Direct Testimony and Exhibits
Christopher J. Kilpatrick

Before the Public Utilities Commission
of the State of South Dakota

In the Matter of the Application of
Black Hills Power, Inc.

For the Phase In of Rates Regarding Construction Financing Costs

Docket No. EL12-

December 17, 2012

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EXHIBITS

Exhibit CJK – 101 Customer Benefit Analysis
Exhibit CJK – 102 PIPR Tariffs – Legislative
Exhibit CJK – 103 PIPR Tariffs - Clean
Exhibit CJK - 104 Schedules:

Schedule A – Phase In Plan Rate (PIPR)

Schedule B – PIPR Quarterly Revenue Requirement Calculation

Schedule C – Customer Impact

Schedule D – Monthly CPGS Construction Costs

Exhibit CJK - 105 Cost of Service
Exhibit CJK - 106 Order from Wyoming Public Service Commission

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

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

A. I am employed by Black Hills Utilities Holdings Company as Director of Resource Planning and Rates.

Q. FOR WHOM ARE YOU TESTIFYING ON BEHALF TODAY?

A. I am testifying on behalf of Black Hills Power, Inc. ("Black Hills Power" or the "Company").

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND BUSINESS BACKGROUND.

A. I am a graduate of Mount Marty College in Yankton, South Dakota, with a Bachelor of Arts Degree in Accounting. I am a Certified Public Accountant ("CPA"), a member of the American Institute of Certified Public Accountants and the South Dakota CPA Society. My work experience includes working for two public accounting firms from 1994 through 1999. The first was Wohlenberg, Ritzman, and Co. located in Yankton, South Dakota, and the second was Ketel Thorstenson, LLP located in Rapid City, South Dakota. I began my career with Black Hills Corporation ("BHC") in January 2000 in the Internal Audit Department. In August of 2003 I became the controller of Black Hills FiberCom until February 2005 when I accepted the position of Director of Accounting –

Retail Operations. In August 2008, I was hired as the Director of Rates. In 2011, I accepted an expanded role and I am now responsible for both electric rates and resource planning.

Q. BRIEFLY DEFINE YOUR DUTIES AND RESPONSIBILITIES.

A. I am responsible for the resource planning and electric rates for BHC's electric utility subsidiaries. I review financial information and verify that the financial reporting for each subsidiary is accurate and in accordance with the rules and regulations of the Federal Energy Regulatory Commission ("FERC"). Additionally, I am responsible for electric rate cases and cost adjustment filings for all the retail electric utility subsidiaries of BHC, which include Black Hills Power, Black Hills/Colorado Electric Utility Company, LP and Cheyenne Light, Fuel and Power Company.

II. PURPOSE OF DIRECT TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The primary purpose of my direct testimony is to explain and support the Phase In Plan Rate ("PIPR" or "Phase In Plan") customer benefit analysis, tariff, rate calculation, and compliance with the South Dakota statutes.

III. SUMMARY

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. The following is a summary of my testimony:

The PIPR will save customers money because financing costs would be paid during the construction period, thereby excluding Allowance for Funds Used

During Construction ("AFUDC") from rate base. More specifically, customers will save approximately $1.3 million in the next Black Hills Power rate case by avoiding approximately $8.5 million in rate base. This is discussed further in section IV of my testimony.

For a typical residential customer, the initial rate impact will be an increase of 1.1 percent per month, or an increase to the bill of approximately $0.88 per month, for the first quarterly PIPR effective period of February 1, 2013 through April 30, 2013. Over the term of the phase in plan, the typical residential customer's bill will increase starting at around 1 percent and ending up at the completion of the phase in plan (which is currently anticipated to be October 1, 2014) at approximately 4.5 percent. Not only are there savings by having the PIPR rate in place, this helps moderate the rate increase when Black Hills Power files its next general rate case requesting rate recovery of Cheyenne Prairie Generating Station ("CPGS"). This is further discussed in section V of my testimony.

I also discuss the Phase In Plan Rate Tariff along with the calculation of the rate that is used to recover the short term financing costs from customers. That rate is calculated by determining the quarterly revenue requirement, assigning the quarterly revenue requirement to customer classes, and determining the rate based on a per kilowatt hour basis. The rate calculation is detailed in section V of my testimony.

Lastly, I discuss how the Company is compliant with §49-34A-73(2) as well as §49-34A-75. Attached as Exhibit CJK – 105 is the full cost of service analysis, and in addition I have included a projection of costs and revenue requirements related to CPGS as Exhibit CJK – 101.

IV. CUSTOMER BENEFIT ANALYSIS

Q. HOW DID THE COMPANY DETERMINE THAT THE PHASE IN PLAN IS BENEFICIAL TO CUSTOMERS?

A. As Mr. White provides in his direct testimony, the proposed Phase In Plan is intended to result in a graduated increase in customer rates over the CPGS construction period and to reduce the amount of AFUDC ultimately included in rate base when determining Black Hills Powers' revenue requirement. To support the customer benefit assumptions, an analysis of customer costs under the proposed Phase In Plan was compared to the net present value of future customer costs on a traditional AFUDC basis as shown on Exhibit CJK - 101.

Q. WHAT WAS THE RESULT OF THE COMPANY'S ANALYSIS?

A. The result of this analysis demonstrates that there is a significant savings to customers by using the proposed PIPR during construction of the CPGS by excluding AFUDC from rate base. As provided on Page 2, line 18 of Exhibit CJK - 101, Black Hills Power's South Dakota customers will save approximately $1.5 million over the life of the plant on a net present value basis by avoiding AFUDC in rate base. The net present value analysis assumes a discount rate of 8.54%. This discount rate is equal to the requested rate of return on equity of 10.25% in Black Hills Power's most recently filed rate case on December 17, 2012 ("Present Rate Case"). The utility rate of return may be different than our customers' expected rate of return. Therefore, further analysis with a discount rate of 7% and 6% is provided on Exhibit CJK – 101 page 2, showing even larger savings for customers of $2.8 million (line 24) and $3.8 million (line 30), respectively.

Q. WOULD CUSTOMERS TYPICALLY BENEFIT FROM THIS PHASE IN APPROACH?

A. A unique set of circumstances that exists today allows Black Hills Power to pursue this phase in approach resulting in significant expected benefits for customers. The primary reason this net present value analysis results in significant savings to customers is due to the historically low short term debt interest rates currently being experienced. Typically, this type of net present value analysis would not result in such significant savings to our customers, but it does in this situation because of the current spread between short term and long term debt costs.

Q. PLEASE PROVIDE ADDITIONAL ANALYSIS REGARDING THE AFUDC RATE AS COMPARED TO THE PHASE IN PLAN RATE OF RETURN.

A. To further demonstrate this spread between short term and long term debt costs, a comparison of the historical AFUDC rate to the PIPR Rate of Return for Black Hills Power is as follows:

Black Hills Power:	2010	2011	2012
AFUDC Rate	7.34%	8.20%	8.66%
PIPR Rate of Return			6.27%

Q. WHY ARE THESE RATES SO DIFFERENT?

A. These rates are different because the AFUDC rate calculation takes into account long-term debt costs, in accordance with Federal Energy Regulatory Commission Rules, whereas the design of the PIPR Rate of Return only considers expected short term debt costs. The difference in these borrowing rates is the main factor driving the significant customer benefit in the CPGS Phase In Plan net present value analysis.

Q. PLEASE PROVIDE FURTHER INFORMATION REGARDING THE NET PRESENT VALUE ANALYSIS CALCULATIONS.

A. For a further explanation of this analysis, the AFUDC revenue requirements provided on line 10 of Exhibit CJK - 101 page 2 were calculated consistent with revenue requirement methodology, including debt and equity structure and depreciation rates. While not binding on this Commission, this same revenue requirement methodology is also consistent with the Cheyenne Prairie Generating Station Certificate of Public Convenience and Necessity filed by the Company and approved by the Wyoming Public Service Commission Docket Nos. 20003-113-EA-11 and 20002-81-EA-11 (Record No. 13007). The utility discount rate equal to the rate of return of 8.54% from the Present Rate Case was then used to determine the net present value of this revenue requirement. This result of

$10,696,243 is then compared to the total revenue requirement as calculated on Exhibit CJK - 101 page 1, line 21 column (g) of 9,184,964. As illustrated, the comparison provides for substantial savings to customers by avoiding AFUDC in rate base as provided on page 2 line 18 of Exhibit CJK - 101. For purposes of this analysis, the short term debt cost assumption (Exhibit CJK - 101 page 1, line 25 column (a)) was 2%. This 2% was deemed representative for the construction period as the rate is actually lower than this today. In addition, the tax gross-up factor used in column (g) incorporates the federal income tax effect. Using discount rates of 7% and 6% in the net present value analysis provides even greater savings for customers when compared to a discount rate of 8.54%.

Q. WHY IS THE TAX GROSS-UP FACTOR USED FOR THE PHASE IN PLAN RATE AND NOT AFUDC?

A. Since the PIPR represents current revenues, Black Hills Power will incur a current federal income tax obligation. When AFUDC is recorded during construction, the federal income tax obligation is deferred.

Q. DOES THIS PIPR ELIMINATE THE NEED FOR A GENERAL RATE CASE IN THE FUTURE?

A. No. The PIPR is terminated once Cheyenne Prairie Generating Station is placed in service and included in base rates. We anticipate filing a rate application approximately 6 months prior to the in-service date for the new CPGS generation to account for the operating costs and to include the investment in rate base.

Q. DOES THIS PIPR IMPACT THE NEXT RATE CASE?

A. Yes. Having the phase in plan will benefit customers by avoiding approximately $1.3 million in the next Black Hills Power rate case by avoiding approximately $8.5 million in rate base. This benefit of avoiding $1.3 million in the next rate case will be a benefit that will be realized by customers year after year.

V. PIPR TARIFF AND RATE CALCULATION

Q. PLEASE DESCRIBE THE PIPR TARIFF.

A. Exhibit No. CJK - 103 to my testimony provides the proposed PIPR Tariff. The Tariff is designed for potential future phase in plan dockets and therefore the tariff is in a more general form. However, the Tariff does set forth the general process used to determine the quarterly revenue requirement and tariff rate that will be paid by each customer class for the Phase In Plan Rate.

Q. PLEASE EXPLAIN THE GENERAL PROCESS TO DETERMINE THE PROPOSED PIPR.

A. Generally, there are three steps involved in determining the PIPR. The first step is to determine the quarterly revenue requirement related to the Cheyenne Prairie Generating Station. The second step is to assign the quarterly revenue requirement to customer classes based on a demand allocator. The third and final step is to determine the quarterly rate on a per kilowatt hour basis.

Q. PLEASE DESCRIBE IN DETAIL THE FIRST STEP IN THE PROCESS TO DETERMINE THE PIPR REVENUE REQUIREMENT.

A. The PIPR quarterly revenue requirement is determined by establishing, on a monthly basis, the rate of return on expected construction costs, including the effect of federal income taxes. The monthly PIPR revenue requirements are then summed for the PIPR quarterly revenue requirement. The determination of the PIPR monthly revenue requirement for Black Hills Power's first quarterly rate is provided in Exhibit CJK - 104, Schedule B of my testimony and is computed as follows:

- The monthly revenue requirement is determined by starting with the Forecasted Monthly Cumulative Construction Costs (line 1) for CPGS as of the end of the month. The current forecasted monthly construction costs for Black Hills Power's share of the CPGS is provided in Schedule D for the period February 1, 2013 through September 30, 2014, assuming an in-service date of October 1, 2014. The cumulative construction costs are simply calculated by adding the current month construction cost to the prior month's cumulative construction costs.
- The Forecasted Monthly Construction Costs (line 2) represent total Black Hills Power. In order to allocate the costs to South Dakota customers, a jurisdictional allocation (line 3) is used as Black Hills Power serves customers in South Dakota, Wyoming and Montana. The allocation between states (jurisdictional allocation) is based on the production

capacity allocator that was approved in the most recent South Dakota rate case Docket No. EL09-018 as well as the most recent Wyoming rate case Docket No. 20002-75-ER-09. This jurisdictional allocation has also been used and approved by the South Dakota Commission in the Environmental Improvement Rider Dockets Nos. EL11-001 (June 2011) and EL12-029 (May 2012), as well as the Cheyenne Prairie Generating Station Rider approved in Wyoming for Black Hills Power customers (Docket No. 20002-84-ET-12 (October 2012)). The Order from the Wyoming Public Service Commission for the Black Hills Power Rider is attached to my testimony as Exhibit CJK – 106. The Forecasted Monthly Construction Costs (line 2) is multiplied by the South Dakota Jurisdictional Allocation (line 3) to determine the SD Forecasted Monthly Cumulative Construction Costs (line 4).

- The SD Forecasted Monthly Cumulative Construction Costs (line 4) are multiplied by the forecasted PIPR Rate of Return (line 5) and then divided by 12 months to determine the Monthly Return on Costs (line 6).
- The PIPR Rate of Return (line 5) is updated in each quarterly compliance filing. For Black Hills Power's first quarterly rate filing, the calculation of the PIPR Rate of Return is provided on Schedule B lines 16 through 19. This rate of return is based on the capital structure and requested return on equity that was filed in Black Hills Power's Present Rate Case. The equity structure, as well as the return on equity, will be updated to reflect the

amounts approved by the Commission based on the Present Rate Case. The Company is requesting rates to go into effect for the PIPR February 1, 2013, and the Present Rate Case rates are requested to go into effect April 1, 2013. Once the Present Rate Case is approved, the next PIPR filing will be updated to reflect the approved equity structure and return on equity. The true up process will capture any differences from our as filed rates and will flow through the balancing account; therefore, there will be no customer impact.

The debt cost will be updated in each quarterly compliance filing to reflect the forecasted rate for BHC's LIBOR borrowings under its revolving credit agreement dated February 1, 2012. This is a short term rate based on LIBOR plus 150 basis points which is BHC's borrowing cost under the agreement. (LIBOR, also known as the London Interbank Offered Rate, is an interest rate index commonly used in the United States). The 1.76% debt cost included in the calculation on Schedule B line 17 is the forecasted rate for the period February 1, 2013 through April 30, 2013. Again, this debt cost of 1.76% will be adjusted in each quarterly compliance filing to reflect the current forecast.

- Next, the PIPR Return on Equity (line 8) is determined by multiplying the SD Forecasted Monthly Cumulative Construction Costs (line 4) by the monthly Phase In Plan Equity Return (line 7). Again, the equity return was based on Black Hills Power's Present Rate Case.

- The Federal Tax Gross-up Factor (line 9) of 1.53846, or 1/(1-.35), is then used to determine the Equity Return Tax Gross Up amount (line 10). The Monthly Phase In Plan Return on Equity (line 8) is subtracted from Equity Return Tax Gross Up (line 10) to isolate the federal tax effect. This amount is then added to the Monthly Return on Costs (line 6) to establish the Monthly Revenue Requirement (line 11).
- The Monthly Revenue Requirements amounts (line 11) are then added together to establish the Quarterly Revenue Requirement amount (line 13).

Q. PLEASE PROVIDE MORE SPECIFICS OF HOW THE SHORT TERM REVOLVING CREDIT AGREEMENT RATE IS DETERMINED.

A. Again, for purposes of Phase In Plan Rate of Return, the debt component is represented by BHC's effective short term borrowing rate. As the PIPR is established, this short term borrowing rate is determined by adding 150 basis points to the forecasted LIBOR rate for the three month PIPR effective period. For example, the detailed calculation of the debt component for the PIPR effective period of February 1, 2013 through April 30, 2013 is as follows:

Phase In Plan Rate of Return – Debt Component:	
Forecasted LIBOR Rate	0.26%
BHC's Borrowing Costs	1.50%
Total Forecasted Debt Cost %	1.76%

Q. PLEASE DESCRIBE THE FINAL COMPUTATIONS FOR THE SECOND AND THIRD STEPS OF THE PROCESS.

A. The second step in establishing the PIPR is to assign the quarterly revenue requirement calculated in step one to customer classes based on a demand allocator. Since the Cheyenne Prairie Generating Station is a production asset, it will be allocated in a similar manner in Black Hills Power's next rate case in 2014. Therefore, the revenue requirement assignment to customer classes is accomplished through the use of the demand allocator that is currently used in the Transmission Cost Adjustment Tariff approved in Docket EL09-018. The allocation among customer classes is provided in Exhibit CJK - 104, Schedule A, Column A and is as follows:

Customer Class	Demand Allocator
Residential Service	34.00%
General Service Small	34.33%
General Service Large	20.73%
Industrial Service Contract	9.97%
Lighting Service	0.97%
Total	100.00%

The third and final step, as provided on Schedule A, is to net the allocated quarterly revenue requirement for each of the customer classes (Column B) and the over or under recovery recorded to the Balancing Account (Column C) and then divide the resulting Net Quarterly Revenue Requirement (Column D) by the Forecasted kWh Billing for each customer class (Column E) to determine the quarterly Phase In Plan Rate by customer class (Column F). The Balancing

Account, as described further below, will not be included in the quarterly PIPR compliance filing until the period August 1, 2013 through October 31, 2013. This delay is due to the timing of the first quarter month end close for April 2013, which will not be completed until mid-May, 2013, and when the next quarterly compliance filing will be made, which will be no later than July 1, 2013. The Forecasted kWh Billing represents the anticipated kWh sales by customer class for the quarter the PIPR is being calculated.

Q. WILL THE DEMAND ALLOCATOR CHANGE IN SUBSEQUENT PIPR FILINGS?

A. No. The intent is that these demand allocation percentages as provided in Exhibit CJK - 104, Column A, of Schedule A will remain static with each quarterly filing.

Q. WHAT ARE THE CUSTOMER IMPACTS FOR THE FIRST QUARTER PHASE IN PLAN RATES?

A. Over the term of the phase in plan, the typical residential customer's bill will increase starting at around 1 percent and ending up at the completion of the phase in plan (which is currently anticipated to be October 1, 2014) at approximately 4.5 percent. More specifically, the impact to customers for the first quarterly PIPR, effective February 1, 2013 through April 30, 2013, is provided in Exhibit CJK - 104, Schedule C. For the residential customer averaging 650 kWh usage per month, the bill increase will be approximately $0.88 per month, or 1.1%, based on currently approved Commission rates. For the commercial customer averaging 2,678 kWh usage per month, the bill increase will be approximately $4.31, or

1.4%, based on currently approved Commission rates. The PIPR and monthly billing amount will be identified as a separate line item on customers' bills and will be labeled as "Phase In Plan Rate". Customers' monthly bills will reference the Black Hills Power web-site for further explanation of definitions and rates.

Q. HOW WILL THIS NEW RATE BE COMMUNICATED TO CUSTOMERS?

A. In addition to the Public Notice requirements of the Commission, the customers' February bill with the Phase In Plan Rate will include a bill message highlighting this new rate and directing the customer to Black Hills Power's web-site for a further explanation of the PIPR and other bill components. Black Hills Power will also include a separate insert for the first monthly bill that includes the PIPR, providing further background, explanation, and benefits of the phase in plan. Finally, Black Hills Power's management and Energy Service teams will contact larger customers to explain the Phase In Plan Rate increase and the benefits to customers.

Q. REFERRING BACK TO THE TARIFF, PLEASE EXPLAIN THE BALANCING ACCOUNT.

A. A Balancing Account will be used to track under or over recovery of the revenue requirement. The amounts recorded to this account are the difference between 1) the actual quarterly PIPR revenue requirement by customer class and 2) the actual amount recovered by customer class in the respective quarter through the PIPR. The actual quarterly PIPR revenue requirement by customer class will update the forecasted quarterly PIPR revenue requirement in which quarterly rates were established with actual construction costs of CPGS incurred during the quarter and the actual LIBOR-based effective interest rate for BHC's borrowings under its short term revolving credit agreement dated February 1, 2012. As discussed earlier in my testimony, the balancing account will also include a true up for the debt and equity structure and the return on equity based on the Commission approved Present Rate Case. The actual amount recovered by customer class through the PIPR is the sum of the kWh energy sales for each month by customer class in the respective quarter multiplied by the effective applicable customer class' Phase In Plan rate. Due to cycle billing pro-rations, adjustments will be needed at the end of certain accounting periods to ensure all PIPR revenues are captured. This is consistent with other Black Hills Power cost adjustment filings. Also, as stated above, since the Company will not close the quarter month end books before the subsequent quarterly compliance filing will be due to be filed with the Commission, the Balancing Account will be included in the revenue requirement for the following quarter's compliance filing or on a one quarter delayed basis. Schedules detailing the monthly Balancing Account will be provided in future quarterly compliance filings. Further, the Balancing Account will have interest applied or credited monthly at the annual rate of seven (7) percent.

Q. WHAT IS THE TIMING OF THE QUARTERLY COMPLIANCE FILINGS AND EFFECTIVE DATES?

A. Consistent with the start of incurring costs for the CPGS, as well as, prior to construction commencing of CPGS, Black Hills Power requests the proposed quarterly PIPR be effective for the period February 1, 2013 through April 30, 2013. This PIPR will be updated on a quarterly basis with compliance filings no later than 30 days prior to the requested effective date for Commission review and audit. Anticipated future quarterly compliance filing dates are as follows:

Compliance Filing date no later than:	**Effective Period**
April 1, 2013	May 1, 2013 – July 31, 2013
July 1, 2013	August 1, 2013 – October 31, 2013
October 1, 2013	November 1, 2013 – January 31, 2014
January 1, 2014	February 1, 2014 – April 30, 2014
April 1, 2014	May 1, 2014 – September 30, 2014*
*The last quarterly compliance filing will cover a five month period anticipating an October 1, 2014 commercial operation date of Cheyenne Prairie Generating Station and new base rates.	

As provided in the PIPR Tariff (Exhibit CJK - 103), rates are considered effective on an interim basis and are subject to refund should the Commission find any issues with the quarterly rate calculation in the compliance filing; provided, however, that the rate will be considered permanent forty-five days after the effective date, subject to true-up and unless extended through Commission Order. The PIPR Tariff will terminate with the effective date of new base rates that include Black Hills Power's investment and costs of the CPGS. Any balance remaining in the Balancing Account by customer class at this time will be collected or remitted to the respective customers over the next six months from the effective date of new base rates.

Q. PLEASE EXPLAIN FURTHER WHY THE EFFECTIVE PERIOD FOR THE LAST QUARTERLY COMPLIANCE FILING IS DIFFERENT THAN THE OTHER QUARTERLY FILINGS.

A. As referenced above, the last quarterly filing will represent a five month effective period rather than three months as provided in the prior quarterly filings. Assuming an October 1, 2014 commercial operational date for CPGS, the sixth quarterly PIPR filing would be effective from May 1, 2014 through September 30, 2014. Rather than providing two separate filings – one for a three month and then another for a two month period - Black Hills Power proposes a five month period for the sixth and final PIPR filing. This final quarterly rate will also be subject to true up based on the actual construction costs and actual debt costs.

VI. COMPLIANCE WITH STATE STATUTES

Q. HAS THE COMPANY COMPLIED WITH SDCL §49-34A-74(2)?

A. Yes. The Company has filed the full cost of service analysis as Exhibit CJK – 105 and the projection of costs and revenue requirements to the date of the anticipated commercial operation of CPGS in Exhibit CJK – 101.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.