

Direct Testimony
Vance Crocker

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. EL14-___

March 31, 2014

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Exhibits

None

1 I. INTRODUCTION AND QUALIFICATIONS

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3 A. My name is Vance Crocker. My business address is 409 Deadwood Avenue,
4 Rapid City, South Dakota 57702.

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

6 A. I am the Vice President, Electric Operations, for Black Hills Power, Inc. ("Black
7 Hills Power" or the "Company").

8 Q. FOR WHOM ARE YOU TESTIFYING ON BEHALF OF TODAY?

9 A. I am testifying on behalf of Black Hills Power.

10 Q. BRIEFLY DESCRIBE YOUR EDUCATIONAL AND BUSINESS
11 BACKGROUND.

12 A. I graduated from South Dakota State University, Brookings, South Dakota, in
13 1990 with a Bachelor of Science Degree in Electrical Engineering. I am currently
14 a Registered Professional Engineer in the State of South Dakota. I was hired by
15 Black Hills Power and Light upon graduation and have been employed with the
16 Company since that time. The following is a summary of positions I have held
17 with the Company.

18 From 1990 to 2000, I worked as an Engineer responsible for the planning and
19 design of a wide array of transmission and distribution projects. From 2000 to
20 2005, I was a Transmission Planning Engineer responsible for developing long-
21 range transmission plans that ensure reliability of the transmission system. From
22 2005 to 2007, I was the Manager of Transmission Planning and Operations. In this

1 role I was responsible for transmission planning and managing the 24/7 Reliability
2 Dispatch Center for Black Hills Power and its sister utility Cheyenne Light, Fuel
3 and Power Company (“Cheyenne Light”). From 2007 to 2011, I was Director,
4 Transmission Services for Black Hills Corporation’s (“BHC”) three electric
5 utilities, Black Hills Power, Cheyenne Light, and Black Hills/Colorado Utility
6 Company, LP. In this role, I was responsible for the transmission planning
7 function and for the 24/7 Reliability Dispatch Center. From 2011 to 2013, I was
8 the General Manager, Black Hills Energy – Kansas Gas. As General Manger, I
9 was responsible for leading and managing Black Hills Energy for the State of
10 Kansas. In 2013, I was named the Vice President of Electric Operations, Black
11 Hills Power. I continue in this role today.

12 **Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS BLACK HILLS**
13 **POWER’S VICE PRESIDENT OF OPERATIONS.**

14 A. I am responsible for the financial and operational performance of Black Hills
15 Power’s electric operations. I directly oversee operating functions, including
16 electric distribution network operations, maintenance, construction, local customer
17 service, customer relations and community relations. I am indirectly involved in
18 the oversight of certain other functions that are centralized within BHC. Examples
19 of central functions include regulatory and legislative affairs, human resources, IT,
20 and customer service call center functions.

1 **II. PURPOSE OF TESTIMONY**

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

4 A. The purpose of my testimony is to provide: 1) an overview of this rate case; 2) an
5 overview of Black Hills Power's operations and business in South Dakota; 3) a
6 summary of Black Hills Power's reliability metrics and customer service efforts;
7 4) an overview of the Winter Storm Atlas driven ground patrol program; 5) a
8 discussion regarding Black Hills Power's workforce; and 6) an introduction of the
9 other witnesses testifying in this proceeding.

10 **III. RATE CASE OVERVIEW**

11 **Q. WHAT ARE THE PRIMARY REASONS FOR THIS RATE CASE?**

12 A. There are four primary reasons for this rate case. The first is the request that
13 Cheyenne Prairie Generating Station ("CPGS") be added to rate base, coinciding
14 with the in-service date of CPGS, and to add certain costs and expenses associated
15 with CPGS as adjustments to the test year. Second, Black Hills Power will make
16 significant investments in capital projects necessary to maintain, improve and
17 replace infrastructure on our system. Third, as a result of the Environmental
18 Protection Agency's ("EPA") Area Source Rules, Black Hills Power requests
19 recovery of the costs related to the decommissioning of three of its coal-fired
20 generation facilities. Fourth and finally, Black Hills Power requests recovery of
21 the costs incurred to repair damage and restore service to its customers as a result
22 of Winter Storm Atlas.

1 **Q. WHAT IS THE AMOUNT OF THE REQUESTED INCREASE IN RATES?**

2 A. As illustrated throughout the testimony offered in this docket, Black Hills Power
3 has expended costs to ensure its continued ability to provide safe and reliable
4 service in South Dakota. Black Hills Power requests authority to increase its
5 annual revenue by \$14,634,238 to cover the costs incurred since its last rate case.

6 **Q. WHAT IS CPGS?**

7 A. CPGS, which is located in Cheyenne, Wyoming, will consist of a 95 MW
8 combined-cycle combustion turbine jointly owned by Black Hills Power (55 MW)
9 and its sister utility Cheyenne Light (40 MW) and a 37 MW simple-cycle
10 combustion turbine owned entirely by Cheyenne Light. Construction of CPGS
11 began in April 2013, and is expected to be completed and in-service by October 1,
12 2014. CPGS is described in more detail in the testimony of Mark Lux.

13 **Q. WHAT ARE THE CAPITAL EXPENDITURES RELATED TO CPGS?**

14 A. The construction of CPGS is in progress as of the date of this application. There is
15 an agreed upon cost cap of \$222 million for all of the facilities at CPGS, and
16 construction costs are expected to be at or below this amount. Black Hills Power's
17 portion of the cost of construction of CPGS is expected to be approximately \$93
18 million.

19 **Q. BEYOND CPGS, WHAT ARE THE OTHER MAJOR CAPITAL**
20 **ADDITIONS THAT ARE INCLUDED IN THIS RATE CASE?**

21 A. There are a number of capital plant investments that have been made to existing
22 generation since Black Hills Power's last South Dakota rate case. In particular,

1 Black Hills Power has made major capital investments for safety and security,
2 control system upgrades, environmental issues, integrity and reliability, regulatory
3 requirements and facilities. Each of these categories of capital plant investments
4 are discussed in detail in the testimony of Mark Lux.

5 In addition, Black Hills Power has also made capital investments to its distribution
6 assets since its last rate case. For additional discussion regarding these
7 investments, please refer to the testimony of Mike Fredrich.

8 **Q. PLEASE EXPLAIN WHY BLACK HILLS POWER PLANS TO**
9 **DECOMMISSION THREE OF ITS COAL-FIRED GENERATION**
10 **FACILITIES.**

11 A. The EPA enacted the National Emission Standards for Hazardous Air Pollutants
12 for Area Sources: Industrial, Commercial, and Institutional Boilers (“Area Source
13 Rules”), which is designed to reduce emissions of hazardous air pollutants from
14 various small boilers, to include coal-fired units of 25 MW or less. Black Hills
15 Power owns three coal-fired power plants equipped with boilers of 25 MW or less
16 and therefore subject to the Area Source Rules: Neil Simpson I, Osage, and Ben
17 French. The implications of the standards set forth in the Area Source Rules
18 require either the retrofit of expensive new environmental controls on these three
19 facilities or the retirement of the affected units. Black Hills Power has concluded
20 that the most cost effective plan for its customers to achieve EPA compliance was
21 to retire Neil Simpson I, Osage, and Ben French. Decommissioning is discussed
22 in more detail in the testimony of Mark Lux.

1 **Q. PLEASE EXPLAIN WHY BLACK HILLS POWER IS REQUESTING**
2 **RECOVERY OF COSTS ASSOCIATED WITH WINTER STORM ATLAS.**

3 A. From Thursday, October 3rd through Saturday, October 5th 2013, western South
4 Dakota experienced a severe winter storm that is commonly referred to as Winter
5 Storm Atlas. Winter Storm Atlas has been determined to be the second heaviest
6 snowstorm on record for Rapid City. Heavy snow and high winds caused
7 significant damage to trees and power lines in the affected areas and caused
8 treacherous travel and working conditions. Because the storm occurred in early
9 October all deciduous trees were fully leafed. The combination of the leafed trees,
10 heavy snow and high winds resulted in extensive broken trees that contributed
11 greatly to the damage to Black Hills Power's facilities throughout its service
12 territory in South Dakota.

13 Black Hills Power considers the outages caused by Winter Storm Atlas to be the
14 worst in the Company's 130 year history. At the outage peak, approximately
15 41,800 of Black Hills Power's customers (in excess of 60%) were without power.
16 Internal personnel as well as personnel dispatched from utilities in neighboring
17 states supported Black Hills Power's restoration effort. These crews averaged 13
18 to 16 hour days with an exemplary safety record during the restoration period. At
19 the height, these restoration efforts were carried out by over 500 employees and
20 contractors. Many of the crews came from other states including North Dakota,
21 Montana, Wyoming, and Colorado. Because Black Hills Power had an
22 appropriate emergency response plan and began executing this plan prior to the

1 storm, including timely activation of resources, it was able to restore power to
2 95% of its customers in six days.

3 The volume of personnel, materials and equipment that were mobilized for this
4 storm was unprecedented, and critical to the Company's success. The resources
5 that were utilized were greatly needed and resulted in power being restored to
6 customers dramatically sooner than otherwise would have been possible.
7 Repairing the substantial and widespread damage was costly, and far exceeded
8 average annual storm-related costs. As a result, Black Hills Power seeks recovery
9 of the associated costs in this proceeding. For additional information regarding
10 the costs attributed to Winter Storm Atlas, please see the testimony of Chris
11 Kilpatrick.

12 **Q. WHAT INNOVATIVE MEASURES HAS BLACK HILLS POWER**
13 **UNDERTAKEN TO MITIGATE INCREASING COSTS AND RATE**
14 **IMPACT?**

15 A. Black Hills Power supported and received approval for the phase in rate plan
16 ("PIPR") whereby customers would pay construction financing costs during
17 construction instead of adding an allowance for funds used during construction to
18 rate base. The PIPR that accomplished this resulted in savings for Black Hills
19 Power customers. The PIPR also provided that customers pay quarterly increases
20 during the construction of CPGS, which minimizes the customer impact of the
21 new generation going into customer rates on October 1, 2014.

1 **Q. WHAT OTHER MEASURES WERE UNDERTAKEN BY BLACK HILLS**
2 **POWER?**

3 A. The electricity needs of the customers of Black Hills Power continue to steadily
4 increase. Generation facilities must be built in advance to ensure the continued
5 reliability of service to its customers. At the same time, Black Hills Power must
6 decommission three of its coal-fired generation units. In addressing these issues,
7 Black Hills Power identified the opportunity to partner with its sister utility,
8 Cheyenne Light, in the development and joint ownership of the CPGS. This
9 partnership provides for economies of scale that reduce overall costs, including the
10 joint ownership of assets that benefit both utilities.

11 **IV. BUSINESS OVERVIEW OF BLACK HILLS POWER**

12 **Q. PLEASE BRIEFLY DESCRIBE BLACK HILLS POWER'S HISTORY.**

13 A. Black Hills Power and its predecessor companies have been providing electric
14 power to the Black Hills region since 1883, when Pilcher Electric Light Co. was
15 formed by early pioneers in Deadwood, SD. Black Hills Power and Light was
16 formed in 1941 through the purchase and combination of several existing electric
17 utilities throughout the Black Hills. Headquartered in Rapid City, today, Black
18 Hills Power is a wholly owned subsidiary of BHC.

19 **Q. PLEASE GIVE A BASIC OVERVIEW OF BLACK HILLS POWER'S**
20 **BUSINESS OPERATIONS.**

21 A. Black Hills Power is a regulated electric utility engaged in the generation,
22 transmission and distribution of electricity to approximately 68,000 customers in

1 western South Dakota, northeastern Wyoming, and southeastern Montana. Black
 2 Hills Power's service territory covers approximately 9,300 square miles. The
 3 Company has approximately 265 current employees with several open positions,
 4 and is further supported by Black Hills Service Company, LLC ("Service
 5 Company") and Black Hills Utility Holdings, Inc. ("Utility Holdings").
 6 Approximately 90 percent of Black Hills Power's retail electric revenues during
 7 the 12 months ending September 30, 2013 were generated in South Dakota.

8 **Q. PLEASE DESCRIBE BLACK HILLS POWER'S UTILITY ASSETS.**

9 A. The assets utilized by Black Hills Power to provide service to customers fall into
 10 three primary classes: Generation (also known as Production), Transmission and
 11 Distribution. Each of these asset classes are described in more detail below.

12 Generation Assets

13 Black Hills Power's current ownership interests in electric generation plants are as
 14 follows:

Unit	Fuel Type	Location	Ownership Interest (%)	Capacity (MW)	Year Installed
Osage	Coal	Osage, WY	100	34.5	1948-1952
Ben French	Coal	Rapid City, SD	100	25.0	1960
Neil Simpson I	Coal	Gillette, WY	100	21.8	1969
Neil Simpson II	Coal	Gillette, WY	100	90.0	1995
Wyodak	Coal	Gillette, WY	20	72.4	1978
Wygen III	Coal	Gillette, WY	52	57.2	2010
Ben French Diesel #1-5	Oil	Rapid City, SD	100	10.0	1965
Ben French CTs #1-4	Gas/Oil	Rapid City, SD	100	80.0	1977-1979
Neil Simpson CT	Gas	Gillette, WY	100	40.0	2000
Lange CT	Gas	Rapid City, SD	100	40.0	2002

1 However, as a result of the newly enacted Area Source Rules, Black Hills Power
2 retired three of its coal-fired generation units, Osage, Ben French, and Neil
3 Simpson I.

4 In addition to the balance of the ownership of the remaining generation facilities,
5 Black Hills Power will also own 58% of a combined cycle unit at CPGS. This
6 unit will be in service on October 1, 2014, and will provide a total of 95 MW of
7 generating capacity, with Black Hills Power owning 55 MW.

8 Transmission Assets

9 Black Hills Power's electric transmission system is composed of approximately
10 590 miles of high voltage (230 kV) transmission lines and 500 miles of low
11 voltage (69 kV and 47 kV) transmission lines.

12 Black Hills Power also owns 35 percent of a transmission tie that interconnects the
13 Western and Eastern transmission grids, which are independently operated
14 transmission grids serving the western United States and eastern United States,
15 respectively. This transmission tie, which is 65 percent owned by Basin Electric,
16 provides transmission access to both the Western Electricity Coordinating Council
17 region in the West and the Mid-Continent Area Power Pool region in the East.
18 This transmission tie allows Black Hills Power to buy and sell energy on the
19 Eastern grid without having to isolate and physically reconnect load or generation
20 between the two transmission grids.

1 Distribution Assets

2 Black Hills Power owns and operates 2,550 line miles of distribution facilities.
3 Additional distribution assets include poles, transformers, meters, and other related
4 equipment.

5 **Q. PLEASE PROVIDE A BREAKDOWN OF BLACK HILLS POWER'S**
6 **CUSTOMER CLASSES AND CUSTOMER COUNTS.**

7 A. From October 2012 through September 2013, Black Hills Power provided service
8 to the following average number of retail customers in South Dakota by customer
9 class.

10 South Dakota Retail Customers

11 Residential	52,450
12 Small General Service	11,886
13 Large General Service	505
14 Lighting	<u>647</u>
15 Total	65,487

16 **Q. WHAT ARE BLACK HILLS POWER'S HIGHEST SUMMER AND**
17 **WINTER PEAK LOADS?**

18 A. Black Hills Power's all-time peak load of 452 megawatts was reached in July,
19 2011, and a winter peak load of 408 megawatts was reached in January, 2011.

1 **Q. PLEASE IDENTIFY BLACK HILLS POWER'S LONG TERM**
2 **WHOLESALE CONTRACTS.**

3 A. Black Hills Power has long term agreements to serve Sheridan, Wyoming (through
4 Montana-Dakota Utilities Company) and the Municipal Energy Agency of
5 Nebraska, also known as MEAN.

6 **V. RELIABILITY AND CUSTOMER SERVICE**

7 **Q. PLEASE DESCRIBE HOW BLACK HILLS POWER MEASURES**
8 **RELIABILITY OF ITS DELIVERY SYSTEM.**

9 A. Black Hills Power utilizes generally accepted reliability indices, as defined by the
10 Institute of Electrical and Electronic Engineers ("IEEE") in its standard number
11 1366-2003, "Guide for Electric Power Distribution Reliability Indices." Generally
12 speaking, the most often used performance measurement for a sustained
13 interruption is the System Average Interruption Duration Index ("SAIDI"). SAIDI
14 measures the duration of an interruption for an "average time" customers are
15 interrupted during a given time period. Other standard measures are utilized to
16 help target expenditures for capital improvements to improve reliability measures.

17 **Q. PLEASE DESCRIBE BLACK HILLS POWER'S HISTORICAL**
18 **RELIABILITY PERFORMANCE.**

19 A. Black Hills Power participates in an annual reliability benchmarking study
20 conducted by IEEE. Among the 60 participating utilities, Black Hills Power
21 consistently ranks as one of the top 25 percent most reliable companies. The

1 following table sets forth a summary of Black Hills Power's performance relative
2 to the IEEE benchmark survey for the years 2009, 2010, 2011, and 2012.

3 SAIDI Performance

4 (Average annual customer outage duration in minutes)

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
5 Black Hills Power	69.9	76.1	85.9	72.6
6 IEEE Top Quartile	81.2	89.5	100.7	93.1

7
8 At the time of this filing, 2013 survey data is not yet available from IEEE.

9 Based on 2012 data, Black Hills Power customers had, on average, power
10 available 99.99 percent of the time.

11 **Q. WHAT EMPHASIS DOES BLACK HILLS POWER PLACE ON**
12 **CUSTOMER SERVICE SATISFACTION LEVELS?**

13 A. Customer service has been and remains a very high priority for Black Hills Power,
14 and for all employees within the Black Hills Power utility. Company and
15 departmental goals include a customer satisfaction component.

16 **Q. DOES BLACK HILLS POWER CONSISTENTLY MEASURE CUSTOMER**
17 **SERVICE AND SATISFACTION LEVELS?**

18 A. Yes. Black Hills Power believes that its focus on customer service is reflected
19 well in its ability to maintain a high level of customer satisfaction, as demonstrated
20 by the results of surveys completed by J.D. Powers and Associates. For each set
21 of results (conducted approximately each quarter), Black Hills Power's customer
22 satisfaction scores have consistently exceeded the average of Midwest utilities

1 participating in the surveys. The following table sets forth a summary of Black
2 Hills Power's performance relative to other midsize Midwest utilities participating
3 in JD Power surveys for the years 2010, 2011, 2012 and 2013.

4 JD Power Overall Customer Satisfaction Index

	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
6 Black Hills Power	601	637	644	671
7 Midwest Region	637	618	627	639

8 **Q. PLEASE DISCUSS BLACK HILLS POWER'S CONSOLIDATION OF ITS**
9 **CUSTOMER SERVICE AND LINE OPERATION DEPARTMENTS AT**
10 **SEVERAL LOCATIONS.**

11 A. Black Hills Power consolidated its customer service and line operation
12 departments at several offices to adapt to changing customer needs, including
13 customers' preference to use more technology and more convenient payment
14 options when doing business with the Company. As a result of these changing
15 trends, the Company has experienced a 45% decrease in walk-in traffic in recent
16 years, while online interactions have increased by 40%.

17 To better serve the current customer preferences and reduce costs for all
18 customers, the Company implemented a new customer service model on February
19 3, 2014. As part of the new model, three regional customer service and operations
20 centers will be utilized to offer expanded services in South Dakota. These
21 regional centers are located in Sturgis and Spearfish to serve the Northern Hills
22 region, and Custer to serve the Southern Hills region. The Rapid City Service

1 Center will continue to serve the Rapid City area. Offices in Deadwood and Hot
2 Springs were closed to walk-in customer service traffic, but continue to serve as
3 operations centers. Offices in Newell and Belle Fourche were closed. The new
4 regional model continues to offer walk-in payment options for those customers
5 preferring this method, and provides for an increased focus on delivering a wider
6 variety of services to customers.

7 **Q. PLEASE DESCRIBE BLACK HILLS POWER'S ENHANCED AND**
8 **EXPANDED CUSTOMER SERVICE MODEL.**

9 A. As a result of its conversion to the CIS+ information system that is now common
10 to the regulated utilities of BHC, Black Hills Power is able to provide call center
11 customer service support 24 hours a day, 7 days a week in the case of electric
12 emergencies. General customer support through the Call Centers is provided 6
13 days a week from 7am-8pm Monday through Friday and 8am to 5pm on Saturday,
14 mountain time. In addition, business process initiatives have been put into place
15 to improve customer service as well as efficiencies. For example, additional
16 payment options are available through our electronic bill presentment software and
17 mobile application or Quick Response code (QR) for customers wishing to pay
18 their bill via their smart phone. An improved interactive response system provides
19 self-service options for customers who do business with the Company, including
20 the ability to make payment arrangements, set up their accounts on budget billing,
21 initiate payments and report service interruptions. With the installation of
22 Automated Meter Infrastructure, Black Hills Power customers can view their

1 monthly, weekly and daily electric usage patterns from our website as well as
2 service interruption updates. Black Hills Power has also initiated outage and other
3 Company news on social media. The website has been redesigned to offer
4 customers the ability to access their account information from various electronic
5 devices including tablets and smart phones. Finally, Black Hills Power continues
6 to provide and enhance energy efficiency programs to assist customers with
7 managing their energy bill.

8 **Q. HOW DOES BLACK HILLS POWER DEMONSTRATE ITS**
9 **COMMITMENT TO THE COMMUNITIES AND CUSTOMERS IT**
10 **SERVES?**

11 A. As a community partner, Black Hills Power remains active in numerous civic and
12 community matters and economic development efforts. Black Hills Power has
13 been involved in a broad range of projects to improve its local communities. In
14 Black Hills Power's South Dakota service area, some examples of this
15 involvement include participation in local Community United Way campaigns,
16 annual participation in the United Way Day of Caring, board involvement on
17 numerous community and civic organizations, extensive involvement in Chamber
18 of Commerce and economic development in the communities served by the
19 Company, Power of Trees tree planting programs, and participation in numerous
20 K-12 safety education and career development programs.

1 **Q. DOES BLACK HILLS POWER PROVIDE ENERGY EFFICIENCY**
2 **INCENTIVES TO ITS CUSTOMERS?**

3 A. Yes. Black Hills Power provides various Energy Efficiency incentives to its
4 customers in South Dakota. For example, the Company offers rebates for energy
5 efficient water heaters and heat pumps. Additional programs include home energy
6 audits, refrigerator recycling, residential home weatherization, commercial and
7 industrial rebates, program training and marketing and reporting services.

8 **Q. DOES BLACK HILLS POWER SUPPORT COMMUNITY PROGRAMS**
9 **FOR ENERGY ASSISTANCE?**

10 A. Yes. Black Hills Power supports community programs for energy assistance
11 primarily through our Black Hills Cares program and the Walk for Warmth
12 program. Our Black Hills Cares program offers customers and employees several
13 options to donate to the Black Hills Cares fund, and all customer contributions are
14 matched by Black Hills Power dollar for dollar. The Walk for Warmth program is
15 an annual walk initiated by Black Hills Power where all entry fees and donations
16 directly support the Black Hills Cares program and all funds are matched dollar
17 for dollar by Black Hills Power. The 2014 Walk for Warmth raised over \$20,000
18 for this important program. Funds from the Black Hills Cares program are
19 administered for those in need by Church Response, the Salvation Army and the
20 Ministerial Association.

1 **VI. GROUND PATROL PROGRAM**

2 **Q. PLEASE EXPLAIN WHY BLACK HILLS POWER IS PERFORMING A**
3 **GROUND PATROL OF ITS ENTIRE DISTRIBUTION SYSTEM IN**
4 **SOUTH DAKOTA.**

5 A. As indicated above, the Black Hills Region experienced a devastating winter storm
6 in October of 2013. The combination of the leafed trees, heavy snow, and high
7 winds resulted in extensive broken trees that contributed greatly to the damage to
8 Black Hills Power's facilities throughout its service territory in South Dakota.
9 Although significant efforts to repair facilities and address vegetation were
10 undertaken in conjunction with the restoration efforts that followed the storm,
11 Black Hills Power continues to discover damaged vegetation and facilities today.
12 In order to identify latent defects and to ensure a safe, reliable system, the
13 Company has determined that it is prudent to perform a system wide ground patrol
14 of the electrical system that is located in the Black Hills region.

15 **Q. WHAT DOES A GROUND PATROL ENTAIL?**

16 A. A ground patrol consists of a visual inspection of a power line and supporting
17 infrastructure performed by someone either on foot or in a vehicle. Individuals
18 performing ground patrols are trained to spot potential defects or other concerns
19 that may impact the ability to safely and reliably deliver power to customers.

1 **Q. HOW DOES BLACK HILLS POWER PLAN TO ACCOMPLISH THIS**
2 **TASK?**

3 A. The Company has retained DCP Consulting to perform the majority of the ground
4 patrol efforts within Black Hills communities. Black Hills Power employees will
5 perform ground patrols in remote areas of the Black Hills and on the majority of
6 the 69kV system. Black Hills Power plans to have the majority of the ground
7 patrols completed by June of 2014.

8 **Q. WHAT ARE THE COSTS ASSOCIATED WITH THIS PROJECT?**

9 A. Black Hills Power estimates that the project will cost approximately \$1.1 million.
10 For information regarding the costs contained within this estimate and the
11 proposed treatment of those costs, please refer to the testimony of Jon Thurber and
12 Chris Kilpatrick.

13 **Q. WHAT MEASURES HAS BLACK HILLS POWER TAKEN TO**
14 **MITIGATE THE COSTS ASSOCIATED WITH THIS PROJECT?**

15 A. Black Hills Power developed a scope of work for the ground patrol project and
16 solicited bids from multiple qualified vendors. The low bidder was selected for
17 the project. Training was held with both employees and the contractor to ensure
18 each inspector understood the scope of work and the process for reporting
19 potential issues. An electronic database was created to improve efficiency with
20 tracking items identified in the patrol and the associated repairs.

1 **VII. BLACK HILLS POWER'S WORKFORCE**

2 **Q. PLEASE DESCRIBE BLACK HILLS POWER'S CURRENT**
3 **WORKFORCE.**

4 A. As stated above, Black Hills Power currently employs approximately 265 people
5 with several open positions. In addition, employees of Service Company and
6 Utility Holdings perform specific functions for Black Hills Power.

7 **Q. DO YOU FORESEE ANY CHANGES TO BLACK HILLS POWER'S**
8 **WORKFORCE IN THE NEAR TERM?**

9 A. Yes. The average age of Black Hills Power's employees is 47.1 years. Over the
10 next 8 years, approximately 31% of Black Hills Power's current workforce will
11 reach the age of 62, which has been the historical average age of retirement at
12 Black Hills Power and its parent, BHC.

13 **Q. DOES THIS CAUSE ANY CONCERN?**

14 A. Absolutely. Our people are our best assets. A talent shortage within our
15 organization impairs our ability to provide safe, reliable service to our customers.
16 The impending retirements are a concern not only from a headcount perspective,
17 but from a knowledge and experience standpoint. Black Hills Power understands
18 that over the next eight years, employees representing a combined 1,713 years of
19 work experience are expected to retire. This represents approximately 50% of total
20 years of experience. Black Hills Power has not experienced this significant type of
21 loss of experience in its history. Not having replacements ready for our retiring
22 employees could put Black Hills Power at risk by placing undue strain on our

1 remaining employees, who must train replacements as well as complete their own
2 duties.

3 **Q. WHAT STEPS HAVE THE COMPANY TAKEN TO ADDRESS THIS**
4 **CONCERN?**

5 A. Black Hills Power completed a strategic workforce planning process that evaluates
6 workforce demographics, tenure, experience and skill capabilities as well as
7 industry trends and risks. As a result of this process, the Company has retained
8 employees that were employed at the retired Neil Simpson I facility. Also as a
9 result of this process, the Company has identified a total of 72 potential
10 retirements between now and the end of 2021 and is therefore seeking to add
11 several positions through its proposed FutureTrack Workforce Development
12 Program. For additional information on these topics, please refer to the testimony
13 of Chris Kilpatrick and Jennifer Landis.

14 **Q. WHAT OPERATIONS POSITIONS ARE INCLUDED IN BLACK HILLS**
15 **POWER'S FUTURETRACK WORKFORCE DEVELOPMENT**
16 **PROGRAM?**

17 A. Construction representatives, electricians, meter mechanics and line mechanics
18 are the four operations positions that are included in the FutureTrack Workforce
19 Development Program.

20 **Q. PLEASE EXPLAIN WHY THESE POSITIONS ARE INCLUDED.**

21 A. In the next eight years, Black Hills Power expects 3 construction representatives, 5
22 electricians, 3 meter mechanics and 13 line mechanics to retire. Based on the

1 Company's experience, it takes approximately 2 years to fully train a construction
2 representative, 4 years to fully train an electrician, 2 years to fully train a meter
3 mechanic and 4 years to fully train a line mechanic. Due to the lengthy training
4 periods and the expected shortage of skilled candidates, these four operations
5 positions are included in the Black Hills Power FutureTrack Workforce
6 Development Program.

7 **Q. HOW PRODUCTIVE ARE THE INDIVIDUALS WHO ARE TRAINING**
8 **FOR THESE POSITIONS?**

9 A. Based on the Company's experience, a construction representative is 50 percent
10 productive after 12 months of training, and able to work independently after 2
11 years of training; an electrician is 75% percent productive after 3 years of training,
12 and able to work independently after 4 years of training; a meter mechanic is 25%
13 productive after 6 months of training and able to work independently after 2 years
14 of training; and a line mechanic is 75 percent productive after 3 years of training,
15 and able to work independently after 4 years of training. Jennifer Landis
16 discusses how these productively metrics are applied to determine what portion of
17 a particular position is charged to the FutureTrack Workforce Development
18 Program regulatory asset.

1 **VIII. INTRODUCTION OF WITNESSES**

2 **Q. PLEASE INTRODUCE BLACK HILLS POWER'S OTHER WITNESSES**
3 **IN THIS PROCEEDING.**

4 **A.** The other witnesses providing written direct testimony and exhibits, and the
5 subject matter of each, are listed below:

6 **Kyle D. White, Vice President of Regulatory Affairs**

7 Mr. White discusses the corporate structure of Black Hills Power and its parent
8 company, BHC. He discusses the class cost of service and proposed rates. He
9 also discusses the Statement R coal pricing and presents the business case for
10 utility-owned generation. Lastly, he supports the decision to construct CPGS.

11 **Jill S. Tietjen, President and CEO of Technically Speaking, Inc.**

12 Ms. Tietjen demonstrates the need for a new resource on the Black Hills Power
13 system in the 2014 timeframe. She discusses the 2011 Integrated Resource Plan
14 that was conducted to determine how Black Hills Power's resource need should be
15 fulfilled. She discusses the CPGS as the resource to be installed in 2014.

16 **Mark Lux, Vice President and General Manager, Regulated and Non-**
17 **Regulated Generation**

18 Mr. Lux describes CPGS and its construction costs, plant operations and
19 maintenance. He provides an overview of the major capital plant investments that
20 are included in this rate case and defines major maintenance. He discusses the
21 decommissioning of the Neil Simpson I, Osage, and Ben French coal-fired
22 generation facilities. He summarizes the Neil Simpson Complex common asset

1 treatment and addresses plans for the Neil Simpson labor force. Lastly, Mr. Lux
2 addresses the generation related positions that are included in the FutureTrack
3 Workforce Development Program.

4 **Kent J. Kopetzky, Senior Manager, Gas Supply Services**

5 Mr. Kopetzky describes the natural gas supply, pipeline capacity, and other fuel
6 cost for CPGS.

7 **Mike Fredrich, Director Engineering Services**

8 Mr. Fredrich describes Black Hills Power's service territory. He summarizes
9 major capital distribution investments. He also discusses Black Hills Power's
10 LIDAR project.

11 **Jennifer Landis, Director Corporate Human Resources and Talent
12 Management**

13 Ms. Landis describes the FutureTrack Workforce Development Program for Black
14 Hills Power.

15 **Laura A. Patterson, Director of Compensation, Benefits, and Human
16 Resources Information Services**

17 Ms. Patterson describes the compensation and benefits philosophy of Black Hills
18 Power.

19 **Jon Thurber, Manager - Regulatory Affairs**

20 Mr. Thurber supports and explains the revenue requirement model for Black Hills
21 Power and discusses the test year rate base and income statement, describes the
22 appropriate adjustments to the test year rate base, revenues and operating

1 expenses, including any known and measurable or contracted for adjustments, and
2 supports the requested revenue increase.

3 **Christopher J. Kilpatrick, Director Regulatory**

4 Mr. Kilpatrick supports Black Hills Power's revenue requirement. He discusses
5 the Phase In Plan Rate revenue. He addresses the CPGS pipeline cost allocations.
6 He summarizes the proposed changes to the Energy Cost Adjustment. He
7 addresses the treatment of the decommissioning and Winter Storm Atlas regulator
8 assets. Lastly, he discusses the Cost Allocation Manuals.

9 **Charles R. Gray, Manager – Regulatory Affairs**

10 Mr. Gray provides the proof of test year revenues and billing determinants for
11 Black Hills Power. Mr. Gray also discusses the jurisdictional cost of service.

12 **John J. Spanos, Vice President of Gannett Fleming**

13 Mr. Spanos supports Black Hills Power's proposed depreciation expense rates.

14 **Brian G. Iverson, Vice President, Treasurer**

15 Mr. Iverson certifies the books and records of Black Hills Power and the use of the
16 FERC uniform system of accounts. In addition, Mr. Iverson discusses the
17 corporate finance philosophy of Black Hills Power, the proposed capital structure,
18 long term debt and the cost of equity and debt financing activity.

19 **Dr. William E. Avera of FINCAP, Inc.**

20 Dr. Avera presents his independent assessment of the fair and reasonable rate of
21 return on equity for Black Hills Power and Black Hills Power's requested capital
22 structure.

1 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

2 A. Yes, it does.