Supplemental Testimony and Exhibits
Kyle D. White

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. EL12-062

February 8, 2013

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EXHIBITS

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE COMMISSION.

A. Kyle D. White, 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 Vice President of Regulatory Affairs for Black Hills Corporation ("BHC"). Among other assignments, I am responsible for regulatory affairs for Black Hills Power, Inc. ("Black Hills Power").

Q. DID YOU PREVIOUSLY SUBMIT TESTIMONY IN THIS MATTER ON BEHALF OF BLACK HILLS POWER?

A. Yes, and I am now submitting supplemental testimony on behalf of Black Hills Power that will address the prudency and reasonableness of the decision to construct Cheyenne Prairie Generating Station ("CPGS").

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The primary purpose of my supplemental testimony is to provide additional testimony in support of CPGS, and to attach as exhibits certain testimony and documents regarding Black Hills Power's application for approval in Wyoming of a Certificate of Public Convenience and Necessity (CPCN). I provide a summary description of CPGS, and describe the Wyoming Public Service Commission's

approval of Black Hills Power's application for approval of a CPCN. Further, I discuss Black Hills Power's resource need and selection regarding CPGS, and provide evidence of the reasonableness of Black Hills Power's decision to construct CPGS.

III. SUMMARY DESCRIPTION OF CPGS PROJECT

Q. PLEASE SUMMARIZE THE CPGS PROJECT.

A. CPGS is a natural gas-fired power station that will be constructed in Cheyenne, Wyoming, providing a total of 132 MW of net generation capacity. The power station includes a natural gas-fired combustion turbine generator and a combined cycle unit, together with the ancillary equipment, electrical transmission, natural gas lines, and related equipment, land and buildings. CPGS will be owned by Black Hills Power and Cheyenne Light, Fuel and Power Company ("Cheyenne Light"), both of which are subsidiaries of BHC. The estimated total cost of CPGS is $222 million, excluding the Allowance for Funds Used During Construction ("AFUDC"). CPGS will provide Black Hills Power with 55 MW of net generation capacity. The estimated cost of Black Hills Power's ownership of CPGS is $95 million, excluding AFUDC.

The proposed Black Hills Power phase in plan will save customers money because financing costs would be paid during the construction period, thereby excluding AFUDC from rate base. Reducing construction costs by eliminating AFUDC is estimated to reduce Black Hills Power's future rate base by approximately $8.5

million, which will save customers approximately $1.3 million in the next Black Hills Power rate case.

IV. APPROVAL BY WYOMING PUBLIC SERVICE COMMISSION

Q. DID BLACK HILLS POWER AND CHEYENNE LIGHT APPLY TO THE WYOMING PUBLIC SERVICE COMMISSION FOR A CPCN FOR CPGS?

A. Yes. In 2011, Black Hills Power and Cheyenne Light jointly applied to the Wyoming Public Service Commission ("Wyoming PCS") for a CPCN ("BHP's Wyoming Filing"). Under Wyoming law, authorization by the Wyoming PSC is necessary for construction in Wyoming of generating facilities such as CPGS. Attached hereto as Exhibit A is the Updated Exhibit List of Cheyenne Light, Fuel and Power Company and Black Hills Power, Inc. ("Updated Wyoming Exhibit List"). All 43 exhibits shown on the Wyoming Updated Exhibit List, and that were admitted into evidence by the Wyoming PSC, are attached hereto as Exhibit B ("Wyoming CPCN Exhibits").

Q. PLEASE IDENTIFY THE 43 EXHIBITS FILED WITH THE WYOMING PSC.

A. Exhibits 1 through 35 constitute the original filing of Black Hills Power and Cheyenne Light for a CPCN in Wyoming, and included the direct testimony of eleven witnesses. Exhibits 1 through 35 shall be hereinafter be referred to as "Application for CPCN."

Exhibits 36 and 37 represent the notice of Black Hills Power and Cheyenne Light regarding the Wyoming Industrial Siting Permit process.

Exhibits 38, 39, 40 and 41 represent Rebuttal Testimony and related exhibits filed by Black Hills Power and Cheyenne Light.

Exhibits 42 and 43 are the testimony of myself and Christopher Kilpatrick in support of a Stipulation and Agreement entered into by Black Hills Power, Cheyenne Light and the Wyoming Office of Consumer Advocate ("OCA"), which Stipulation and Agreement shall hereinafter be referred to as "OCA Stipulation."

Except as otherwise noted, all references to exhibits in my testimony shall refer to the Wyoming CPCN Exhibits as filed in BHP's Wyoming Filing.

Q. DID BLACK HILLS POWER PRESENT OTHER TESTIMONY AND EVIDENCE REGARDING THE CPGS?

A. Yes. Black Hills Power presented oral testimony at the hearing before the Wyoming PSC held on July 31, 2012.

Q. DID THE WYOMING PSC ENTER AN ORDER APPROVING A CPCN?

Yes, at the hearing on July 31, 2012, the Wyoming PSC approved the Certificate of Public Convenience and Necessity (Docket No. 20003-113-EA-11 and 20002-81-EA-11, Record No. 13007). A written Memorandum Opinion, Findings and Order Granting Application for a Certificate of Public Convenience and Necessity (herein "Wyoming Order") was issued and filed on January 8, 2013. The Wyoming Order and the OCA Stipulation are attached hereto as Exhibit C.

Q. IS THE WYOMING ORDER BINDING ON THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION?

A. No, the Wyoming Order is not binding on this Commission. While I understand that this Commission will make its own independent determination as to the phase in plan and the reasonableness of constructing CPGS, Black Hills Power believes the Wyoming Order and the record from that proceeding are instructive in this matter.

Q. PLEASE SUMMARIZE THE SIGNIFICANT CONCLUSIONS OF LAW IN THE WYOMING ORDER.

A. The Wyoming Order is seventeen pages long, and the conclusions of law constitute approximately three pages. The significant conclusions include the following:

1. The Wyoming PSC concluded that Black Hills Power and Cheyenne Light met the good faith standard of W.S. §37-2-205(c). [Paragraph 75, Wyoming Order]

2. The Wyoming PSC concluded that there is a need for additional service which warrants construction of the proposed CPGS. [Paragraph 76, Wyoming Order]

3. The Wyoming PSC concluded that the present and future public convenience and necessity require the construction and operation of CPGS and

that a CPCN should be issued; and further that it is in the public interest that the CPCN be issued. [Paragraph 77, Wyoming Order]

V. RESOURCE NEED AND SELECTION

Q. DOES THE APPLICATION FOR CPCN DESCRIBE THE PROCESS BY WHICH BLACK HILLS POWER DETERMINED THE RESOURCE NEED AND SELECTION?

A. Yes. The Executive Summary portion of Exhibit 1 (a part of Exhibit B), at page 8, sets forth a summary of the analysis of the resource need and selection of Black Hills Power and Cheyenne Light. As noted therein, the joint ownership of a combined cycle resource by these two sister companies represents a win-win opportunity for each utility, and the Application for CPCN (Exhibits 1 to 35) outlines the process undertaken by Black Hills Power and Cheyenne Light in evaluating their respective needs. Included within the Application for CPCN are the integrated resource plans ("IRPs") for both Black Hills Power (Exhibit 16) and Cheyenne Light (Exhibit 15).

Further information regarding Black Hills Power's determination of resource need and selection is set forth in Exhibit 14 (Testimony of Eric Scherr).

Q. WHAT IS DRIVING THE FUTURE RESOURCE NEEDS OF BLACK HILLS POWER?

A. Quite simply, the future resource needs of Black Hills Power are primarily driven by the impact of environmental regulatory requirements on its existing generating

facilities. On March 21, 2011, the Environmental Protection Agency (EPA) issued National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial and Institutional Boilers ("Area Source Rules"). The deadline to comply with the Area Source Rules is March 21, 2014. The Area Source Rules are designed to reduce emissions of hazardous air pollutants from various small boilers, to include coal-fired units of 25 MW or less. Black Hills Power owns 471 MW of electric utility generation capacity. Of this 471 MW generation capacity, 81.3 MW of generation capacity is provided by three coal-fired power plants: 1) Neil Simpson I, located in Gillette, Wyoming and providing 21.8 MW; 2) Osage, located in Osage, Wyoming (consisting of three boilers of approximately 11.5 MW each) and providing 34.5 MW; and 3) Ben French, located in Rapid City, South Dakota, and providing 25 MW. Neil Simpson I, Osage (because each of the three boilers are less than 25 MW), and Ben French are subject to the Area Source Rules. Because of the Area Source Rules, Black Hills Power effectively had only three options: 1) retire Neil Simpson I, Osage and Ben French, 2) retrofit these three units with expensive new environmental controls, which would also likely require life extension upgrades of these units, or 3) convert these three units to natural gas. After a review of these three options and the costs, risks, and benefits associated with each option, Black Hills Power concluded that Neil Simpson I, Osage and Ben French should be retired. Dr. Robert Pearson, the Vice President of Environmental Services for

CH2M Hill, an environmental and engineering firm based in Denver, Colorado, reviewed and analyzed these options for use by Black Hills Power in making its decision about Neil Simpson I, Osage and Ben French. Dr. Pearson's memorandum is Exhibit 19 and Dr. Pearson's testimony is Exhibit 18.

In summary, Black Hills Power considered and analyzed the alternatives and concluded that the most cost effective plan for EPA compliance is to retire Neil Simpson I, Osage and Ben French by March 21, 2014.

Additional information regarding the Area Source Rules and its impact on Black Hills Power is set forth in Exhibit 17, pp. 2-5 (Testimony of Fred Carl).

Q. HOW DID BLACK HILLS POWER DETERMINE THAT CPGS WAS THE APPROPRIATE RESOURCE TO MEET ITS RESOURCE NEEDS?

A. Black Hills Power prepared an IRP (Exhibit 16), which identified that the preferred plan included the conversion of a combustion turbine generator to combined cycle operation, in the 2014 time frame. Consideration was given to whether siting a combined cycle resource in Cheyenne would present an opportunity for both Black Hills Power and Cheyenne Light to achieve mutual benefits for their customers. A dispatch agreement between Black Hills Power and Cheyenne Light provides the ability of these two utilities to exchange energy, which essentially eliminates transmission costs between their respective service territories. Both utilities undertook additional analysis and modeling to determine the financial impact on the completed resource plans of each utility and to assess

the benefits and risks of a jointly owned combined cycle unit. Black Hills Power undertook additional production cost modeling to verify the impact of a jointly-owned combined cycle unit on its preferred plan. This analysis was conducted because although the Black Hills Power preferred plan included the conversion of an existing combustion turbine generator to a combined cycle unit, it assumed the full output of a combined cycle would be available for Black Hills Power through the conversion of an existing combustion turbine generator. This additional production cost modeling, using only 55 MW of a jointly-owned combined cycle unit available to Black Hills Power, confirmed that the Black Hills Power base scenario, which selected a combined cycle conversion, was still the preferred plan for Black Hills Power. Based on the IRP and further analysis, it was determined that the appropriate resource for Black Hills Power is CPGS through the joint ownership of a combined cycle unit at CPGS.

The resource planning process performed by Black Hills Power concluded that joint ownership of a combined cycle unit at CPGS was reasonable and necessary to provide service to its customers in South Dakota, particularly in the context of the facts and circumstances present and available to Black Hills Power at the time the decision to proceed with such resource addition was made.

Additional information regarding Black Hills Power's determination that joint ownership of combined cycle unit at CPGS is the appropriate resource is set forth in Exhibit 38 (Eric Scherr Rebuttal Testimony).

Q. WHAT BENEFITS DOES THE COMBINED CYCLE UNIT PROVIDE TO BLACK HILLS POWER?

A. CPGS and the combined cycle unit that is a part of CPGS provide an intermediate economical resource to Black Hills Power that also provides resource diversity, lowers environmental emissions, reduces Black Hills Power's exposure to future environmental mandates or taxes, reduces reliance on the economy energy market, provides a hedge against future natural gas prices, and provides operational benefits because it operates at a lower heat rate than a combustion turbine generator, and can provide wind regulation if required in the future. The conclusion was reached by Black Hills Power that the construction of CPGS is prudent, efficient and economical and is reasonable and necessary to provide service to the South Dakota customers of Black Hills Power.

Additional information on the benefits of CPGS are set forth in Exhibit 14, pp. 22-24 and Exhibit 40, pp. 17-19.

Q. WHAT IS THE COST ESTIMATE OF CPGS?

A. The Application for CPCN contains a detailed explanation of the components of the GPGS facility (Exhibit 1, pp 13-32), which was estimated to cost $237 million, which amount included AFUDC. Black Hills Power also provided a confidential breakout of anticipated costs, with a detailed statement for each of the five elements of the Facility. See Confidential Exhibit 21. As part of the OCA Stipulation, the parties agreed to a price cap for CPGS of $222 million. Stated

another way, "the parties agree that final construction costs of no more than $222 million would result in just and reasonable rates for customers." Wyoming Order (Paragraph 41). Black Hills Power's portion of the cost of CPGS is estimated at $95 million, which does not include AFUDC.

Q. DID BLACK HILLS POWER PROVIDE CPGS COST ESTIMATES TO THE WYOMING PSC?

A. Yes, as noted above, Black Hills Power provided the Wyoming PSC with a detailed statement of anticipated costs, including a detailed statement for each of the five elements of the Facility. See Confidential Exhibit 21. And as I testified in my direct testimony, "the CPGS project has a short construction period that reduces risk, and Black Hills Corporation has a proven consistent track record of construction of major generation projects on-time and at or below budget. In fact, generation of the type being constructed at CPGS was completed just two years ago in Pueblo, Colorado, by Black Hills Colorado on-time and under budget." White Direct Testimony at p. 8.

Q. HAS BLACK HILLS POWER UNDERTAKEN TO REDUCE THE CONSTRUCTION COST OF CPGS TO BENEFIT ITS CUSTOMERS?

A. Yes. CPGS will be an owner "self-build project," managed by a Black Hills Corporation project team that has significant experience constructing power plants. The owner self-build option results in significant cost savings as compared

to an engineer, procure, construct build option. The owner self-build option increases shareholder risk, which results in reduced customer costs.

Q. DID THE WYOMING PSC ENTER A FINDING REGARDING BLACK HILLS POWER'S ESTIMATED COST?

A. Yes, the Wyoming Order, Finding of Fact Paragraph 33, summarizes the evidence regarding whether the estimated cost is reasonable, as follows:

33. In working up the costs, the Applicants relied in part on "vendor proposals, current equivalent project costs and known site development cost impacts." (Ex. 20, p. 9) The Black Hills Corporation family of companies has been active in building utility-owned generation. (TR., p. 45.) It recently completed similar CC units in Pueblo, Colorado, and has constructed several CTGs. (Tr., p. 45.) This recent experience lends credibility to the cost estimates.

Q. DID THE WYOMING PSC APPROVE A TARIFF PROVIDING FOR THE RECOVERY OF CPGS CONSTRUCTION FINANCING COSTS THAT IS SIMILAR TO THE REQUEST IN THIS APPLICATION?

A. Yes. In addition to finding that the present and future public convenience and necessity require the construction and operation of CPGS, the Wyoming PSC also approved the application of Black Hills Power to allow for recovery of the CPGS construction financing costs through a tariff, in lieu of the traditional AFUDC. The phase in rate increase requested in this Application is nearly identical in form to the CPGS tariff that was approved by the Wyoming PSC. A copy of the Order

of the Wyoming PSC is attached as Exhibit CJK- 106 to the testimony of Chris Kilpatrick.

VI. PRUDENCY AND REASONABLENESS

Q. IS THE CONSTRUCTION OF CPGS PRUDENT AND REASONABLE?

A. Yes, Black Hills Power meets the test of reasonableness of the decision under the circumstances known at the time of the decision.

First, Black Hills Power considered the Area Source Rules and the applicability of those rules to its Neil Simpson I, Osage and Ben French generating units.

Second, Black Hills Power considered whether Neil Simpson I, Osage and Ben French should be retired or retrofitted with new environmental controls and concluded that these units should be retired by March 2014.

Third, given the impending retirements of Neil Simpson I, Osage, and Ben French, there is a need for additional capacity, and Black Hills Power undertook to determine what is the appropriate resource for this needed capacity. Black Hills Power prepared an IRP, and considered the result of that IRP for a preferred plan of the conversion of a combustion turbine generator to combined cycled operation in the 2014 timeframe. Black Hills Power considered whether siting a combined cycle resource in Cheyenne, Wyoming, would be an acceptable alternative for Black Hills Power and undertook to further analyze and model the benefits and risks of doing so, including operational and environmental benefits, market risk benefits, and the benefit of resource diversity and resource location diversity. The

decision was made to construct CPGS. Black Hills Power considered the circumstances known at the time of the decision and reasonably and prudently determined that a combined cycle resource as part of CPGS was the appropriate capacity addition to meet Black Hills Power's resource needs.

Q. DID THE WYOMING PSC FIND THAT IT IS IN THE PUBLIC INTEREST THAT THE CPCN BE ISSUED?

A. Yes. Finding of Fact Paragraph 57 in the Wyoming Order reads as follows: "We find that the public interest would be served by issuing a Certificate of Public Convenience and Necessity." The last sentence of Conclusion of Law Paragraph 77 reads as follows: "It is in the public interest that the certificate be issued."

VII. CONCLUSION

Q. IS THE CONSTRUCTION OF CPGS IN THE PUBLIC INTEREST?

A. Yes. Black Hills Power made the decision that the construction of CPGS was and is prudent and reasonable, and is in the best interests of the customers of Black Hills Power. The phase in plan is likely to enhance adequate utility service by providing resources to Black Hills Power that are necessary to replace retired plants. The estimated cost of CPGS represents reasonable capital costs.

The Wyoming Order confirms that Black Hills Power made a prudent and reasonable decision, and that construction of CPGS benefits the public interest.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.