric service providers in  
7 South Dakota.

8 Section 5.05, Service Connection, incorporates many of the terms and conditions OTP  
9 has historically stated in its service contracts with customers. These terms define the  
10 respective rights and obligations of OTP and customers concerning the installation,  
11 maintenance, and ownership of lines and equipment supplied by OTP to provide electric  
12 service to the customer.

13  
14 **ARTICLE 6 - USE OF SERVICE RULES**

15 Q. PLEASE DESCRIBE THE CONTENTS OF ARTICLE 6 OF THE NEW RULES AND  
16 REGULATIONS.

17 A. Section 6.01, Customer Equipment, is based upon the second paragraph of Section 10 in  
18 OTP’s current filed General Rules and Regulations. This section addresses a set of generally  
19 occurring situations that OTP encounters in its operations, and clarifies the terms and  
20 conditions that will apply to its provision of services in those circumstances. In developing  
21 this Section, OTP looked both to the experience and knowledge of its own personnel, and to  
22 the rate schedule provisions adopted by other electric service providers in South Dakota.

23 Section 6.02, Use of Service, essentially follows Section 17 in OTP’s current General  
24 Rules and Regulations, with non-substantive clarifying edits.

25  
26 **ARTICLE 7 - COMPANY’S RIGHTS**

27 Q. PLEASE DESCRIBE THE CONTENTS OF ARTICLE 7 OF THE NEW RULES AND  
28 REGULATIONS.

29 A. Section 7.01, Waiver of Rights or Default, restates Section 23 in OTP’s current General  
30 Rules and Regulations.

1 Section 7.02, Modifications of Rates, Rules and Regulations, states that OTP has the right  
2 to modify its rates, rule and regulations in the future, in any manner permitted by law.

3  
4 **ARTICLE 8 - GLOSSARY AND DEFINITION OF SYMBOLS**

5 Q. PLEASE DESCRIBE THE CONTENTS OF SECTION 8.01 GLOSSARY.

6 A. Section 8.01 defines commonly used terms in the above-discussed provisions of the General  
7 Rules and Regulation using the commonly accepted meaning of those terms in the industry.

8  
9 Q. PLEASE DESCRIBE THE CONTENTS OF SECTION 8.02 DEFINITION OF SYMBOLS.

10 A. Section 8.02 provides the key showing the meaning of the symbols which will be used in the  
11 rate schedule as revisions are made in the future.

12  
13 Q. ARE THERE PROVISIONS IN OTP'S CURRENTLY FILED GENERAL RULES AND  
14 REGULATIONS WHICH ARE NOT CONTAINED IN THE PROPOSED GENERAL  
15 RULES AND REGULATIONS, OR OTHERWISE CONTAINED IN OTP'S NEW RATE  
16 SCHEDULE FILINGS?

17 A. Yes, Section 9, Gaseous Tube Lighting.

18 OTP determined that Section 9 is unnecessary for its operations in South Dakota and  
19 therefore eliminated this provision.

20  
21 **OTHER RATE SCHEDULE REVISIONS**

22 Q. IS OTP PROPOSING OTHER REVISIONS TO ITS RATE SCHEDULES?

23 A. Yes. We are proposing a number of formatting changes and reference revisions for the rate  
24 schedules.

25  
26 **Header Information Shown on all Rate Schedule Sheets**

27 Q WHAT CHANGES ARE YOU PROPOSING WITH RESPECT TO THE HEADER  
28 INFORMATION SHOWN ON OTP'S RATE SCHEDULE SHEETS?

29 A. We are proposing to update the rate schedule sheets to a standardized format with a header  
30 that includes: 1) OTP's logo that references the location of our main office in Fergus Falls

1 Minnesota; 2) The section number of the rate schedule sheet; 3) The name of the rate  
2 schedule; 4) The page number(s); and 5) The date of the last revision.

3

4

**Reordering of Sections**

5

Q. ARE YOU PROPOSING CHANGES TO THE ORDER OF INFORMATION SHOWN ON  
6 THE RATE SCHEDULE SHEETS?

6

7

A. Yes. The “Regulations” provisions of each section have been relocated to the beginning of  
8 each section. The order of presenting the remaining common provisions listed in each  
9 section has been standardized as much as possible to follow the same format for all services.

8

9

10

11

**Relocation of sections to the Rules and Regulations Document**

12

Q. ARE YOU PROPOSING TO REMOVE REQUIREMENTS THAT ARE COMMON TO  
13 ALL SERVICES AND INSTEAD ADDRESS THOSE REQUIREMENTS IN THE RULES  
14 AND REGULATION SECTION OF THE RATE SCHEDULE?

13

14

15

A. Yes. Because the Rules and Regulations uniformly apply to all services, when possible, the  
16 terms and conditions contained in the individual rate sections have been limited so as to  
17 avoid duplication. These moved provisions are discussed more fully in my earlier testimony  
18 regarding revisions to OTP’s General Rules and Regulations.

16

17

18

19

**Rate Schedule Reference – Names, Numbers and Codes**

20

Q. WHAT CHANGES ARE BEING PROPOSED WITH RESPECT TO SERVICE  
21 IDENTIFICATION?

22

23

A. OTP is proposing to use the descriptive names of each service as the primary identifier.  
24 Services are currently referenced by the descriptive name, the *Rate Designation* number and  
25 the *Rate Code*. We are proposing eliminating the *Rate Designation* number and replacing  
26 this numbering system with one that reorders the rates into more logical groupings or  
27 sections making it easier for the reader to locate specific rate schedule sheets.

24

25

26

27

28

1 Q. WHAT WILL BE THE IMPACT TO THE COMMISSION AND THE CUSTOMERS  
2 CAUSED BY THE ELIMINATION OF THE RATE DESIGNATION NUMBER?

3 A. The Rate Designation number is currently being used only as an indexing tool by OTP's Rate  
4 Department and although that number is referenced along with the other identifiers on the  
5 rate schedule sheets and OTP's web site, to our knowledge, it is not commonly used by the  
6 Commission or customers.

7

8 Q. IS OTP PROPOSING ANY CHANGES TO CURRENT RATE CODES?

9 A. Yes. The rate code for the Penalty on the Controlled Service Interruptible Load (80 kW  
10 capacity and greater), Controlled Service Interruptible Load (Less than 80 kW Capacity) and  
11 Controlled Service Deferred Load is currently 42-199. In order for OTP to determine which  
12 of these rates the Penalty billing is associated, we propose to change the rate codes for the  
13 Penalty rates as follows:

14       Controlled Service Interruptible Load (80 kW capacity and greater) – 70-169

15       Controlled Service Interruptible Load (Less than 80 kW Capacity) – 70-189

16       Controlled Service Deferred Load – 70-196.

17

18 Q. HAS OTP PROPOSED ANY OTHER CHANGES TO ITS RATE CODES?

19 A. Yes. We are also proposing to change the rate level from 42 to 70 in order to accommodate  
20 the transition from current rates to final rates within our customer information system.

21

22

23                                   **Changes to Residential Service –**

24                                   **Section 9, Rate Codes 42-101, 42-109, 42-111, and 42-119 (R-01S)**

25 Q. PLEASE DESCRIBE THE CHANGES BEING PROPOSED TO THE RESIDENTIAL  
26 SERVICE, SECTION 9.

27 A. We are proposing to remove any distinction between cottages and other residences, to  
28 eliminate additional requirements for Electric Homes and to eliminate the power requirement  
29 restrictions.

30

1 Q. WHY ARE YOU PROPOSING ELIMINATING THE REFERENCE TO COTTAGES?

2 A. Currently, we charge any premises identified as a summer cottage a higher monthly  
3 minimum bill, however, there does not appear to be any meaningful way to distinguish a  
4 “cottage” from other residences. Also, there is little or no cost justification for distinguishing  
5 between customers who have a second home for summer use (“cottages”) and those that  
6 close their primary residence for the winter.

7 Q. PLEASE EXPLAIN THE CHANGES PROPOSED RELATED TO ELECTRIC HOMES.

8 A. With respect to Section One – Building Construction, current building codes properly  
9 address the efficiency standards that should be used in home construction regardless of the  
10 type of heat that is utilized, and we do not believe that OTP has the authority necessary to  
11 monitor or enforce the requirements as currently stated. With respect to voltage reduction,  
12 OTP’s load management system lacks the capability in it’s present configuration to reduce  
13 voltage to any connected load and therefore it is unable to implement the level of control  
14 expressed in part two of this section. Since the loads addressed in this section are served on  
15 this firm service rate and since these loads are not physically separated from customers’ other  
16 electric loads, OTP is recommending that this restriction be removed from the rate.

17

18 Q. PLEASE EXPLAIN THE CHANGES PROPOSED RELATED TO THE TYPE OF POWER  
19 ALTERNATIVES AVAILABLE TO RESIDENTIAL CUSTOMERS.

20 A. Currently, residential customers are limited to 120/240 volts, single phase, 60-cycle  
21 alternating current. Although it is unlikely that the service voltage for a residential customer  
22 will be something other than 120/240 single phase, OTP proposes they have the flexibility to  
23 respond to non-standard requests for different power without having to characterize the  
24 customer as taking a different service. Therefore it is recommended that this section be  
25 removed from the rate schedule.

26

1                   **Residential Demand Control (Commonly Identified as RDC) –**  
2                   **Rate Code 42 – 241 (R-03S)**

3 Q. WHAT CHANGES ARE PROPOSED FOR RESIDENTIAL DEMAND CONTROL  
4 SERVICE?

5 A. We are proposing the following: elimination of the restrictions stated in the Applications of  
6 Schedule section of this rate; designation of three (3) kW as the default demand for new  
7 customers taking service under this rate; elimination of additional requirements for Electric  
8 Homes; elimination of OTP’s authority to inspect the home and oversee equipment selection;  
9 and elimination of the reference to typical control times.

10  
11 Q. WHAT RESTRICTIONS ARE BEING REMOVED AND WHY?

12 A. The Application section contains a list of possible end uses. The intent of the Residential  
13 Demand Control rate is to provide the total electrical requirements for homes taking service  
14 under its provisions. Since the rate does not place any restrictions on the type of end use  
15 loads customers may choose to purchase and install in their homes, there is no functional  
16 reason to include a list of allowable loads in the rate schedule.

17  
18 Q. WHY IS A MINIMUM DEMAND OF 3 KW BEING INCLUDED FOR NEW  
19 CUSTOMERS?

20 A. Until a level of demand can be determined based on actual usage, it is necessary to establish  
21 a reasonable proxy level. In order to assure the fair and consistent application of this rate,  
22 OTP is proposing to designate three (3) kW as the initial default setting for all new customers  
23 taking service under this rate. Our records indicate that the average established demand for  
24 all customers taking service under this rate is 5 kW with 21% of customers choosing to  
25 maintain a demand of 3 kW or less. Defaulting new customers at a demand level of 3 kW  
26 will provide adequate financial protection for OTP until the customer’s actual demand is  
27 recorded during a control period.

28

1 Q. WHY IS THE CROSS REFERENCE TO THE ELECTRIC HOMES PROVISION IN THE  
2 APPLICATION SECTION OF THE RATE SCHEDULE SHEET BEING ELIMINATED?

3 A. OTP proposes removing the reference to Electric Heat restrictions from the Application of  
4 Schedule section as well as the companion conditions of service listed at the end of the rate  
5 schedule sheet. OTP lacks the authority necessary to monitor or enforce the requirements as  
6 stated.

7 Also, OTP's load management system lacks the capability, in its present configuration, to  
8 implement the level of control expressed in part two of the requirements section (i.e. the right  
9 to reduce voltage and/or control demand) for space heating units. Since the loads addressed  
10 in this section are served using this firm service rate and since these loads are not physically  
11 separated from the customers' other electric loads, OTP is recommending that this restriction  
12 be removed from the rate.

13

14 Q. WHY ARE YOU PROPOSING ELIMINATING THE RIGHT TO INSPECT THE HOME  
15 AND OVERSEE EQUIPMENT SELECTION?

16 A. This right is currently provided in the 3<sup>rd</sup> paragraph of the conditions set forth at the end of  
17 the rate schedule sheet. However, OTP lacks the ability to effectively monitor or enforce the  
18 requirements as stated in this section. Further, we believe that better results can be  
19 accomplished through training and education. The Residential Demand Control rate is  
20 designed to provide customers with pricing signals based on their electrical usage during  
21 control periods. In order to take full advantage of this rate customers require a level of  
22 knowledge on the consequences of their usage patterns that is different than customers on  
23 OTP's other firm residential rate. OTP is staffed to provide design support and training on a  
24 reactive basis when requested, and does not believe that it is necessary to retain oversight  
25 authority.

26

1 Q. PLEASE EXPLAIN THE REASON FOR ELIMINATING THE CURRENT  
2 RESTRICTION ON CONTROL PERIODS.

3 A. The current language states that control periods will typically occur when the temperature is below  
4 zero in the winter and not occur on Sundays and that water heaters may be controlled during the  
5 summer months. Although the current language does not limit load control to those specific periods,  
6 inclusion of this statement in the rates schedule creates those expectations. The need to control loads  
7 cannot effectively be based on these parameters, and since load control can and does occur outside of  
8 these limits, OTP recommends removing this language from the rate.

9  
10 **Farm Service –**

11 **Rate Codes 42-361, 42-241, 42-361, and 42-701 (F-61S)**

12 Q. WHAT CHANGES ARE PROPOSED FOR FARM SERVICE?

13 A. OTP is recommending the following changes to the Farm Service terms and conditions:  
14 elimination of OTP's authority to restrict the specific customer owned end uses equipment; a  
15 provision for alternative Residential Service for farm homes; and elimination of the  
16 *Regulations Applying to Water Heating* section of this rate schedule.

17  
18 Q. WHY ARE YOU PROPOSING TO ELIMINATE THE LIST OF POSSIBLE END-USES  
19 FROM THE AVAILABILITY SECTION?

20 A. We are not attempting to regulate how farm customers use the energy. Nor is it practical to  
21 list each potential end use of the energy.

22  
23 Q. WHAT CHANGES ARE PROPOSED WITH RESPECT TO SERVING A FARM  
24 RESIDENCE?

25 A. We propose allowing farm customers to elect separate Residential Service or Residential  
26 Demand Control Service for their homes. OTP takes the position that a farm customer  
27 should have the same rate options as other residential customers for that portion of their  
28 service dedicated to serving their home. In order to offer this option to these customers OTP  
29 has proposed changes to this rate schedule to address facilities necessary to provide service  
30 under this specific rate as well as the minimum required for service under the second  
31 Residential rate that is chosen by the customer.

1 Q. WHY IS OTP PROPOSING TO ELIMINATE THE ELECTRIC WATER HEATER  
2 DESIGN CHARACTERISTICS?

3 A. Currently paragraph 5 of the rate schedule requires that water heaters meet certain  
4 requirements (e.g. wattage limitations). However, OTP lacks the ability to effectively  
5 monitor or enforce these requirements. Further, based on its current load control capabilities,  
6 OTP does not have the ability to separate the water heating load from the other controlled  
7 service loads. For these reasons OTP is requesting that this section be removed from the rate.

8  
9 **Large General Service –**  
10 **Rate Codes 42-602, 42-603 (C-02S)**

11 Q. WHAT CHANGES ARE OTP REQUESTING WITH RESPECT TO LARGE GENERAL  
12 SERVICE?

13 A. OTP is recommending the following changes: elimination of the customer’s option to  
14 request this rate as stated in the Application Section; elimination of the reference to three-  
15 phase or single-phase power from the Application Section of this rate; modification of the  
16 billing demand determination section to clarify the determination of the billing demand.

17  
18 Q. WHY IS OTP ELIMINATING THE WORD “REQUEST” FROM THE LANGUAGE OF  
19 THIS RATE SCHEDULE?

20 A. The goal of OTP customer service personnel is to minimize misapplication of the rate  
21 schedule, which improves customer satisfaction and reduces excess administrative duties  
22 such as bill complaints and adjustments. To better reflect that OTP customer service  
23 personnel assists its customers in the appropriate selection of service offerings. Retaining the  
24 word “request” inaccurately suggests the selection is solely left to the customer.

25  
26 Q. WHY IS OTP PROPOSING TO ELIMINATE FROM THE RATE SCHEDULE THE  
27 REFERENCE TO “SINGLE PHASE OR THREE PHASE SERVICE”?

28 A. The language is unnecessary and removing it will not change in any respect the service  
29 offered.

1 Q. HAS OTP PROPOSED ANY ADDITIONAL LEVELS OF SERVICE TO THIS RATE?

2 A. Yes. OTP has also proposed to add a Transmission level of service to this rate. Adding a  
3 Transmission level to this rate allows all large general service customers the ability to choose  
4 to own their own equipment and connect to OTP's system at the transmission level.

5

6 **Interruptible Load Rider – Commonly Identified as Large Dual Fuel**  
7 **Rate Code 42-170, 42-165, 42-199 (I-01S)**

8 Q. WHAT CHANGES ARE PROPOSED WITH RESPECT TO THE INTERRUPTIBLE  
9 LOAD RIDER?

10 A. OTP is recommending the following changes: a change to the name of this rider to add the  
11 commonly identified name; removal of reference to zone 1 and zone 9; a clarification on the  
12 correct application of the rider, an explanation of penalty periods modified; elimination of  
13 language related to recommended installed capacity of heating; and elimination of language  
14 related to OTP's right to control.

15

16 Q. WHY IS OTP CHANGING THE NAME OF THIS SERVICE?

17 A. OTP is proposing to add the commonly used identifier, "Large Dual Fuel" to aid customers  
18 in identifying the purpose and use of this rider. We also added "CT Metering Rider" to the  
19 name of the service.

20

21 Q. WHY IS OTP REMOVING THE REFERENCE TO ZONES 1 AND 9?

22 A. This rate is equally available to customers in all zones without a price differential.  
23 Therefore, the language referencing zones is inconsistent with the availability of the service.

24

25 Q. WHAT CLARIFICATION HAS BEEN ADDED ON THE APPLICATION OF THE  
26 RIDER?

27 A. OTP has added clarifying language allowing minimal fan and pump load to be served under  
28 the interruptible rate even when that load is not subject to interruption to allow the operation  
29 of the controlled service system. OTP added this language to address situations where  
30 equipment design or the infeasibility of separate wiring makes this wiring structure necessary  
31 but clarifies it is intended to constitute minimal total load served through this rider.

1 Additional language is included explaining that the exemption for pump and fan loads does  
2 not include grain drying or circulation pumps.

3 Additional language has been added to address the applications related to Option 1 and  
4 Option. These options were discussed earlier in my testimony. To illustrate, Option 2  
5 introduces different control and demand billing measurements, therefore new language has  
6 been added to address these expanded services.

7  
8 Q. PLEASE EXPLAIN THE CHANGES TO THE PENALTY PERIODS.

9 A. The clarifying language is proposed to impose a penalty when OTP signals to curtail load  
10 and customer's equipment does not in fact curtail load. Additional language indicates that  
11 the penalty charges are not intended as a means for a customer to "buy through" control but  
12 instead constitutes an unauthorized use of electricity.

13  
14 Q. ARE THERE ANY OTHER PROPOSED CHANGES TO THE PENALTY RATE FOR  
15 THIS RATE?

16 A. Yes. The rate code for the Penalty on this rate is currently 42-199. In order for OTP to  
17 determine what rate the Penalty billing is associated, we propose to change the Penalty rate  
18 code on this rate to 70-881.

19  
20 Q. WHY HAS THE LOCATION OF THE CONTROL DEVICES BEEN REMOVED FROM  
21 THE RATE SCHEDULE?

22 A. Location of control devices has been moved to the General Rules and Regulations section of  
23 the rate schedule because it is relevant to more services than just this one.

24  
25 Q. WHY ARE YOU RECOMMENDING THE ELIMINATION OF LANGUAGE RELATING  
26 TO RECOMMENDED INSTALLED CAPACITY OF HEATING EQUIPMENT?

27 A. The recommendation in the current rate schedule is not a condition of service and therefore it  
28 is not appropriate for inclusion. Such matters are better addressed through building codes  
29 and construction standards.

30

1 Q. WHY HAVE YOU ELIMINATED THE OTHER RECOMMENDATIONS?

2 A. These recommendations have been eliminated from the rate schedule, but both have been  
3 retained in the General Rules and Regulations. Conditions for control and the issue of  
4 liability are general topics better addressed in the General Rules and Regulations.

5

6 **Interruptible Load Rider – Commonly Identified as Small Dual Fuel**  
7 **Rate Code 42-190, 42-185, 42-199 (I-02S)**

8 Q. WHAT CHANGES ARE PROPOSED WITH RESPECT TO THE INTERRUPTIBLE  
9 LOAD RIDER -- COMMONLY IDENTIFIED AS SMALL DUAL FUEL?

10 A. OTP is recommending the following changes to this rider: a change of the name of this rider  
11 to add commonly identified name, removal of the subhead reference to zone 1 and zone 9,  
12 clarification on the correct application of the rider, explanation of penalty periods modified,  
13 elimination of language related to recommended installed capacity of heating, and  
14 elimination of language from this rate schedule related to OTP's right to control.

15

16 Q. WHY ARE YOU PROPOSING TO CHANGE THE NAME?

17 A. OTP is proposing to add the commonly used identifier, "Small Dual Fuel" to aid customers  
18 in identifying the purpose and use of this rider. We have also added "Self-Contained  
19 Metering Rider" to the name.

20

21 Q. WHY IS THE REFERENCE TO ZONE 1 AND ZONE 9 PROPOSED FOR REMOVAL?

22 A. This rate is equally available to customers in all zones without a price differential, therefore,  
23 language referencing zones is not applicable.

24

25 Q. WHAT CLARIFICATION HAS BEEN ADDED ON THE APPLICATION OF THE  
26 RIDER?

27 A. OTP has added clarifying language allowing minimal fan and pump load to be served under  
28 the interruptible rate even when that load is not subject to interruption to allow the operation  
29 of the controlled service system. OTP added this language to address situations where  
30 equipment design or the infeasibility of separate wiring makes this wiring structure necessary  
31 but clarifies it is intended to constitute minimal total load served through this rider.

1 Additional language is included explaining that the exemption for pump and fan loads does  
2 not include grain drying or circulation pumps or other ancillary equipment.

3  
4 Q. PLEASE EXPLAIN THE CHANGES TO THE PENALTY PERIODS?

5 A. The clarifying language is proposed to impose a penalty when OTP signals to curtail load  
6 and customer's equipment does not in fact curtail load. Additional language indicates that  
7 the penalty charges are not intended as a means for a customer to "buy through" control but  
8 instead constitutes an unauthorized use of electricity.

9  
10 Q. ARE THERE ANY OTHER PROPOSED CHANGES TO THE PENALTY RATE FOR  
11 THIS RATE?

12 A. Yes. The rate code for the Penalty on this rate schedule is currently 42-199. In order for  
13 OTP to determine what rate the Penalty billing is associated, we propose to change the  
14 Penalty rate code on this rate to 70-882.

15  
16 Q. WHY HAVE THE RECOMMENDED INSTALLED CAPACITY PROVISIONS BEEN  
17 ELIMINATED?

18 A. The current recommendations for installed heating capacity (Other Provisions paragraphs 1  
19 and 2) are not a condition for taking service under this rider and are more appropriately  
20 addressed in building codes and standards.

21  
22 Q. WHY ARE YOU RECOMMENDING ELIMINATING THE PROVISIONS REGARDING  
23 RIGHT TO CONTROL AND LIABILITY?

24 A. These recommendations have been eliminated from the rate schedule, but both have been  
25 retained in the General Rules and Regulations. Conditions for control and the issue of  
26 liability are more appropriately addressed within the General Rules and Regulations because  
27 they apply to riders other than this particular service rider.

28

1 **Controlled Service Deferred Load Rider – Commonly Identified as Thermal Storage – Rate**  
2 **Code 42-197, 42-195, 42-199 (I-03S)**

3 Q. WHAT CHANGES ARE PROPOSED WITH RESPECT TO THE CONTROLLED  
4 SERVICE DEFERRED LOAD RIDER?

5 A. OTP is recommending the following substantive changes to this rider: a change of the name  
6 of this rider to add its commonly identified name; removal of the subhead reference to zone 1  
7 and zone 9; clarification on the correct application of the rider; explanation of penalty periods  
8 modified; elimination of language related to recommended installed capacity of heating; and  
9 elimination of language from this rate related to OTP's right to control.

10  
11 Q. PLEASE DESCRIBE THE CHANGES IN THE DESCRIPTIVE NAME.

12 A. OTP is proposing to add the commonly used identifier for this rider, "Thermal Storage" to  
13 aid customers in identifying the purpose and use of this rider.

14  
15 Q. WHY HAS THE REFERENCE TO ZONE 1 AND ZONE 9 BEEN REMOVED?

16 A. This rate is equally available to customers in all zones without a price differential.  
17 Therefore, language referencing zones is unnecessary.

18  
19 Q. IS ANY CLARIFYING LANGUAGE REGARDING THE APPLICATION OF THE  
20 RIDER PROPOSED?

21 A. Yes. OTP has added clarifying language notating that minimal fan and pump load may be  
22 served under the interruptible rider to allow for the operation of the controlled service  
23 system. OTP added this language to address situations where equipment design or the  
24 unfeasibility of separate wiring makes this wiring structure necessary but clarifies it is  
25 intended to constitute minimal total load served through this rider. Additional language is  
26 included explaining that the exemption for pump and fan loads does not include grain drying  
27 or circulation pumps and other ancillary equipment, as these are significantly sized loads  
28 where installed on this service. Grain drying load is intended to constitute a fully  
29 interruptible load with fans representing a significant portion of the load.

1 Q. PLEASE EXPLAIN THE MODIFICATIONS PROPOSED WITH RESPECT TO THE  
2 PENALTY PERIODS.

3 A. OTP proposes clarifying language to make conditions under which the penalty will apply to  
4 customers. This further explanation indicates that a penalty period exists when OTP signals  
5 to curtail load and the customer does not shed load. The added language indicates that the  
6 penalty charges are not intended as a means to “buy through” control but instead constitutes  
7 the unauthorized use of electricity.

8

9 Q. ARE THERE ANY OTHER PROPOSED CHANGES TO THE PENALTY RATE FOR  
10 THIS RATE?

11 A. Yes. The rate code for the Penalty on this rate schedule is currently 42-199. In order for  
12 OTP to determine what rate the Penalty billing is associated, we propose to change the  
13 Penalty rate code on this rate to 70-882.

14

15 Q. WHY HAVE YOU PROPOSED ELIMINATING THE RECOMMENDATION RELATING  
16 TO INSTALLED HEATING CAPACITY?

17 A. The current recommendations for installed heating capacity (Other Provisions paragraphs 1  
18 and 2) are not a limitation for taking service under this rider and are issues best addressed  
19 through building codes and standards.

20

21 Q. WHY ARE THE OTHER PROVISIONS PROPOSED TO BE ELIMINATED?

22 A. These recommendations have been eliminated from the rate schedule, but both have been  
23 retained in the General Rules and Regulations. Conditions for control and the issue of  
24 liability apply to multiple riders and rates and are more appropriately addressed within the  
25 General Rules and Regulations.

26

**Fixed Time of Delivery Rider –  
Rate Codes 42-301, 42-302, 42-303 (I-04S)**

1  
2  
3 Q. WHAT CHANGES ARE PROPOSED FOR THE FIXED TIME OF DELIVERY SERVICE  
4 RIDER?

5 A. OTP is recommending the following changes to these riders: combining the three Fixed Time  
6 of Delivery riders into one and adding a section to address monthly minimum bill for this  
7 rider.

8  
9 Q. WHY ARE YOU PROPOSING TO COMBINE THE THREE FIXED TIME OF  
10 DELIVERY RIDERS?

11 A. This is reflected in the list of the three services and associated rate codes as part of the  
12 Description. The primary differentiating factors between the three existing riders are the  
13 thresholds of application and their corresponding facility and energy charges. These  
14 differences are continued in the proposed single rider. Combining the three individual riders  
15 into one schedule is recommended as a means of rate schedule efficiency and will provide for  
16 a smoother transition as customers increase or decrease the amount of storage heat or cooling  
17 that is installed in their facility.

18  
19 Q. IS OTP PROPOSING MINIMUM CHARGES?

20 A. Yes. The existing rates contain monthly minimum charges and the rider is designed to  
21 continue those minimums, as adjusted due to this rate proceeding. Because the vast majority  
22 of loads served on this rider are seasonal and have little of no usage during the summer  
23 months this charge is designed to recover OTP's fixed cost of the facilities and the  
24 operational expenses associated with this rider.

25

1 **Bulk Interruptible Service –**  
2 **Rate Code 42-680 (I-06S)**

3 Q. ARE YOU PROPOSING ANY CHANGES TO THE BULK INTERRUPTIBLE SERVICE  
4 RIDER?

5 A. Yes. However, the changes to this rider are non-substantive changes that add clarity, which  
6 includes the addition of the Mandatory and Voluntary Riders matrices.

7  
8 **Irrigation Service –**  
9 **Rate Code 42-703, 42-704, 42-705, and 42-706 (M-03S)**

10 Q. ARE YOU PROPOSING ANY CHANGES TO THE IRRIGATION TIME OF USE  
11 SERVICE RIDER?

12 A. Yes. OTP is recommending the following changes to this rider: a change in the name of the  
13 service; removal of the reference to excess capacity; the provision of an alternative to the  
14 existing fixed charge requirement; removal of the reference to the expected number of peak  
15 hours; and removal of references to unnecessary restrictions.

16  
17 Q. WHAT LANGUAGE IS BEING PROPOSED FOR REMOVAL FROM THE  
18 CHARACTER AND CONDITIONS OF SERVICE PROVISION?

19 A. OTP is proposing to remove the language that identified excess seasonal capacity as a  
20 justification for the rates for this service.

21  
22 Q. WHY ARE YOU PROPOSING AN ALTERNATIVE RATE FOR RECOVERING THE  
23 DISTRIBUTION FACILITY COSTS?

24 A. Based on the input from customers, OTP is proposing a revenue neutral option that will allow  
25 customers to reduce the annual electric portion of their operating costs by making a one-time  
26 up-front payment to offset capital costs required to install service. This proposal separates  
27 the fixed charge into two components. The first component includes all of the charges  
28 associated with the costs to install the service and the second component includes the annual  
29 costs associated with the ongoing operation and maintenance.

30

1 Q. PLEASE EXPLAIN THE REASON FOR REMOVING THE STATEMENT  
2 CONCERNING EXPECTED PEAK HOURS.

3 A. The rate schedule currently contains a statement that “The number of hours at peak level is  
4 not expected to exceed 300 hours per season.” That statement is no longer accurate and we  
5 are unable to accurately predict the number of peak hours to support inserting a different  
6 number of peak hours. For this reason OTP is proposing to remove this reference.

7

8 Q. IS OTP PROPOSING TO REMOVE THE RULES AND REGULATIONS PROVISIONS,  
9 AND IF SO WHY?

10 A. Yes. OTP is proposing to remove the section entitled Rules and Regulations for Irrigation  
11 Service and eliminate the items that are unnecessary, restrictive or no longer necessary for  
12 the proper application of this rate. The remaining items that are still valid have been  
13 incorporated into the rate schedule, addressed in the Irrigation Agreement, or are in OTP’s  
14 General Rules and Regulations.

15

16 **Released Energy Access Program (REAP)**  
17 **Rate Codes (M-10S)**

18 Q. IS OTP PROPOSING CHANGES TO THE RELEASED ENERGY ACCESS PROGRAM  
19 RIDER?

20 A. Yes. We have made non-substantive changes to this rider, which include; OTP proposes to  
21 use rate code 770 for this rate and we have also modified the language in Section 10, which  
22 is the “Penalty For Insufficient Load Control”, to make it clear what the penalty is when the  
23 customer does not maintain sufficient load control during a released energy period.

24

25 **Municipal Pumping Service**  
26 **Rate Codes 42-873 (M-54S)**

27 Q. IS OTP PROPOSING CHANGES TO THE MUNICIPAL PUMPING SERVICE RIDER?

28 A. Yes. OTP recommends eliminating the statement that requires the customer to make an  
29 additional investment for three-phase service.

30

1 Q. WHY IS OTP REMOVING THE PROVISION ADDRESSING CUSTOMER  
2 OBLIGATIONS WITH RESPECT TO WIRING AND EQUIPMENT FOR THE  
3 CUSTOMER’S SINGLE-PHASE REQUIREMENTS?

4 A. Any additional equipment required to provide single-phase power from a three-phase service  
5 would be installed on the customer’s side of the meter. Consequently, it is not part of OTP’s  
6 service and the language is unnecessary.

7

8 **Controlled Water Heating Rider**  
9 **Rate Code 42 – 191 (R-91S)**

10 Q. ARE CHANGES PROPOSED FOR THE CONTROLLED WATER HEATING RIDER?

11 A. Yes. OTP is recommending the following substantive changes to this rider: elimination of  
12 reference to the Rate Zone applicable to this rider; elimination of requirements governing  
13 customer owned equipment; and establishment of a recovery time between control periods  
14 that occur on consecutive days.

15

16 Q. WHY ARE YOU PROPOSING THE ELIMINATION OF THE RATE ZONE  
17 REFERENCES?

18 A. Since this rider applies to both Rate Zone 1 and Rate Zone 9, this reference to rate zones is  
19 irrelevant.

20

21 Q. WHY HAS OTP PROPOSED ELIMINATING THE PROVISIONS RELATED TO THE  
22 DIFFERENT TYPES OF WATER HEATING EQUIPMENT?

23 A. Currently the portion of the rider entitled Additional Regulations Applying To Water  
24 Heating, Controlled Service, lists a number of limitations on the type of water heaters (their  
25 size and wattage) that are appropriate for use under this rider. OTP recommends removal of  
26 those conditions as we lack the ability to adequately police them and will seek to accomplish  
27 the same goals through discussions with customers during their decision-making process.

28

1 Q. WHY HAS OTP PROPOSED A RECOVERY PERIOD AFTER EXTENDED PERIOD OF  
2 CONTROL?

3 A. Language has been added stating that after control periods have approached 14 continuous  
4 hours, OTP will, under normal conditions, schedule a recovery period. This is to increase  
5 customer satisfaction.

6

7 **Outdoor Lighting Rider –**  
8 **Rate Code 42-741, 42-743, and 42-744 (M-42S)**

9 Q. IS OTP PROPOSING ANY CHANGES TO THE OUTDOOR LIGHTING RIDER?

10 A. Yes. OTP is recommending the following changes to this rider: redefine the output ratings of  
11 the outdoor lighting fixtures; redirect sign lighting customers to the energy only rate;  
12 restriction of the use of overhead service to fiberglass poles; removal of the reference to  
13 fluorescent fixtures; and the addition enabling termination of service to fixtures damaged by  
14 vandals.

15

16 Q. WHY HAS WATTAGE BEEN ADDED TO THE OUTPUT RATINGS?

17 A. OTP is proposing to add “wattage” to the lighting fixture rating to make it easier for  
18 customers to equate the fixture output with other lighting products.

19

20 Q. WHAT RATE DOES OTP PROPOSE FOR SIGN LIGHTING?

21 A. Since OTP currently has an energy only rider on file with the Commission that properly  
22 addresses the costs of providing service for sign lighting.

23

24 Q. WHY ARE YOU PROPOSING TO RESTRICT THE USE OF OVERHEAD SERVICE TO  
25 FIBERGLASS POLES?

26 A. Due to material restrictions, it is not feasible to install overhead service to pole top lighting  
27 fixtures mounted on fiberglass poles. For this reason OTP is proposing to remove this  
28 reference from the rider.

29

1 Q. WHY HAS THE REFERENCE TO FLUORESCENT FIXTURES BEEN REMOVED?

2 A. Due to obsolescence, OTP is proposing to remove the reference dealing with fluorescent  
3 outdoor fixtures.

4  
5 Q. IS VANDALISM OF OUTDOOR LIGHTING A POTENTIAL PROBLEM, AND IF SO  
6 HOW DOES OTP PROPOSE TO ADDRESS THAT ISSUE?

7 A. Yes, vandalism is a problem. OTP is proposing to provide for the possible discontinuation of  
8 service to fixtures damaged as a result of vandalism.

9

10 **STANDARD SERVICE AGREEMENTS**

11 Q. WHAT STANDARD FORM SERVICE AGREEMENTS ARE YOU SPONSORING?

12 A. The form service agreements I am sponsoring are in our revised rate book, Volume 3. We  
13 are proposing three standard form electric service agreements: (1) an Electric Service  
14 Agreement, (2) an Outdoor Lighting and Municipal Services Agreement, and (3) an  
15 Irrigation Electric Service Agreement. We are also proposing three customer service  
16 agreement forms: (1) a Guarantee in lieu of deposit form, (2) a Summary Billing Service  
17 Contract and (3) a Controlled Service Agreement Waiver.

18

19 Q. PLEASE DESCRIBE THE THREE STANDARD FORM ELECTRIC SERVICE  
20 AGREEMENTS.

21 A. The three standard form electric service agreements are intended for use with customers  
22 taking service under OTP Rate Schedules, and therefore they include blanks to be filled in  
23 with customer-specific information which may be necessary for OTP to adequately anticipate  
24 customer requirements. By using the proposed form agreements, both OTP and customer  
25 expectations can be determined at the earliest possible time in the provision of service. This  
26 will allow OTP to ensure that expectations are met and customers are satisfied.

27 The Electric Service Agreement is intended for use with OTP's Residential and Farm  
28 Services Rate Schedules (Sections 9.01-9.03) and Small General Service, General Service  
29 and Large General Service Rate Schedules (Sections 10.01-10.03), where appropriate. It  
30 allows for customer specifications to be included to identify single- or three-phase service,

1 nominal voltage, demand classification and amount, load factor and any special facilities that  
2 may be required.

3 The Outdoor Lighting and Municipal Services Agreement Form includes places for the  
4 entry of customer specifications appropriate for the provision of Outdoor Lighting, Municipal  
5 Pumping and/or Fire Sirens Rate Schedules (Sections 11.03-11.06).

6 The Irrigation Electric Service Agreement includes places for the entry of customer  
7 specifications associated with service under OTP's Irrigation Service Rate Schedule (Section  
8 11.02)

9  
10 Q. PLEASE DESCRIBE THE TWO STANDARD FORM CUSTOMER SERVICE  
11 AGREEMENTS.

12 A. These three agreement forms are referenced in OTP's proposed General Rules and  
13 Regulations. Section 1.04 of the General Rules and Regulations offers customers the option  
14 of providing a guaranty rather than a deposit. The standard form Guarantee in lieu of deposit  
15 is the form agreement to be executed by the guarantor and customer. It binds the guarantor  
16 and provides credit assurance to OTP.

17 Section 4.12 of the General Rules and Regulations describes the Summary billing service  
18 that may be useful for customers with multiple OTP accounts. The Summary Billing  
19 Services Contract outlines OTP and customer expectations and provides for a clear indication  
20 of what accounts are to be included in the summary billing.

21 The Controlled Service Interruptible Load rate, Section 14.05 is designed for dual fuel  
22 heating applications where a Customer's back-up system automatically turns on during a  
23 control period. Customers that do not have a back-up system that automatically turns on  
24 during a control period are required to sign a Controlled Service Agreement. This agreement  
25 requires the customer to acknowledge that the customer has been advised of risks associated  
26 with the service by not having an automatic back-up system.

27

1 **SUMMARY OF CONTRACTS WITH DEVIATIONS**

2 Q. WHAT SECTION OF THE RATE SCHEDULE BOOK CONTAINS OTP'S SUMMARY  
3 LIST OF CONTRACTS WITH DEVIATIONS?

4 A. OTP's summary list of contracts with deviations is included in Section 16 of the rate  
5 schedule book.

6  
7 Q. PLEASE DESCRIBE THE CHANGES TO OTP'S SUMMARY LIST OF CONTRACTS  
8 WITH DEVIATIONS.

9 A. The only changes we are proposing are to change Volume 1 with Volume 2 and Section 4 to  
10 Section 16.

11  
12 Q. WHEN WILL OTP FILE UPDATES TO ITS SUMMARY LIST OF CONTRACTS WITH  
13 DEVIATIONS?

14 A. Pursuant to South Dakota Administrative Rule 20:10:13:10, OTP is required to file its list of  
15 contract deviations within 30 days after the establishment of a deviation or of the expiration  
16 or cancellation of any currently listed contract deviation. Because the date of final rates as a  
17 result of this rate case is not known, OTP will work with the South Dakota Public Utilities  
18 Commission staff on the most appropriate and timely filing of updates to OTP's list of  
19 contract deviations.

20  
21  
22 **SAMPLE FORMS OTHER THAN STANDARD SERVICE AGREEMENTS**

23 Q. WHAT SAMPLE FORMS ARE YOU SPONSORING?

24 A. The form service agreements I am sponsoring are in our revised rate schedule book, Volume  
25 3, Section 17. The following sample forms are included in this section: (1) Electric Service  
26 Statement, (2) Notice of Proposed Disconnection, (3) Customer Deposit Refund Record, (4)  
27 Customer Deposit Receipt, (5) Evenly Monthly Payment, and (6) Ready Check.

1 Q. PLEASE DESCRIBE THESE SIX SAMPLE FORMS.

2 A. The six sample forms are used in some cases for all customers taking service under OTP Rate  
3 Schedules, and other cases for customers that are required to pay a deposit or customers who  
4 choose to elect one of our payment options.

5 The Electric Service Statement is used for all customers taking service under OTP Rate  
6 Schedules. In prior filings we have submitted a sample of a manual bill, which we currently  
7 still use, however, the manual bill looks just like the standard Electric Service Statement.

8 The Notice of Proposed Disconnection is used for customers that are delinquent in  
9 making payments for bills rendered under OTP Rate Schedules or are subject to  
10 disconnection for other reasons.

11 The Customer Deposit Receipt form is used when a customer is required to pay a deposit  
12 when a customer has not established good credit with OTP or is required to make a deposit  
13 for other reasons.

14 The Customer Deposit Refund Record is used when we refund a deposit to a customer  
15 that has established good credit with OTP or has terminated service with OTP.

16 The Evenly Monthly Payment form is used when customers elect to participate in our  
17 Evenly Monthly Payment plan.

18 The Ready Check form is used when a customer elects to participate in our plan that  
19 allows OTP to electronically deduct the customer's payment from the customer's checking  
20 account.

21

22 **VII. SUMMARY AND RECOMMENDATIONS FOR FURTHER RATE**  
23 **STRUCTURE CHANGES IN FUTURE RATE CASES**  
24

25 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

26 A. My testimony has covered numerous rate design and other rate schedule related changes  
27 being proposed by OTP, including (1) FCA changes to implement OTP's proposal for  
28 passing through non-asset based wholesale margins; (2) application of the FCA to OTP's  
29 current non-FCA rates; (3) our evaluation of and proposals for rate design changes, most  
30 notably those relating to OTP's effort to eliminate the declining-block pricing from its rates;

1 and (4) the substantial proposed update to OTP's rate book. These changes will help OTP  
2 achieve policy driven initiatives which Mr. Brause described in his testimony. Additionally,  
3 the changes will result in rates and options that are fair to OTP's customers. It is expected  
4 that in future rate cases OTP will continue to pursue in its rate design proposals the goals that  
5 I have discussed throughout my testimony.

6

7 Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

8 A. Yes, it does.

### Summary of Proposed Inter and Intra Class Allocations

Class	Proposed Class Increase	EPMC Method	Rate Schedule Descriptions	Proposed Intra-Class Increase	Results By Class
<b>Residential</b>	15.00%	Method 1			15.00%
			Residential Service	13.98%	
			Residential Demand Control	25.39%	
<b>Farm</b>	15.00%	N/A			15.00%
			Farm Service	15.0%	
<b>Small General Service</b>	12.53%	Method 1			12.5%
			General Service: < 20 kW	9.78%	
			General Service: >= 20 kW	13.34%	
<b>Large General Service</b>	15.00%	N/A			15.00%
			Large General Service (LGS)	15.00%	
			Real Time Pricing Rider	15.00%	
			LGS - Off Peak Rider	15.00%	
			LGS - Time of Day	0.00%	
<b>Irrigation</b>	17.0%	Method 1			17.0%
	17.0%		Irrigation Service - Option 1	17.90%	
			Irrigation Service - Option 2	12.13%	
<b>Lighting</b>	20.0%	N/A			20.0%
			Lighting - Energy Only - Service	20.0%	
			Outdoor Lighting Service	20.0%	
<b>OPA</b>	17.5%	N/A			17.5%
		N/A	Municipal Pumping Service	17.5%	
			Civil Defense - Fire Siren Service	17.5%	
<b>Water Heating</b>	33.0%	N/A			33.0%
			Water Heating - Controlled Service	33.0%	
<b>Interruptible</b>	30.0%	Method 2			30.0%
			Large Dual Fuel Rider - Option 1	36.76%	
			Large Dual Fuel Rider - Option 2	0.00%	
			Small Dual Fuel Rider	63.24%	
			Bulk Interruptible Rider	8.00%	
			Standby Service	0.00%	
<b>Deferred Load</b>	14.0%	Method 1			14.0%
			Deferred Load Rider	13.43%	
			Fixed Time of Delivery Rider	16.52%	

**Matrix of Tariff Changes**

**(R-01S) - RESIDENTIAL SERVICE, Section 9.01**

<b>Location/Section</b>	<b>Description of Change</b>
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Rate Code Description Section	Eliminated zones distinctions.
Rate Code Description Section	Information placed into a table to simplify readability.
Rate Code Description Section	Rate Zone Codes 109, 111, 119, 121, 129, 201, 209, 211, 219, 221, 229, 231, and 239 eliminated due to being obsolete and no longer used for tracking purposes. (Customers will be transferred to remaining rate 101.)
Rules and Regulations	Verbage moved to front of tariff sheet and updated to include General Rules and Regulations governing.
Rate	Created table to simplify readability; combined zones 1 and 9.
Rate	Tiered rate of First 200, Next 800, and Excess removed to create one single rate.
Monthly Minimum Charge Section	Eliminated as stand alone section. Included in rate table. Combined all customers into one charge.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Water Heating Credit	Eliminated the language for controlled service water heating option from this schedule and combined it as an option with a new rate code in the Water Heating Control Rider, Section 14.01 (new rate code 70-192).
Fuel Adjustment Clause	Revised and moved to Section 13.00.
Payment	Revised and moved to Sections 4.10 and 4.11.
Contract Period	Revised and moved to Section 1.02.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.
Definition of Seasons	Added a section to define the summer and winter season months.
Additional Rates, Rules and Regulations for Seasonal and Lake Cottage Service, and Residential Service in Rural Areas	Changed title to Seasonal Residential Service.
Additional Rates, Rules and Regulations for Seasonal and Lake Cottage Service, and Residential Service in Rural Areas	Clarified charges that apply to seasonal account at hook up (one time \$40 charge) and at the start of each season (\$32).
Additional Rates, Rules and Regulations for Seasonal and Lake Cottage Service, and Residential Service in Rural Areas	Eliminated all remaining text related to service as these are covered in Rules and Regulations.

**(R-03S) - RESIDENTIAL DEMAND CONTROL SERVICE (RDC), Section 9.02**

<b>Location/Section</b>	<b>Description of Change</b>
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Added "Commonly identified as RDC" to allow billing to name as RDC.
Rate Code Description Section	Eliminated zones distinctions.
Rate Code Description Section	Information placed into a table to simplify readability.
Rules and Regulations	Verbage moved to front of tariff sheet and updated to include General Rules and Regulations governing.
Application of Schedule	Simplified to clarify its availability to residential Customers with approved demand control systems only.
Rate	Created table to simplify readability.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Definitions of Seasons	Added a section to define the summer and winter season months.
Monthly Minimum Charge	Section was eliminated from text. It is defined in the rate table.
Billing Demand Determination	Added a provision of a 3 kW demand set for customers new to rate until demand is established.
Control Criteria Section	Renamed "Demand Signal." Updated control period wording for simplified language.
Fuel Adjustment Clause	Revised and moved to Section 13.00.
Payment	Revised and moved to Section 4.10.
Contract Period	Revised and moved to Section 1.02.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.
Requirements before rate will be applied	This section was eliminated.

**(F-61S) - FARM SERVICE, Section 9.03**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Rate Zone 9	Eliminated specific rate zone designation.
Rate Code Description	Recommend deleting Option II- Two Meters - Home use (RDC) and Farm Use. This is a closed rate, and people should be transitioned to the standard rates.
Rules and Regulations	Language moved to front of tariff sheet and updated to include General Rules and Regulations governing.
Availability	Included the options for residential service and RDC at customer choice under this section.
Rate	Eliminated tiered rates based on First 1600 and Excess, and restructured rate into a table.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Definitions of Seasons	Added a section to define the summer and winter season months.
Option I Rates	Incorporated some of the RDC language into Application of Schedule, and eliminated this section from text.
Water Heating Credit	Eliminated water heating credit from the tariff. It is included in a voluntary rider for controlled service water heating (Section 14.01).
Monthly Minimum Charge	Eliminated text on transformer capacity and incorporated into Rate table.
Cost of Energy Adjustment	Revised and moved to Section 13.00.
Payment	Revised and moved to Sections 4.10 and 4.11.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.
Additional Rules and Regulations Applying to Rural Customers	Eliminated.
Regulations Applying to Water Heating	Eliminated.

**SMALL GENERAL SERVICE - Under 20 kW, Section 10.01**

Location/Section	Description of Change
Small General Service Under 20 kW	New Tariff

**(G-01S) - GENERAL SERVICE - 20 kW or Greater, Section 10.02**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Subheader added to clarify application is intended for "20 kW or Greater" loads.
Rate Code Description Section	Eliminated zones distinctions.
Rate Code Description Section	Information placed into a table to simplify readability.
Rate Code Description Section	New tariff code (403) added for Primary service option. For 20 kW and Greater - 10.02 only.
Rules and Regulations	Verbage moved to front of tariff sheet and updated to include General Rules and Regulations governing.
Application of Schedule	Includes three-phase residential customers and all nonresidential as candidates for this rate. Voltage information was deleted as it is not the true identifier for application.
Rate	Info placed into a table to simplify and reordered to reflect actual billing application.
Rate	Minimum monthly charge identified in charges section; Monthly Minimum Charge Sections from within the text were eliminated.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Definitions of Seasons	Added a section to define the summer and winter season months.
Terms and Conditions	<b>New Rate</b> added indicating customers with demand less than 20 kW for 12 consecutive months will have the option of changing rates.
Water Heating Credit	Eliminated water heating credit from the tariff. It is included in a voluntary rider for controlled service water heating.
Monthly Minimum Charge	Moved to Rate section.
Monthly Minimum Charge	Horsepower and kva based charges are not policable. Dropped for accuracy and ease of administration.
Monthly Minimum Charge	Zone distinctions are eliminated and minimum monthly charge will be a single price point.
Determination of Demand	Demand charges will be either measured or estimated but never less than 20 kW for a 20 kW and greater customer. The minimum was increased from 3 kW (that size load will be in a separate tariff).
Determination of Monthly Facilities Charge	Added this section to show that monthly measured demand will be based on the maximum 15 consecutive minute period in order to base the Facilities charge.
Fuel Clause Adjustment	Revised and moved to Section 13.00.
Payment	Revised and moved to Sections 4.10 and 4.11.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.

**(C-02S) - LARGE GENERAL SERVICE, Section 10.03**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Eliminated zones distinctions in subheader.
Rate Code Description Section	Information placed into a table to simplify readability.
Rate Code Description Section	Added Rate Code 70-632, Transmission Service.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Application of Schedule	Eliminated language regarding the type of equipment served. Energy is not to be resold under this schedule, and is not for municipal outdoor lighting. Emergency and supplementary/Standby service supplied only as allowed by law.
Rate	Information placed into 3 tables to simplify readability for each service type (secondary, primary, and transmission).
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Definitions of Seasons	Added a section to define the summer and winter season months.
Monthly Minimum Charge	This section was cut from text and the content moved to rate table.
Determination of Billing Demand	Added clarification that billing demand.
Determination of Billing Demand	Subsections containing a "Standard minimum" formula calculation of demand and a "Special minimum" negotiated demand formula were deleted.
Adjustment for Excess Reactive Demand	Inserted word "measured" and reordered section.
Metering	Revised and moved to General Rules and Regulations.
Emergency, Supplementary or Standby Service	Revised and moved to General Rules and Regulations.
Determination of Monthly Facilities Charge	Added this section to show that monthly measured demand will be based on the maximum 15 consecutive minute period in order to base the Facilities charge.
Fuel Adjustment Clause	Revised and moved to Section 13.00.
Payment	Revised and moved to Sections 4.10 and 4.11.
Contract Period	Revised and moved to Section 1.02.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.

**COMMERCIAL SERVICE - TIME OF USE, Section 10.04**

Location/Section	Description of Change
Commercial Service - Time of Use	New Tariff.

**LARGE GENERAL SERVICE - TIME OF DAY, Section 10.05**

Location/Section	Description of Change
Large General Service - Time of Day	New Tariff.

**(P-13S) - STANDBY SERVICE, Section 11.01**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Eliminated reference to separate rate zones.
Rate Code Description Section	Information moved to table format. Several additional rate codes were added to reflect each level of service defined in the rate schedule.
Rules and Regulations	Moved the Regulations section to Rules and Regulations toward top of document from the bottom. Removed reference to detailed wiring diagram requirement from this section.
Application of Schedule	Defines availability as based in request, use of extended parallel generation systems of greater than 60 kW, and enters into a contract. Language regarding equipment voltage was eliminated.
Rate	Pricing was placed into a table and divided between firm and non-firm and by transmission, primary, and secondary service. Rate codes are applied to each level of service.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Minimum Charge	This section was eliminated from the text and moved to the Rates tables as the Minimum Monthly Bill.
Determination of Metered Demand	Changed so Metered Demand shall be based on the maximum kW registered over any period of one hour during the month in which the bill is rendered.
Contract Period	Included language to discuss Options A and B; changed initial contract period from three years to one year. Moved above Definitions Section.
Payment	Revised and moved to Sections 4.10 and 4.11.
Terms and Conditions	Modified the number of hours of firm service from 180 hours per season to 120 on-peak hours in summer season and up to 240 on-peak hours during winter season.
Terms and Conditions	Introduced guidelines for non-firm service availability during shoulder and off-peak periods.
Definitions and Useful Terms	Modified to bring terms current.

Adjustment for Municipal Payments	Removed this section.
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**(M-03S) - IRRIGATION SERVICE, Section 11.02**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Eliminated zone distinction in the subheader.
Rate Code Description Section	Information placed into a table to simplify readability. Codes renamed as Option 1: Non-Time-of Use, and Options 2: Declared Peak, Intermediate and Off-Peak.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Application of Schedule	Changed Availability to Application of Schedule.
Character and Conditions of Service	Section eliminated.
Rate	Moved to table for ease of understanding.
Facilities Charge	Added section outlying facilities charge as related to company investment in facilities.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Character and Conditions of Service	Section eliminated.
Definition of Declared, Intermediate, and Off-Peak Periods by Season	Section added to define Declared, Intermediate, and Off-Peak Periods by Season, Definitions are added.
Fuel Clause Adjustment	Revised and moved to Section 13.00.
Payment	Revised and moved to Sections 4.10 and 4.11.
Contract Period and Agreement	An explanation of why a 5 year contract period is needed based on investment by company and with terms for handling superceding rates.
Seasonal Service	Eliminated. Would be covered in contract.
Adjustment for Municipal Payment	Revised and moved to Section 4.08.
Rules and Regulations for Irrigation Service	Eliminated. Would be covered in contract or in General Rules and Regulations.

**(M-41S) - OUTDOOR LIGHTING - ENERGY ONLY DUSK TO DAWN, Section 11.03**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	"Dusk to Dawn" subheader added.
Title	Eliminated zones distinctions.
Rate Code Description Section	Rate codes placed into a table for ease of reading.
Rate Code Description Section	Added Sign Lighting Rate Code 744. This was moved from M42-S.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
	Deleted "both private and governmental entities." Replaced with "all Customers." Added clarification that tariff is available only for dusk to dawn operated lighting fixtures.
Application of Tariff	
Rate	Added Rate tables for clarity.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate. Refers to matrix for rate applicability.
Service Conditions	Limitations added indicating that company owned property cannot be attached to customer owned property.
Payment	Revised and moved to Sections 4.10 and 4.11.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.

Matrix of Tariff Changes

<b>(M-42S) - OUTDOOR LIGHTING DUSK TO DAWN, Section 11.04</b>	
<b>Location/Section</b>	<b>Description of Change</b>
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	"Dusk to Dawn" subheader added.
Title	Eliminated zones distinctions.
Rate Code Description Section	Rate codes placed into a table for ease of reading.
Rate Code Description Section	Removed Sign Lighting from tariff.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Application of Tariff	Added clarification that tariff is available only for dusk to dawn operated lighting fixtures.
Rate	Wattage column was added to rates table.
Rate	Lighting fixtures added to rates table.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate. Refers to matrix for rate applicability.
Sign Lighting	Moved to 11.03 (M-41S) Outdoor Lighting Energy Only.
Underground Service	Clarified footage for the standard amount of wire the Company will supply.
Equipment and Service Supplied by the Company	Added explanation of fixture types.
Mounting Locations	Eliminated this section; the mounting location concerning pole ownership is already covered in the language under Equipment and Service Supplied by the Company.
Service Conditions	Limits that company owned property cannot be attached to customer owned property Discretion to discontinue service in cases of vandalism was added.
Contract Period	Revised and moved to Section 1.02.
Payment	Revised and moved to Sections 4.10. and 4.11
Adjustment for Municipal Payments	Revised and moved to Section 4.08.

<b>(M-54S) - MUNICIPAL PUMPING SERVICE, Section 11.05</b>	
<b>Location/Section</b>	<b>Description of Change</b>
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Footer	Updated for current regulatory action.
Title	Eliminated zones distinctions.
Rate Code Description Section	Added Primary Service 50-874.
Rate Code Description Section	Placed in table for ease of reading.
Rules and Regulations	Moved to top to refer to General Rules and Regulations document.
Application of Schedule	Discount for losses not appropriate; language eliminated.
Application of Schedule	Deleted exception to municipal buildings adjacent to, but not incidental to the pumping operation, may not be served on this rate. Added stipulation that the company reserves the right to totalize loads.
Rate	Pricing for each rate was placed into a table with monthly minimum billing defined in the table.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Monthly Minimum Charge	Removed as a separate section. Included in rate pricing table.
Fuel Clause Adjustment	Revised and moved to Section 13.00.
Payment	Revised and moved to Section 4.10.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.
Definitions of Seasons	Added a section to define the summer and winter season months.

**(M-59S) - CIVIL DEFENSE - FIRE SIRENS, Section 11.06**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Updated for current regulatory action.
Title	Eliminated zones distinctions.
Title	Renamed as "Civil Defense Fire Sirens."
Rules and Regulations	Added the reference to General Rules and Regulations.
Rate	Placed in rate box for readability.
Rate	Added Monthly Minimum to rate box.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Other Siren Services	Modified to remove addition of demand for sirens served with other tariff services.
Service Conditions	Section added to indicate that additional charges will apply when nonstandard distribution services are needed. Also provides right for periodic review of loads.
Customer Connection Charge	Section moved to General Rules and Regulations.
Payment	Revised and moved to Section 4.10.
Adjustment of Municipal Payments	Revised and moved to Section 4.08.

**PURCHASE POWER RIDERS - APPLICABILITY MATRIX, Section 12.00**

Location/Section	Description of Change
Purchase Power Riders	Added the applicability matrix of Purchase Power Riders.

**(P-09S) - SMALL POWER PRODUCER RIDER NET ENERGY BILLING, Section 12.01**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Description	Occasional Delivery Energy Service added as description to Rate Code
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.

**(P-10S) - SMALL POWER PRODUCER RIDER TIME OF DELIVERY ENERGY SERVICE  
 Section 12.02**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Rate Code Description Section	Eliminated zones distinctions, and replaced with description of rate.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.

**(P-11S) - SMALL POWER PRODUCER RIDER DEPENDABLE SERVICE, Section 12.03**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Rate Code Description Section	Eliminated zones distinctions.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.

**MANDATORY RIDERS - APPLICABILITY MATRIX, Section 13.00**

Location/Section	Description of Change
Mandatory Riders	Added the applicability matrix of Mandatory Riders.

**(M-60S) - ENERGY ADJUSTMENT RIDER, Section 13.01**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Title	Name changed from Fuel Adjustment Clause to Energy Adjustment Rider, indicating status as a rider to other schedules.
Adjustment	Base cost of energy adjusted to reflect current costs.
Nonasset Based Margins, Number 9.	Proposal to share 15% of non-asset based margins.
Footer	Font changed; signer name and information/date changed.

**(M-67S) ENERGY EFFICIENCY PARTNERSHIP (EEP) COST RECOVERY RIDER, Section 13.04**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Footer	Font changed; signer name and information/date changed.

**VOLUNTARY RIDERS - AVAILABILITY MATRIX, Section 14.00**

Location/Section	Description of Change
Voluntary Riders	Added the applicability matrix of Voluntary Riders.

**(R-91S) - WATER HEATING CONTROL RIDER, Section 14.01**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Renamed as Water Heating Control Rider for clarity and organization.
Rate Code Description Section	Eliminated zones distinctions; created table for readability; added 70-192 rate code (water heating credit for direct control water heating) to rider and increased the monthly credit.
Application of Schedule	Simplified to clarify its availability to residential and nonresidential alike.
Application of Schedule	Removed limitations on water heaters that may be served on this rate.
Rate	Created table to simplify readability; added a new rate code (192) for non-metered controlled water heaters.
Monthly Minimum Charge	Moved to rate table.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Terms and Conditions for Rate 191	Added section to indicate that Rate 191 requires a separate meter.
Terms and Conditions for Rate 192	Added section to indicate that Rate 192 does not require a separate meter and consists of a bill credit.
Control Criteria	A new section was added and control limitations pulled in from the application of schedule section to aid understanding of terms.
Definitions of Seasons	Added a section to define the summer and winter season months.
Equipment Supplied	Provides commitment that company will supply and maintain control equipment.
Fuel Adjustment Clause	Revised and moved to Section 13.00.
Payment	Revised and moved to Section 4.10 and 4.11.
Contract Period	Revised and moved to Section 1.02.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.
Additional Regulations Applying to Water Heating, Controlled Service	Limitations were removed as they related to equipment choices or are covered in General Rules and Regulations.

**REAL TIME PRICING RIDER, Section 14.02**

Location/Section	Description of Change
Large General Service - Time of Day	New Tariff.

**LARGE GENERAL SERVICE RIDER, Section 14.03**

Location/Section	Description of Change
Large General Service Rider	New tariff.

**(I-01S) - CONTROLLED SERVICE - INTERRUPTIBLE LOAD RIDER - CT METERING  
 (Large Dual Fuel), Section 14.04**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Changed title name to reference CT Metering Rider, added commonly used name.
Title	Removed subheader zones distinction and load size distinctions.
Rate Code Description Section	Rate codes added to table to simplify readability.
Rate Code Description Section	Limitation by load size (80 kW) removed and replaced with distinction that CT metering will be in use.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Availability	Changed header name from Application of Schedule to Availability for uniformity with other riders.
Availability	Changed language to allow minimum loads to allow for manufacturers' restrictions and described Options 1 and 2.
Rate	Charges placed into a table to make more understandable. Penalty periods defined within its own section (moved below Definitions of Seasons Section).
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Definitions of Seasons	Added a section to define the summer and winter season months.
Penalty Periods - Option 1 Only	Added text to a separate section to clarify that the penalty rate is not intended as a ride through control option.
Control Criteria	Changed language to clarify the hours of control and variations by season.
Determination of Monthly Facilities Charge	Added this section to show that monthly measured demand will be based on the maximum 15 consecutive minute period in order to base the Facilities charge.
Determination of Control Period Demand - Option 2 only	Added text to a separate section to clarify demand period under option 2.
Monthly Minimum Charge	Removed as a separate section. Included in rate pricing table.
Equipment Supplied	Section simplified to indicate company will supply metering and control equipment.
Other Provisions	Removed provisions related to equipment recommendations and limitations. Some provisions moved to General Rules and Regulations
Customer Connection Charge	Revised and moved to Section 1.04.
Payment	Revised and moved to Sections 4.10 and 4.11.
Contract Period	Revised and moved to Section 1.02.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.

**(I-02S) - CONTROLLED SERVICE - INTERRUPTIBLE LOAD SELF RIDER  
 CONTAINED METERING (Small Dual Fuel), Section 14.05**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Changed to eliminate duplicate titles with size differentiation only; added commonly used name, and referenced to self-contained metering.
Title	Removed subheader zones distinction and load size distinctions.
Rate Code Description Section	Rate codes added to table to simplify readability.
Rate Code Description Section	Limitation by load size (less than 80 kW) removed and replaced with distinction that self-contained metering will be in use.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Availability	Changed header name to Availability for uniformity with other riders.
Availability	Changed language to allow minimum loads to allow for manufacturers' restrictions.
Availability	New language added stating that if backup is not automatic a waiver needs to be signed.
Rate	Charges placed into a table to make more understandable.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Definitions of Seasons	Added a section to define the summer and winter season months.
Penalty Periods	Added text to a separate section to clarify that the penalty rate is not intended as a ride through control option.
Control Criteria	Changed language to clarify the hours that are controlled and changed seasons.
Cost of Energy Adjustment	Section and exception to cost of energy charges removed.
Monthly Minimum Charge	Removed as a separate section. Included in rate pricing table.
First Three Years	Section removed.
Equipment Supplied	Section simplified to indicate company will supply metering and control equipment.
Other Provisions	Section removed. Eliminated those that pertain to building codes. Remaining are covered in General Rules and Regulations.
Payment	Revised and moved to Sections 4.10 and 4.11.
Contract Period	Revised and moved to Section 1.02.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.

Matrix of Tariff Changes

**(I-03S) - CONTROLLED SERVICE - DEFERRED LOAD RIDER (Thermal Storage), Section 14.06**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Changed to add "Rider" and commonly used name "thermal storage."
Title	Eliminated zones distinctions in subheader.
Rate Code Description Section	Rate codes placed in table for ease of reading.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Availability	Changed header name to Availability for uniformity with other riders.
Availability	Clarified availability for residential and nonresidential.
Availability	Electric water heating added to primary load types.
Availability	Deleted, "used for both heating and cooling."
Availability	Changed language to include minimum loads to allow for manufacturers' restrictions.
Rate	Information placed into a table to simplify readability.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Definitions of Seasons	Added a section to define the summer and winter season months.
Penalty Periods	Added text to a separate section to clarify that the penalty rate is not intended as a ride through control option.
Control Criteria	Changed language to clarify the hours that are controlled.
Monthly Minimum Charge	Removed as a separate section. Included in rate pricing table.
Equipment Supplied	Section simplified to indicate company will supply metering and control equipment.
Other Provisions	Eliminated those that pertain to building codes. Remaining are covered in General Rules and Regulations.
Fuel Adjustment Clause	Revised and moved to Section 13.00.
Customer Connection Charge	Revised and moved to Section 1.04.
Payment	Revised and moved to Sections 4.10 and 4.11.
Contract Period	Revised and moved to Section 1.02.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.

**(I-04S) - FIXED TIME OF DELIVERY RIDER (Fixed TOD), Section 14.07**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed
Title	Changed to add "Rider" reference and commonly identified name Fixed TOD.
Title	Removed subheads as three rider schedules are being combined into one. Distinction by zones eliminated in subheader.
Rate Code Description Section	Information for three levels of service were combined for ease of reading.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Availability	Reworked to make for broader availability across various load sizes.
Rate	Pricing for each rate was placed into a table with monthly minimum billing defined in the table.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Definitions of Seasons	Added a section to define the summer and winter season months.
Penalty Periods	Added text to a separate section to clarify that a penalty applies for unauthorized use of electricity.
Control Criteria	Changed language to clarify the hours energy is provided. Hours have been adjusted 11 pm to 7 am to 10 pm to 6 am.
Equipment Supplied	Section simplified to indicate company will supply metering and control equipment.
Other Provisions	Eliminated those that pertain to building codes. Remaining are covered in General Rules and Regulations.
Customer Connection Charge	Revised and moved to Section 1.04.
Payment	Revised and moved to Sections 4.10 and 4.11.
Contract Period	Revised and moved to Section 1.02.
Adjustment for Municipal Payments	Revised and moved to Section 4.08.

**AIR CONDITIONING CONTROL RIDER (Cool Savings), Section 14.08**

Location/Section	Description of Change
Air Conditioning Control Rider	Added Rider in SD.

**(M-15S) - VOLUNTARY RENEWABLE ENERGY RIDER (TailWinds Program), Section 14.09**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Added commonly identified name TailWinds Program.
Title	Removed subheaders as three rider schedules are being combined into one. Distinction by zones eliminated in subheader.
Rate Code Description Section	Created table for easier readability.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Availability	Added 100 kWhs or more of usage per month stipulation.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
Certain Tariffs Unavailable	Moved some wording to Availability section. Removed reference to particular schedules in text - this is replaced by the Applicability Matrices of Riders.
Rate	Added "contracted block."
Payment	Revised and moved to Section 4.10.
Terms and Conditions	Revised this section for better understanding.

**(M-10S) - RELEASED ENERGY ACCESS PROGRAM (REAP) RIDER, Section 14.11**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Changed title terminology from "Tariff" to "Rider."
Title	Eliminated zone distinctions in subheader.
Rate Code Description Section	Created table for easier readability.
Rules and Regulations	Added the reference to General Rules and Regulations toward top of document.
Application	Changed title to Availability.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.
10. Penalty for Insufficient Load Control	Restructured language for explaining Customer's liability concerning replacement energy.

**(I-06S) - BULK INTERRUPTIBLE SERVICE, Section 14.12**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Title	Added term "Rider." Removed subhead zones distinction.
Rules and Regulations	Moved the reference to General Rules and Regulations toward top of document from the bottom.
Availability	Changed from Application of Schedule to Availability.
Rate	Information placed into a table to simplify readability.
Minimums	Reference to contract removed.
Mandatory and Voluntary Riders	Added a section to indicate that total billing may be affected by riders attached to the use of this rate.

**(Old Vol. I, Section No. 2, Sheet No. 2) COMMUNITIES SERVED, Section 15.00**

Location/Section	Description of Change
Header	New logo added, page numbers, volume number, and formatting changed.
Footer	Font changed; signer name and information/date changed.
Rate Zone	Removed designation as zones distinctions are not used elsewhere.
Listing	List organized alphabetically and moved communities located outside of the South Dakota service area to their respective states' Communities Served sections.