

Direct Testimony
Christopher J. Kilpatrick

Before the South Dakota Public Utilities Commission of
The State of South Dakota

In the Matter of the Application of
Black Hills Power, Inc., a South Dakota Corporation

For Authority to Increase Rates
in South Dakota

Docket No. EL09-___

September 29, 2009

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Exhibits

None

I. INTRODUCTION & QUALIFICATIONS

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Christopher J. Kilpatrick, 625 Ninth Street, P.O. Box 1400, Rapid
3 City, South Dakota, 57701.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Black Hills Service Company as Director of Rates.

6 **Q. FOR WHOM ARE YOU TESTIFYING ON BEHALF TODAY?**

7 A. I am testifying on behalf of Black Hills Power, Inc. (“Black Hills Power”).

8 **Q: PLEASE DESCRIBE YOUR EDUCATIONAL AND BUSINESS**
9 **BACKGROUND.**

10 A. I am a graduate of Mount Marty College in Yankton, South Dakota, with a
11 Bachelor of Arts Degree in Accounting. I’m a Certified Public Accountant
12 (“CPA”), a member of the American Institute of Certified Public Accountants and
13 the South Dakota CPA Society. My work experience includes working for two
14 public accounting firms from 1994 through 1999. The first was Wohlenberg,
15 Ritzman, and Co. located in Yankton, South Dakota, and the second was Ketel
16 Thorstenson, LLP located in Rapid City, South Dakota. I began my career with
17 Black Hills in January 2000 in the internal audit department. In August of 2003 I
18 became the controller of Black Hills FiberCom until February 2005 when I
19 accepted the position of Director of Accounting – Retail Operations. In August
20 2008, I was hired as the Director of Rates and am currently performing those
21 duties.

1 **Q. BRIEFLY DEFINE YOUR DUTIES AND RESPONSIBILITIES.**

2 A. I am responsible for the electric rates and regulatory matters and the regulatory
3 financial reporting for Black Hills Corporation’s electric utility subsidiaries. I
4 review financial information and verify that the financial reporting for each
5 subsidiary is accurate and in accordance with the rules and regulations of the
6 Federal Energy Regulatory Commission (“FERC”).

7 **II. PURPOSE OF TESTIMONY**

8 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

9 A. The purpose of my testimony is to support and explain the Cost of Service
10 (“COS”) Model presented in Volume 1 of Black Hills Power’s Application as
11 Statements A through R and supporting Schedules and Work Papers. I will also
12 describe the annualized adjustments to certain utility costs, and I will support the
13 revenue requirement. In addition, I will describe changes to the energy cost
14 adjustment tariffs.

15 **III. COST OF SERVICE MODEL OVERVIEW**

16 **Q. PLEASE DESCRIBE YOUR ROLE IN PREPARING THE COST OF**
17 **SERVICE MODEL.**

18 A. My role was to directly supervise the preparation of the per books and pro forma
19 information including the Statements, supporting Schedules and Work Papers in
20 accordance with the rules and regulations of the South Dakota Public Utilities
21 Commission.

1 **Q. IS THE COST OF SERVICE MODEL FILED TODAY CONSISTENT**
2 **WITH THE MODEL USED IN BLACK HILLS POWER'S 2006 RATE**
3 **CASE?**

4 A. Yes, the models are substantially the same.

5 **Q. PLEASE DESCRIBE THE COST OF SERVICE MODEL.**

6 A. The COS Model develops the cost to serve Black Hills Power's customers and
7 includes the calculation of return on rate base. In preparing the cost of service
8 analysis, Black Hills Power used a three step process: 1) functionalization; 2)
9 classification; and 3) allocation.

10 **Q. WHAT HAS BLACK HILLS POWER UTILIZED FOR A TEST YEAR IN**
11 **THE APPLICATION?**

12 A. Black Hills Power is utilizing a twelve month test year based on historical data,
13 ending June 30, 2009.

14 **Q. WHAT STATEMENTS HAVE YOU INCLUDED IN THE APPLICATION?**

15 A. The following is a list of the Statements provided in the application:

- 16 A. Balance Sheet
- 17 B. Income Statement
- 18 C. Statement of Retained Earnings
- 19 D. Cost of Plant
- 20 E. Accumulated Depreciation
- 21 F. Working Capital
- 22 G. Rate of Return

- 1 H. Operation and Maintenance Expense
- 2 I. Operating Revenues
- 3 J. Depreciation Expense
- 4 K. Income Taxes
- 5 L. Taxes Other Than Income
- 6 M. Overall Cost of Service
- 7 N. Allocated Cost of Service by Jurisdiction
- 8 O. Allocated Cost of Service by SD Customer Class
- 9 P. Energy Cost Adjustment Factors
- 10 Q. Description of Utility Operations
- 11 R. Coal Supply Pricing

12 In front of each Statement is a summary overview of the information included.

13 **Q. WHAT SCHEDULES HAVE BEEN INCLUDED IN THE APPLICATION?**

14 A. Schedules have been included, where applicable, to provide supporting
15 documentation and calculations for the Statements listed above. For example,
16 Schedules H-1 through H-15 support Statement H, Operation and Maintenance
17 Expense. These Schedules detail the expense adjustments that have been made
18 and summarized in Statement H.

19 **Q. WHAT WORK PAPERS HAVE BEEN INCLUDED IN THE**
20 **APPLICATION?**

21 A. Work Papers 1 through 5 have been included in Section 5. These

1 Work Papers show additional calculations in support of numbers for the
2 Schedules.

3 **Q. EXPLAIN HOW THE COSTS TO PROVIDE SERVICE TO BLACK**
4 **HILLS POWER’S CUSTOMERS WERE DEVELOPED.**

5 A. The starting point to determine the cost to serve customers is the per books
6 financial statements for the test year, kept and recorded in the normal course of
7 business, in compliance with FERC rules and regulations. Adjustments for
8 known and measurable items were then made to the per books financial statements
9 to determine the pro forma costs and revenue requirement.

10 **Q. IS BLACK HILLS POWER PROPOSING ANY ADJUSTMENTS TO THE**
11 **COST OF SERVICE?**

12 A. Yes, Black Hills Power is incorporating pro forma adjustments to the test year that
13 are known and measurable and will be used and useful prior to new rates going
14 into effect on the in service date of Wygen III, but not before March 1, 2010.
15 Known and measurable adjustments to the per books financial statements include:
16 1) adjusting expenses to a normal expense in a normal year to serve the customer
17 base; 2) including additional non-revenue producing rate base that will be used to
18 serve customers at the time the new rates go into effect; and 3) adjustments to
19 revenue for a normal year.

1 **Q. PLEASE SUMMARIZE THE SIGNIFICANT ADJUSTMENTS THAT**
2 **HAVE BEEN MADE TO BLACK HILLS POWER'S COST OF SERVICE**
3 **MODEL.**

4 A. Adjustments have been made for rate base in Statements D, E, and F and in
5 Section M. Expense adjustments have been included in Statements H, J, K, and L.
6 Revenue adjustments are included in Statement I. The most significant known and
7 measurable adjustment relates to Wygen III. This adjustment includes additions to
8 rate base, as well as changes to the COS expenses to reflect projected increases in
9 operation and maintenance costs for a full year of operations.

10 **IV. RATE BASE**

11 **Q. PLEASE DESCRIBE RATE BASE.**

12 A. Rate base is the value established by a regulatory authority, upon which a utility is
13 permitted to earn a specified rate of return as shown on Statement M. Rate base
14 begins with the amounts of all fixed asset accounts for Black Hills Power as of
15 June 30, 2009, as shown on Statement D, reduced by Accumulated Depreciation
16 and Amortization as shown on Statement E. We are using a 12-month historical
17 test year ending June 30, 2009 as a starting point. Additional rate base is then
18 added to reflect expected non-revenue producing capital additions in July 2009
19 through March 31, 2010 as shown on Statement D page 2. We also included
20 additional depreciation in the COS expense along with a corresponding increase in
21 accumulated depreciation, thereby decreasing rate base. Rate base also includes a
22 component of working capital as shown on Statement F. The final component of

1 rate base is the other rate base reductions, such as deferred federal income taxes as
2 it relates to the timing difference of book depreciation and tax depreciation
3 expense. These amounts can be found on Schedule M-1 and M-2.

4 **Q. PLEASE EXPLAIN HOW THE ADJUSTMENTS TO RATE BASE WERE**
5 **DETERMINED.**

6 A. The adjustment for Wygen III construction costs was prepared using the actual
7 costs incurred as of June 30, 2009, together with the projected remaining costs to
8 complete the project. Schedule D-10 provides itemized detail of the project
9 construction costs. A more detailed explanation of these costs is included in Mark
10 Lux's testimony. The adjustment for non-Wygen III additions for July 2009
11 through March 2010 are further described in Schedule D-11.

12 **Q. PLEASE EXPLAIN COLUMN E, TRANSFER TRANSMISSION PLANT IN**
13 **SERVICE ON STATEMENT D PAGE 2.**

14 A. Most of Black Hills Power's transmission assets are segregated from the other
15 utility assets because they are regulated by FERC and Black Hills Power is
16 obligated to pay for its transmission service under the Joint Open Access
17 Transmission Tariff.

18 **A. WYGEN III**

19 **Q. PLEASE DESCRIBE THE ADJUSTMENT FOR WYGEN III.**

20 A. Schedule D-10 shows the capital costs for building Wygen III of \$247,077,894.
21 This amount was reduced to account for the sale of 25 percent ownership of the
22 plant to Montana Dakota Utilities (MDU). In addition, Black Hills Power

1 presently provides 23 megawatts of base load resource to the City of Gillette
2 pursuant to a Power Purchase Agreement. The parties are negotiating to convert
3 this Power Purchase Agreement to a cost of service or similar arrangement.
4 Therefore, the assumption of this Application is that only 52 percent of Wygen III
5 will be included in the COS Model for the customers of Black Hills Power, or
6 \$128,480,505.

7 **Q. WHAT OTHER ADJUSTMENTS WERE MADE TO THE COST OF**
8 **WYGEN III?**

9 A. Black Hills Power expects to be able to claim the 50 percent bonus depreciation
10 expense for tax purposes with respect to Wygen III that will result in additional
11 deferred income taxes. Pursuant to the American Recovery and Reinvestment Act
12 of 2009 (Stimulus Package), companies are permitted to expense 50 percent of the
13 value of the asset for tax purposes as depreciation in the first year with the
14 remaining 50 percent subject to normal tax depreciation. Bonus depreciation does
15 not mean that the asset gets more depreciation than any other assets; it simply
16 means that tax depreciation is accelerated into the first year. To be eligible for
17 bonus depreciation, the asset must meet certain requirements that include being
18 placed in service in 2010 and applies only to construction costs incurred by the
19 end of 2009. This is an extension of the bonus depreciation provisions contained
20 in the Economic Stimulus Act of 2008. See Schedule M-2 for the calculation.

1 **Q. HOW WERE THE ADDITIONAL MATERIALS AND SUPPLIES**
2 **DETERMINED FOR WYGEN III?**

3 A. The additional materials and supplies are based on the critical need of the plant to
4 always have these items on hand; thereby reducing the amount of lost production
5 time. The plant operations department provided the listings of items along with
6 the current market prices expected to be paid during 2009, see Schedule F-4.

7 **B. WORKING CAPITAL**

8 **Q. HOW WAS WORKING CAPITAL CALCULATED AND INCLUDED IN**
9 **RATE BASE?**

10 A. Working Capital, as shown on Statement F, is comprised of four components. The
11 first is cash working capital as determined from a lead/lag study. The others are
12 fuel stock, materials and supplies, and prepaid expenses using their balances on
13 June 30, 2009, with known and measurable adjustments. The final adjusted
14 balance of \$19,732,187, as shown on Statement F, is included as part of rate base.

15 **Q. DESCRIBE HOW THE CASH WORKING CAPITAL AMOUNT WAS**
16 **DETERMINED.**

17 A. We prepared a per books and an as adjusted cash working capital (lead/lag)
18 amount for this rate case. The per books lead/lag is located on Schedule F-3 page
19 1 and the adjusted lead/lag is on Schedule F-3 page 2. The adjusted lead/lag study
20 is used as a component of rate base.

21 **Q. HOW WERE THE EXPENSE LEAD DAYS CALCULATED ON**
22 **SCHEDULE F-3?**

1 A. The expense lead days are the actual days between when a service is received and
2 when payment is made for those services. To determine the expense lead days for
3 each expense category, we reviewed a sample of invoices paid from that category
4 and determined the average number of days it took to pay each of those invoices.
5 The expense per day is calculated by taking the total expense per category divided
6 by the number of days in the year. Finally, that expense per day for each category
7 is multiplied by the expense lead days for that category to determine the expense
8 dollar days for each category. Line 41 of Schedule F-3 page 2 contains the
9 combined total of the expense dollar days in column (d) and the combined total of
10 the expense per day in column (b) for all the expense categories. The total in
11 column (d) was then divided by the total in column (b), resulting in the expense
12 lead days of 42.81, which is shown on line 44 of Schedule F-3 page 2.

13 **Q. CAN YOU DESCRIBE HOW THE REVENUE LAG DAYS WERE**
14 **CALCULATED?**

15 A. This is a four step process:

16 1) The first step in the calculation was to determine the midpoint of service for
17 each revenue month. The total days of the year were divided by 12, and
18 then by 2, to determine the midpoint of the service month.

19 2) The second step was to determine the amount of lag days between when the
20 meter is read and when the customer is billed. This was completed by
21 using the Company's billing system and calculating that amount on a
22 monthly basis, and then averaging that amount per month and then per year.

1 3) The third step was to review the number of days a customer is given to pay
2 the bill prior to late fees being charged.

3 4) The final step in the calculation was to add the above three results together
4 to determine the total revenue lag days of 43.64.

5 **Q. HOW WAS THE FINAL NET CASH WORKING CAPITAL AMOUNT**
6 **CALCULATED ON SCHEDULE F-3 PAGE 2, LINE 49?**

7 A. We first determined the net days, which is the difference between the revenue lag
8 days and the expense lead days. The resulting net days of 0.83 was then
9 multiplied times the average expense used per day. This amount was then reduced
10 by the taxes collected, as shown on line 48, to determine the final Net Cash
11 Working Capital amount which is a component of rate base.

12 **C. OTHER RATE BASE REDUCTIONS**

13 **Q. WHAT OTHER REDUCTIONS TO RATE BASE WERE MADE?**

14 A. Consistent with the last rate case, deferred federal income tax related to
15 accelerated depreciation, customer deposits, advances for construction, and
16 pension related costs are included as reductions to rate base, as shown on Schedule
17 M-1.

18 **V. ADJUSTMENTS TO THE COST OF SERVICE EXPENSES**

19 **Q. PLEASE DESCRIBE THE COST OF SERVICE.**

20 A. The Cost of Service is the total expenses needed to operate Black Hills Power
21 which are passed on to customers dollar for dollar, that is, without Black Hills
22 Power earning any net income on those expenses.

- 1 1) Statement H shows the operating and maintenance expenses using the detail
2 cost by FERC account.
- 3 2) Statement J is the calculation of depreciation expense.
- 4 3) Statement K shows the calculation of federal income tax expense.
- 5 4) Statement L calculates taxes other than federal income taxes - such as
6 federal payroll taxes and property taxes. All these Statements are
7 summarized on Statement M to show a per books rate of return, and the pro
8 forma Cost of Service.

9 **Q. PLEASE EXPLAIN THE ADJUSTMENTS FOR THE COST OF SERVICE**
10 **ON STATEMENT H.**

11 A. Several adjustments were made to the COS expense as shown on Statement H,
12 columns (b) – (m). Statement H starts with the per books information for the
13 twelve months ending June 30, 2009, by FERC account number. Each adjustment
14 has a column on this page and a supporting Schedule to show how the adjustment
15 was determined.

16 **Adjustment (b):** The adjustment of \$1,624,679 on Schedule H-1 represents the
17 actual and projected wage increases. These amounts are calculated using an
18 average of union negotiated wage increases and expected non-union wage
19 increases, together with the costs associated with additional employees needed for
20 operations. Richard C. Loomis’ testimony provides further information on the
21 additional employees needed.

1 **Adjustment (c):** Schedule H-5 contains the corporate costs charged to Black
2 Hills Power from the Service Company for the twelve months ending June 30,
3 2009. The per books amount is then increased to the budgeted amount for 2010
4 for the Service Company costs allocated to Black Hills Power. The 2010 Service
5 Company budget was developed from allocation percentages based on information
6 projected as of December 31, 2009. The adjustment is an increase of \$1,505,386
7 to the COS expense. The testimony of Anthony Cleberg contains additional
8 information regarding the Service Company costs and the allocation methods.

9 **Adjustment (d):** Schedule H-6 provides a detailed listing by FERC account of
10 projected expense amounts to operate and maintain Wygen III during a normal
11 year. This adjustment is \$3,352,386 for Black Hills Power's 52 percent
12 ownership. Additional information is shown in the testimony of Mark Lux.

13 **Adjustment (e):** This adjustment of \$3,596,934 is shown on Schedule H-7 and
14 represents Black Hills Power's projected coal costs for producing electricity from
15 Wygen III during a normal twelve month operating year.

16 **Adjustment (f):** Schedule H-8 shows the total costs related to generation dispatch
17 and scheduling. These costs are allocated to the parties contracting for services
18 based on total power plant capacity. The adjustment of \$81,080 is for MDU's 25
19 percent ownership and a third party's 23 percent ownership of Wygen III as it
20 relates to generation dispatch and scheduling. This method is the same as the last
21 rate case, except now Black Hills Power provides services to its affiliates
22 Cheyenne Light, Fuel & Power Company, Black Hills Colorado Electric Utility

1 Company, LP and Black Hills Wyoming, LLC in addition to MDU and a third
2 party.

3 **Adjustment (g):** Schedule H-9 is an adjustment for purchased power and natural
4 gas costs. After Wygen III becomes operational, Black Hills Power will purchase
5 less power and use less natural gas in the combustion turbines for peak loads and
6 other needs. The projected decrease of \$11,949,938 for purchase power and
7 \$1,003,397 for natural gas are based on twelve months of operation for Wygen III.

8 **Adjustment (h):** Schedule H-10 shows an adjustment for planned plant overhauls.
9 Black Hills Power spends approximately \$5,200,000 for plant overhauls every five
10 to seven years. The adjustment is to expense a portion of the plant overhaul cost
11 each year based on the plant's planned maintenance cycle. The normalized
12 overhaul expense is \$816,620, which results in a \$670,032 reduction in expense.
13 As set forth in the Application, Black Hills Power is requesting approval to set up
14 a major maintenance account that will meet the requirements of FASB 71 to
15 establish a regulatory liability. Basically, each plant will have an annual amount
16 expensed and the offset will go to a regulatory liability. When the plant has the
17 major maintenance, the actual costs will first be applied to the regulatory liability
18 and then to expense.

19 **Adjustment (i):** The per books and pro forma transmission expenses are shown
20 on Schedule H-11. The pro forma transmission expenses are based on Common
21 Use System (FERC jurisdiction) transmission rates for Black Hills Power effective

1 January 1, 2010. This \$1,710,973 is an adjustment to the transmission costs
2 included in the test year.

3 **Adjustment (j):** The adjustments in Schedule H-12 relate to the Power Marketing
4 activities of Black Hills Power. Adjustments totaling \$41,429,578 were made for
5 costs related to coal, other fuel, purchase power, transmission, personnel costs and
6 other costs. These represent costs for energy sold by Power Marketing for
7 marketing purposes which are not used to serve Black Hills Power's load and thus,
8 not included in cost of service expense.

9 **Adjustment (k):** Schedule H-13 is a detailed listing of rate case expenses totaling
10 \$500,000 that are projected to be incurred in this rate case proceeding. The costs
11 will be amortized into expenses over a three year period with the unexpensed
12 amount also included in rate base.

13 **Adjustment (l):** The adjustment on Schedule H-14 is for the projected use of coal
14 generation for power marketing purposes. The availability of this generation for
15 marketing is due to Wygen III having a lower variable cost as compared to the
16 plants on Schedule H-14. This adjustment reduces coal costs by \$4,460,324.

17 **Adjustment (m):** Schedule H-15 has the pro forma adjustment for the price of
18 coal. This adjustment was required due to scheduled plant outages and was based
19 on the four year calendar average coal use by plant. The normalized coal usage
20 was used to determine the projected coal costs for 2010. The coal price is based
21 on Statement R pricing for 2010. This resulted in a \$1,539,886 increase from the
22 test year.

1 **Q. IS THERE AN ADJUSTMENT FOR EXPENSES RELATED TO**
2 **VEGETATION MANAGEMENT?**

3 A. No. The average vegetation management expense per books exceeded the amount
4 from the last rate case and therefore no adjustment is necessary. See Settlement
5 Stipulation, Docket No. EL06-019.

6 **VI. ADDITIONAL CHANGES TO THE COST OF SERVICE EXPENSES**

7 **Q. WHAT ADDITIONAL ADJUSTMENTS DID YOU MAKE TO THE COST**
8 **OF SERVICE?**

9 A. The depreciation expense was adjusted, as shown on Statement J, to account for
10 the new depreciation rates as established in the depreciation study completed by
11 Black & Veatch in September 2009. We also calculated the depreciation expense
12 for Wygen III for a full year of operation, \$3,494,670, and included that amount as
13 an expense.

14 **Q. HOW IS THE DEPRECIATION ADJUSTMENT CALCULATED ON**
15 **STATEMENT J?**

16 A. The depreciation adjustment is calculated by using the new depreciation rates, as
17 determined by our depreciation study, multiplied by the average adjusted plant in
18 service. The adjusted depreciation expense is then compared to the per books for
19 the test year and the difference is recorded on Schedule N-1 as the adjusted
20 depreciation expense and an increase in accumulated depreciation. This is
21 consistent with the previous rate case filed in 2006.

1 **Q. HAS ANYTHING CHANGED ON STATEMENT J FROM THE LAST**
2 **RATE CASE?**

3 A. Yes, line 12 for Other Utility Plant, represents common assets allocated from
4 Black Hills Service Company and Black Hills Utility Holdings, Inc. These
5 companies hold common assets for the corporation, such as computer networks,
6 billing, and customer service systems and software. These assets have been
7 allocated in accordance with the Cost Allocation Manuals.

8 **Q. PLEASE EXPLAIN THE REMAINING CHANGES TO THE COST OF**
9 **SERVICE MODEL.**

10 A. On Statement L, additional payroll taxes were calculated based on the known and
11 measurable adjustments described on Schedule H-1. The net payroll change was
12 multiplied by the federal payroll tax rates to determine the adjustment of \$97,885
13 to payroll taxes as shown on Schedule L-1.

14 **Q. PLEASE EXPLAIN THE SOUTH DAKOTA PUC TAX.**

15 A. This adjustment is based on the additional revenue requirement for South Dakota
16 multiplied by the gross receipts tax resulting in an additional cost of \$58,139, as
17 shown on Statement L.

18 **Q. HOW IS THE ADJUSTMENT FOR PROPERTY TAXES CALCULATED**
19 **ON STATEMENT L?**

20 A. The additional property tax is calculated based on the 12 month average of assets
21 in FERC account #106, then adding subsequent closures and multiplying by the
22 effective blended tax ratio. The effective blended tax ratio was developed based

1 on projected tax levies for a normalized twelve month operating period. The total
2 property tax adjustment is \$1,000,043 as shown on Schedule L-1.

3 **Q. HOW IS THE FEDERAL INCOME TAX CALCULATED?**

4 A. Federal income taxes are calculated based on the adjusted rate base amount on
5 Statement M and Statement G page 1, debt and equity ratios. The adjusted
6 operating income before tax amount found on Statement M, column (e), line 13 is
7 then reduced by the adjusted interest expense as calculated on Statement K page 3,
8 line 5. This resulting amount is then multiplied by the 35 percent federal income
9 tax rate.

10 **Q. WHERE DO YOU GET THE PER BOOKS REVENUE ON STATEMENT I,**
11 **PAGE 3?**

12 A. The per books revenue is from the billing system for the customers of South
13 Dakota for the test year ended June 30, 2009.

14 **Q. PLEASE DESCRIBE THE ADJUSTMENT TO OTHER NON-FIRM**
15 **REVENUE ON STATEMENT I PAGE 1.**

16 A. The other non-firm revenue adjustment represents the removal of revenue
17 associated with Power Marketing.

18 **Q. PLEASE DESCRIBE THE ADJUSTMENT TO CONTRACT SALES**
19 **REVENUE ON STATEMENT I PAGE 1.**

20 A. The contract sales adjustment as shown on Statement I page 2 is the adjustment for
21 MDU for a decrease due to MDU's ownership in Wygen III, thus reducing the
22 amount of sales provided to them. The adjustment for MEAN (Municipal Energy

1 Agency of Nebraska) is for an increase of energy sales from 20 MW to 30 MW
2 and an adjustment to the total price per MWh in accordance with their new
3 contracts.

4 **Q. PLEASE DESCRIBE THE ADJUSTMENT TO THE CITY OF GILLETTE**
5 **ON STATEMENT I PAGE 1.**

6 A. The reduction in revenue is related to the projected change in the contractual
7 obligation with the city. Black Hills Power presently provides 23 MW of base
8 load resource to the City of Gillette pursuant to a Power Purchase Agreement.
9 The parties are negotiating to convert this Power Purchase Agreement to a cost of
10 service or similar arrangement. Therefore, the 23 MW of the sale for resale
11 revenue was removed.

12 **Q. PLEASE DESCRIBE THE ADJUSTMENT TO THE ENERGY COST**
13 **ADJUSTMENT ON STATEMENT I PAGE 1.**

14 A. This revenue is removed to reset the base cost of energy as reflected in the energy
15 cost adjustment tariffs and further shown on Statement P.

16 **Q. PLEASE DESCRIBE THE ADJUSTMENT TO THE MISCELLANEOUS**
17 **SERVICE REVENUES ON STATEMENT I PAGE 1.**

18 A. The miscellaneous service revenue adjustment represents an adjustment for MDU
19 and a third party's service contracts and use of common assets in accordance with
20 the ownership documents. These revenues are necessary due to the ownership in
21 Wygen III.

1 **Q. PLEASE DESCRIBE THE ADJUSTMENT TO TRANSMISSION**
2 **REVENUE ON STATEMENT I PAGE 1.**

3 A. The adjustment to transmission revenue is for the Rapid City Converter Tie which
4 is separated out for jurisdiction allocation purposes and consistent with previous
5 Transmission Cost Adjustment filings.

6 **Q. HOW ARE THE ADJUSTED SALES FOR RESALE HANDLED ON**
7 **STATEMENT I PAGE 1?**

8 A. The remaining revenue in the sales for resale on line 12 are considered revenue
9 credits in Schedule N-1.

10 **Q. EXPLAIN HOW STATEMENT N WAS PREPARED.**

11 A. Statement N was prepared based on Black Hills Power's per book financial
12 statements as filed in the application. The allocation factors were derived from
13 data obtained from the FERC Form 1 along with a twelve month average
14 calculated for other allocation factors. Those factors allocate the rate base and
15 cost to serve customers to the separate regulatory jurisdictions.

16 **Q. EXPLAIN THE PURPOSE OF SCHEDULE N-1 AND HOW IT WAS**
17 **PREPARED.**

18 A. The purpose of Schedule N-1 is to determine the adjusted cost of service, allocated
19 by jurisdiction. Schedule N-1 is the same as Statement N, except that the amounts
20 in the total column are from the adjusted amounts for the rate base and cost to
21 serve customers. The allocation factors are the same in N-1 as N to ensure that the

1 adjusted amounts are allocated based on the same percentages as the per book
2 amounts.

3 **Q. WHAT ARE THE STEPS IN ALLOCATING RATE BASE AND**
4 **EXPENSES TO JURISDICTIONS?**

5 A. Using the adjusted rate base and cost of service, functions are then created using
6 FERC functional classifications (Production, Transmission, Distribution,
7 Customer Service, and General). Within each functional classification, an
8 allocation percentage was used to allocate rate base and costs based on the main
9 driver of the rate base or expense. For example, production facilities are allocated
10 based on demand since generation is built to handle specific demands of Black
11 Hills Power's customers. This methodology conforms to the general rate making
12 principle of cost causation.

13 **Q. EXPLAIN HOW STATEMENT O WAS PREPARED.**

14 A. Statement O was prepared based on the per book amounts in the financial
15 statements for only the South Dakota portion of the COS Model that was
16 developed in Statement N. The total South Dakota amount is then allocated to the
17 South Dakota customers based on the allocation factors developed for each rate
18 class.

19 **Q. PLEASE DESCRIBE SCHEDULE O-1.**

20 A. The calculations and allocation in Schedule O-1 are exactly like Statement O
21 except the amounts in the total column represent the adjusted, or pro forma,

1 amounts for South Dakota developed on Schedule N-1. The rate class allocations
2 used in Schedule O-1 are the same as used in Statement O.

3 **Q. ARE THERE ANY CHANGES FROM THE LAST RATE CASE TO**
4 **STATEMENT O AND SCHEDULE O-1?**

5 A. Yes. The large general and industrial customer classes have been combined.

6 **VII. ENERGY COST ADJUSTMENT CLAUSES**

7 **Q. WHAT CHANGES HAVE BEEN MADE TO THE ENERGY COST**
8 **ADJUSTMENT TARIFFS IN ANTICIPATION OF CARBON TAX**
9 **LEGISLATION?**

10 A. A clarification has been added to ensure that costs related to governmental
11 impositions on generation plants, such as carbon tax, can be recovered through
12 both the Steam Plant Fuel Cost Adjustment (“SPFCA”) and the Conditional
13 Energy Cost Adjustment (“CECA”) as those costs relate to fuel.

14 **Q. WHAT CHANGES ARE YOU PROPOSING FOR THE CECA?**

15 A. The CECA will have a new base cost amount determined by total adjusted
16 expense divided by the adjusted system energy sales. In addition, a change in the
17 stacking methodology for generation resources is proposed, whereby wind
18 resources will serve load first and be paid for first by customers. Using wind
19 energy as part of its portfolio helps Black Hills Power achieve the voluntary
20 renewable energy goal of 10 percent as set forth in SDCL § 49-34A-101. To
21 ensure economic dispatch of other resources, Black Hills Power will treat

1 renewable energy as zero cost energy for purpose of dispatch and the associated
2 energy will be the first resource attributed to serving load.

3 **Q. PLEASE DESCRIBE ANY CHANGES IN THE DEAD BAND?**

4 A. The only change to this calculation is how reduced costs from the approved base
5 amount are handled. In order to better incent Black Hills Power to find cost
6 savings, the proposal is that once the savings exceed \$1,000,000 Black Hills
7 Power will refund the amounts in excess of the \$1,000,000 savings band.

8 **Q. WHAT IS ANOTHER CHANGE TO THE CECA?**

9 A. Another change to the methodology will assign specific blocks of energy in the
10 resource stack to ensure it is paid by customers first, possibly ahead of the lowest
11 cost resource. This will ensure that blocks of energy purchased specifically for
12 Black Hills Power customers will be assigned to the cost causers.

13 **Q. PLEASE CLARIFY THE CALCULATION OF THE POWER**
14 **MARKETING REVENUE IN THE CECA CALCULATION.**

15 A. As a clarification point, if Black Hills Power sells emissions allowances or
16 renewable energy credits, the revenue will be used in the calculation of the power
17 marketing income. The CECA does not currently address this revenue and
18 markets for selling or trading these allowances are under development. As these
19 markets develop, Black Hills Power will monitor these opportunities.

1 **Q. HOW IS STATEMENT P, PAGE 3, CALCULATED FOR THE PROPOSED**
2 **CECA?**

3 A. Statement P, page 3, is calculated consistent with the previous pages of Statement
4 P. The starting point is the total other fuel per books, Statement H, line 26, plus
5 purchased power costs per books on Statement H, line 44. This amount is then
6 reduced by the cost of other fuel and purchase power used in power marketing and
7 the purchase power savings related to Wygen III. The base cost for other fuel and
8 purchased power costs is then divided by the adjusted system energy sales as
9 shown on Work Paper WP-1 to determine the base cost per kWh of \$0.00439, a
10 decrease of \$0.00378 from the base cost approved in the last rate case.

11 **Q. HOW IS STATEMENT P, PAGE 1, CALCULATED FOR THE PROPOSED**
12 **STEAM PLANT FUEL COST ADJUSTMENT?**

13 A. Statement P, page 1, was calculated starting with the total per books (FERC
14 account 501) and adjusted for Power Marketing use of steam plant fuel and to
15 increase coal expense based on projected 2010 pricing as shown on Schedule H-
16 15. An increase in coal handling was added as well as Wygen III coal usage. The
17 adjusted expense for steam plant fuel was then divided by the total system energy
18 sales as shown on Work Paper WP-1 to determine the base cost per kWh of
19 \$0.01049, which is an increase of \$0.00418 over the base cost from the last rate
20 case.

1 **Q. HOW IS STATEMENT P, PAGE 2, CALCULATED FOR THE PROPOSED**
2 **TRANSMISSION COST ADJUSTMENT?**

3 A. Statement P, page 2, is calculated using the same methodology as was used on
4 Statement P, page 1. The starting point is the total transmission expense per books
5 as shown on Statement H, line 54, plus the adjustment for power marketing
6 transmission expense as shown on Schedule H-12, line 11, plus the transmission
7 adjustment from Schedule H-11, line 20. The amounts removed and added are
8 consistent with previous Transmission Cost Adjustment (“TCA”) filings. The
9 base cost for transmission expense is then divided by the retail energy sales as
10 shown on Work Paper WP-1 to determine the base cost per kWh of \$0.00817, or
11 an increase of \$0.00218 above the base cost approved in the last rate case.

12 **VIII. SUMMARY OF COST OF SERVICE MODEL**

13 **Q. WHAT IS THE AMOUNT OF ADDITIONAL REVENUE REQUIRED**
14 **BASED ON THE COST OF SERVICE STUDY FOR SOUTH DAKOTA?**

15 A. The additional revenue amount needed after the gross up for federal income tax is
16 \$32,024,960, or 26.6 percent, as shown on Schedule I-1, page 1.

17 **Q. HOW WILL THE REVENUE REQUIREMENT BE APPLIED TO THE**
18 **RATE CLASSES?**

19 A. The revenue requirement will be applied as an across the board increase to all rate
20 classes, which is consistent with the last rate case. Additional information can be
21 found in the testimony of Mike McFadden.

1 **IX. TARIFF CHANGES**

2 **Q. PLEASE EXPLAIN THE CHANGES BEING MADE TO THE TARIFFS.**

3 A. We are requesting the Utility Controlled Residential Service be closed to new
4 customers. This current service only has three customers. It has been available
5 since 1995 and has not been utilized by customers and therefore it is not cost
6 effective to continue to maintain this rate. In addition, we are proposing to remove
7 condition number three in the Residential Demand rate code. The purpose of
8 removing this condition is to ensure that whole home instantaneous water heaters
9 are included in this rate code and therefore, will pay for the additional demand put
10 on the system.

11 **X. CONCLUSION**

12 **Q. DOES THE COST OF SERVICE MODEL RESULT IN JUST AND**
13 **REASONABLE RATES?**

14 A. Yes. The COS Model uses the per books financial statements for the test year
15 ending June 30, 2009, which contains known and measurable adjustments. The
16 effect is a straight forward application for a requested increase in base rates. The
17 increase is requested to be applied across the board to all rate classes and results in
18 just and reasonable rates for Black Hills Power's customers.

19 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

20 A. Yes, it does.