

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

**APPLICATION OF BLACK HILLS)
POWER INC. FOR AN INCREASE)
IN ELECTRIC RATES)**

DIRECT TESTIMONY OF THOMAS J. OHLMACHER

I. INTRODUCTION AND QUALIFICATIONS

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

2 A. Thomas M. Ohlmacher. My business address is 350 Indiana Street,
3 Suite 400, Golden, Colorado, 80401.

4 **Q. WHAT IS YOUR EMPLOYMENT POSITION NOW WITH BLACK
5 HILLS CORPORATION?**

6 A. I am President and Chief Operating Officer of Black Hills Energy, Inc.,
7 Black Hills Corporation's wholesale energy group.

8 **Q. WHAT IS YOUR EDUCATIONAL, TRAINING AND EMPLOYMENT
9 BACKGROUND?**

10 A. I am a graduate of the South Dakota School of Mines & Technology in
11 Rapid City, South Dakota. I graduated with a Bachelor of Science
12 degree in Chemistry. Since graduating from the School of Mines, I
13 have been employed by Black Hills Corporation (Black Hills) and its
14 subsidiaries including Black Hills Power, Inc. (Black Hills Power) in
15 numerous positions.

16 **Q. WHAT WERE THOSE POSITIONS?**

1 A. From 1974 to 1976, I served as a results engineer for Black Hills
2 Power's plants. My primary responsibilities involved water treatment
3 facilities for all of Black Hills Power's plants, and control and
4 instrumentation and plant efficiency monitoring. From 1977 to 1978, I
5 was the plant maintenance supervisor at the Kirk Plant. I was the plant
6 manager of the Kirk Plant from 1978 to 1986. I oversaw all power
7 plant activities, staffing, budgeting, training, and planning capital and
8 maintenance budgets. From 1987 to 1990 I was the manager of
9 planning. My responsibilities included resource and transmission
10 planning, the evaluation of life extension and re-powering options for
11 existing plants, organizing and administering the joint transmission
12 planning group between Basin Electric and Black Hills Power,
13 preparing five-year utility resource plans for capacity and energy
14 requirements, and coordinating preparation of load forecasts. From
15 1990 to 1992, I served as the director of engineering. My
16 responsibilities included administration of joint transmission and
17 distribution planning for the engineering group. In 1992, I became the
18 Neil Simpson Unit #2 Project Manager, and oversaw its construction.
19 From 1994 through 2000 I was Vice President of Power Supply. From
20 January 2001 to November 2001 I served as Senior Vice President of
21 Power Supply and Power Marketing. From November 2001 to the
22 present I have been the President and Chief Operating Officer of Black
23 Hills Energy, Inc., Black Hills Corporation's wholesale energy group

1 where my responsibilities include management of the Company's oil
2 and gas exploration and production division, the Company's energy
3 marketing division and the Company's independent and retail power
4 generation division.

5 **II. PURPOSE OF TESTIMONY**

6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

7 A. The purpose of my testimony is to discuss how Black Hills Power
8 addresses its obligations of providing energy and capacity to serve the
9 customer loads of South Dakota, Wyoming, and Montana. I will also
10 describe the facilities, power plants and purchase contracts that enable
11 Black Hills Power to serve its customers.

12 **III. POWER GENERATION FACILITIES**

13 **Q. DESCRIBE BLACK HILLS POWER'S GENERATION FACILITIES**
14 **AND THE CAPABILITIES OF EACH.**

15 A. Black Hills Power's portfolio of power plants include the following,
16 which are listed in order of date that they were placed into service.
17 The Osage plant is a wholly owned coal-fired plant in Osage, Wyoming
18 with three turbine generating units with a total nameplate capacity of
19 34.5 megawatts. The first unit was originally placed into service in
20 1948, the second in 1950 and the third in 1952. The plant receives
21 coal by truck from the Wyodak mine, which I'll discuss shortly.

1 The Ben French plant is a wholly owned coal-fired plant located in
2 Rapid City, South Dakota, with a nameplate capacity of 25 megawatts.

3 The coal is delivered by truck from the Wyodak mine.

4 The five Ben French Diesel Units are wholly owned diesel-fired plants
5 located in Rapid City, South Dakota, with an aggregate capacity of 10
6 megawatts. These plants were placed into service in 1965.

7 Neil Simpson I is a wholly owned, air-cooled, coal-fired facility located
8 near Gillette, Wyoming. It has a nameplate capacity of 21.8
9 megawatts and was placed into service in 1969. This plant receives its
10 coal directly from the Wyodak mine.

11 The four Ben French Combustion Turbines are wholly-owned natural
12 gas and or oil-fired units with an aggregate nameplate capacity of 100
13 megawatts located in Rapid City, South Dakota. These facilities were
14 placed into service from 1977 to 1979.

15 The Wyodak plant near Gillette, Wyoming, is a mine mouth coal-fired
16 plant owned 80 percent by PacifiCorp and 20 percent by Black Hills
17 Power. Wyodak has a nameplate capacity of 362 megawatts. Black
18 Hills Power's 20 percent share is 72.4 megawatts. The Wyodak mine
19 furnishes all of the coal supply for the Wyodak plant. The plant, which
20 is operated by PacifiCorp, was placed into service in 1978.

21 Neil Simpson II is a wholly-owned, air-cooled, coal-fired facility located
22 near Gillette, Wyoming. It has a nameplate capacity of 91 megawatts
23 and was placed into service in 1995. It operates as a baseload facility,

1 and is a mine-mouth plant receiving its coal directly from the Wyodak
2 mine.

3 The Neil Simpson Combustion Turbine is a wholly-owned gas-fired
4 plant located near Gillette, Wyoming with a nameplate capacity of 40
5 megawatts. This plant was placed into service in 2000 due to
6 continued growth in customer load and a need for additional peaking
7 resources to maintain our operating reserves.

8 The Lange Combustion Turbine is a wholly-owned natural gas-fired
9 plant with a nameplate capacity of 40 megawatts located near Rapid
10 City, South Dakota. The plant was placed into service in 2002, again
11 due to the need for additional peaking resources.

12 **Q. IN ADDITION TO YOUR CURRENT GENERATION ASSETS, WHAT**
13 **OTHER RESOURCES DOES BLACK HILLS POWER HAVE TO**
14 **MEET ITS LOAD OBLIGATIONS?**

15 A. Black Hills Power has two contracts with PacifiCorp, a purchase power
16 agreement and a Reserve Capacity and Integration Agreement (RCIA).
17 The purchase power agreement is for 50 megawatts of system firm
18 capacity and up to 80 percent load factor of the associated energy.
19 The capacity pricing is fixed and the energy cost tracks changes in the
20 operating cost of PacifiCorp's share of the Colstrip coal-fired facilities.
21 It is therefore referred to by Black Hills Power as the "Colstrip
22 Contract." The Colstrip Contract expires in 2023. Two PacifiCorp
23 transmission agreements are also associated with the Colstrip

1 Contract. These two agreements include a network agreement to
2 serve the Sheridan, Wyoming load of Montana-Dakota Utilities and a
3 point-to-point transmission agreement to deliver the Colstrip Contract
4 energy to the Black Hills Power system or other points on the
5 PacifiCorp transmission network. The RCIA is an agreement with
6 PacifiCorp that allows Black Hills Power to count the Ben French
7 combustion turbine capacity as 100 megawatts. This is important
8 because the output of these units is reduced at higher ambient
9 temperatures which occur in the summer months of June, July and
10 August, which coincides with Black Hills Power's peak load periods.
11 The RCIA agreement gives Black Hills Power the right to call on
12 PacifiCorp for any of the 100 megawatts that can not be generated by
13 the Ben French combustion turbines. The energy charge is priced at
14 no greater than the combustion turbines' operating cost. This
15 agreement expires in 2012.

16 **Q. WHAT CHANGES HAVE YOU HAD IN YOUR GENERATION**
17 **PORTFOLIO SINCE BLACK HILLS POWER'S LAST RATE CASE**
18 **IN 1995?**

19 A. The 60 year old Kirk Power Plant in Lead, South Dakota with its
20 remaining 16 megawatts of power was retired in 1995, and the Lange
21 Combustion Turbine near Rapid City, South Dakota, was placed into
22 service in 2002. At our facilities near Gillette, Wyoming the Neil
23 Simpson II plant was placed into service in 1995, and the Neil Simpson

1 Combustion Turbine I became operational in 2000. Neil Simpson II
2 and Wygen I are physically connected and utilize a common control
3 center, which reduces the overall work force and operating costs.

4 **Q. HAVE OTHER BLACK HILLS CORPORATION SUBSIDIARIES**
5 **BUILT PLANTS SINCE THE 1995 RATE CASE?**

6 A. Yes. Black Hills Wyoming, Inc. which is part of Black Hills Generation,
7 Inc., added two new plants near Gillette. The Neil Simpson
8 Combustion Turbine II was placed into service in 2001 and the Wygen
9 I coal-fired plant became operational in 2003. Black Hills Power
10 operates these plants for Black Hills Wyoming, but none of this power
11 is currently utilized by Black Hills Power. Finally, Black Hills
12 Generation, Inc. is currently constructing Wygen II, a 90 megawatt
13 coal-fired plant near Gillette which is owned by Cheyenne Light, Fuel
14 and Power Company (Cheyenne Light) and will be used to meet its
15 customers' needs.

16 **Q. WHAT PROCESSES ASSIST YOU IN PLANNING FOR FUTURE**
17 **FACILITIES AND RETIREMENT OF SOME OF YOUR OLDER**
18 **PLANTS?**

19 A. An Integrated Resource Plan (IRP) is a process that assists utilities in
20 evaluating load obligations, including forecasted load growth, in
21 conjunction with a portfolio of assets available to serve those
22 obligations in the most reliable, efficient, and least-cost manner. As
23 plant retirements are forecasted various scenarios are evaluated to

1 compare replacement options. The option with the overall long-term
2 solution that least impacts overall system costs is typically selected.
3 For example, based on the results of our 2005 IRP, we began
4 construction of Wygen II for Cheyenne Light.

5 **Q. WHAT ARE THE BENEFITS OF RATE-BASED GENERATION**
6 **ASSETS?**

7 A. Rate-based generation assets offer several advantages for consumers,
8 regulators and investors. First, the assets provide assurance to our
9 customers that cost based rates have been reviewed and approved by
10 government authorities who are safeguarding the public interest.
11 Second, regulators are given the opportunity to participate in a
12 planning process where long-term investments are designed to match
13 long-term energy demand. Third, investors are assured that a long-
14 term, reasonable, and stable rate of return may be earned on their
15 investment. A lower risk profile may also improve credit ratings which,
16 in turn, can benefit both consumers and investors, by lowering the cost
17 of capital to the Company.

18 **IV. INTERCONNECTS**

19 **Q. WHAT ARE THE POINTS OF INTERCONNECT FROM WITHIN THE**
20 **BLACK HILLS POWER ELECTRIC SYSTEM WHERE BLACK HILLS**
21 **POWER CAN BUY OR SELL ENERGY AND CAPACITY?**

22 A. Black Hills Power transmission system has three points of interconnect
23 with external markets. These are (1) the Wyodak bus which

1 interconnects with PacifiCorp's transmission system, (2) the Stegal
2 West bus which interconnects with the transmission system of the
3 Western Area Power Administration, Rocky Mountain Region, and (3)
4 the AC-DC-AC Tie located near Rapid City, South Dakota. The Tie is
5 sometimes referred to as the Rapid City Converter Station. The first
6 two interconnects are part of the Western Electricity Coordinating
7 Council (WECC) system and can accommodate sales and purchases
8 between Black Hills Power and other western affiliated power
9 suppliers. The AC-DC-AC Tie was placed in service in 2003 and
10 allows for the flow of energy in either direction between the Eastern
11 and Western interconnects. The Tie is jointly owned by Black Hills
12 Power (35 percent) and Basin Electric (65 percent). The total transfer
13 capacity of the Tie is 400 megawatts consisting of 200 megawatts of
14 capacity West to East and 200 megawatts of capacity from East to
15 West. The Black Hills Power portion of the transfer rights have been
16 retained by Black Hills Power for use by Black Hills Power's generation
17 dispatch and scheduling group.

18 **Q. IS THE AC-DC-AC TIE A GENERATION ASSET?**

19 A. No, the AC-DC-AC Tie is a transmission asset. It consists of a
20 converter station and associated transmission lines to interconnect
21 with the South Rapid City 230 kV substation. The United States is
22 comprised of three separate power grids, the Eastern grid, the Western
23 grid and Texas, ERCOT. Power cannot flow between these grids

1 without the use of AC-DC-AC converter stations due to the phase
2 synchronization design.

3 **Q. WHY DID THE BLACK HILLS POWER RETAIN ITS TRANSFER**
4 **RIGHTS?**

5 A. The planning for the Tie dates back to 1986 when it was identified as a
6 future transmission addition to provide transmission support to the
7 Black Hills Power transmission system. The study work that was done
8 at that time was a joint study with Basin Electric, Black Hills Power,
9 and Tri-County Electric Cooperative (now known as PRECorp). Timing
10 of construction of the Tie was largely driven by the large increases in
11 load in the northeast Wyoming area. By retaining its transfer rights,
12 Black Hills Power could rely on the Tie as an access point for
13 resources to serve its customer loads. When prices for power are less
14 expensive in the east, Black Hills Power can purchase power on the
15 Eastern grid and move it across the Tie to the Western grid where
16 Black Hills Power's load is interconnected. In addition, access to
17 power from the Eastern grid reduces Black Hills Power's reliance on its
18 combustion turbines which is especially beneficial during periods of
19 higher natural gas prices.

20 **Q. ARE THERE BENEFITS PROVIDED BY THE AC-DC-AC TIE OTHER**
21 **THAN ACCESS TO OTHER MARKETS?**

1 A. Yes. The Tie provides another input to the transmission system. Prior
2 to the construction of the Tie, there were only two inputs to the
3 transmission system, one at WYODAK, and one at Stegall, Nebraska.

4 **Q. IS THERE A BENEFIT RELATED TO VOLTAGE SUPPORT?**

5
6 A. Yes. Prior to installation of the Tie, the voltage support in Black Hills
7 Power's system, particularly in South Dakota, was adversely affected
8 in the event of a loss of key transmission lines, or during a major
9 generating plant outage. During these outages, additional power was
10 brought in on the remaining transmission lines, thus reducing voltage
11 support margins. The Tie, while not technically a generator of
12 electricity, functions similar to a 200 megawatt generating plant by
13 reducing the need to import energy over the Common Use System
14 (CUS) transmission network during peak loading conditions. When
15 operating in the East to West direction, power flows across the Tie
16 which also provides improved reliability and voltage support margins
17 within Black Hills Power's system. The CUS transmission network will
18 be explained in detail in Michael Fredrich's testimony.

19 — **IV. COAL RESOURCES**

20 **Q. ARE ALL OF YOUR COAL-FIRED PLANTS SERVED BY THE**
21 **WYODAK COAL MINE?**

22 A. Yes. The WYODAK mine also provides PacifiCorp's share of coal for
23 the WYODAK plant.

24 **Q. DESCRIBE THE WYODAK MINE.**

1 A. Black Hills Corporation has a coal mining business, which operates
2 through its Wyodak Resources Development Corporation (WRDC)
3 subsidiary. WRDC mines and processes low-sulfur, sub-bituminous
4 coal at the Wyodak coal mine near Gillette, Wyoming.

5 **Q. IS WRDC AN AFFILIATE COMPANY TO BLACK HILLS POWER**
6 **AND IF SO, HOW IS THE TRANSFER PRICE FOR COAL**
7 **DETERMINED?**

8 A. Yes, WRDC is an affiliate company to Black Hills Power. WRDC sells
9 coal to Black Hills Power for all of its requirements under an
10 arrangement that limits earnings from all coal sales to Black Hills
11 Power to a specified return on the coal mine's cost-depreciated
12 investment base plus a pass through for actual expenses incurred in
13 the mining process.

14 **Q. IS THE SAME PRICING METHODOLOGY USED TO DETERMINE**
15 **PACIFICORP'S COAL COSTS?**

16 A. No. PacifiCorp has a contract with WRDC for its coal requirements
17 which expires in 2022. PacifiCorp is obligated to purchase a minimum
18 of 1.5 million tons of coal each year. PacifiCorp paid \$10.35 per ton in
19 December 2005 and an average of \$9.92 per ton during all of 2005.

20 **Q. HOW DOES THIS COMPARE TO THE PRICE CURRENTLY BEING**
21 **PAID BY BLACK HILLS POWER?**

1 A. The forecast price to Black Hills Power is \$7.60 per ton for 2006 and is
2 included in Statement R of our application. Further detail regarding
3 coal pricing will be addressed in testimony provided by others.

4 **VI. ELECTRIC LOAD SERVICE AND PRICING**

5 **Q. HOW IS BLACK HILL POWER'S ELECTRIC LOAD SERVED?**

6 A. Black Hills Power has a generation dispatch and power marketing
7 group that looks at annual, seasonal, monthly and day ahead load
8 forecasts and resource availability to meet load obligations. On an
9 hour-by-hour basis, resources are matched with load obligations. If
10 excess resources are available and access to markets can be
11 obtained, any of the excess may be sold for the prevailing market
12 price. If Black Hills Power customer loads can be served more
13 economically from purchased power then purchases are arranged with
14 counterparties that can deliver to Black Hills Power's transmission
15 system. Black Hills Power's electric load is primarily served by its-
16 coal-fired generating facilities in South Dakota and Wyoming and by
17 the 50 megawatt Colstrip Contract, which totals approximately 267
18 megawatts of net generation capability. As our most economical
19 generation these costs are attributed first to our utility customer load.
20 Loads above this capacity are served by economy market purchases
21 or the use of combustion turbine and diesel resources – whichever is
22 the most economical. Approximately 50 percent of Black Hills Power's
23 capacity is coal-fired, 39 percent is oil or natural gas-fired, and 11

1 percent is supplied under the Colstrip Contract. Because the coal-fired
2 resources are fully loaded, any additional load growth obligations must
3 typically be met by utilizing our gas-fired combustion turbines or by
4 purchasing natural gas-fired power.

5 **Q. WHAT IS THE BENEFIT OF HAVING THE GENERATION**
6 **DISPATCH AND POWER MARKETING GROUP?**

7 A. The benefit of this is twofold. First, we are able to keep resources fully
8 loaded so that they operate at optimum efficiency. Second, this group
9 has market presence and knowledge and therefore has the ability to
10 secure the least cost, most economical resources for serving load.
11 This market presence assures the knowledge of current market pricing
12 and resource availability.

13 **Q. ARE BLACK HILLS POWER'S GENERATION FACILITIES UTILIZED**
14 **IN CONJUNCTION WITH POWER MARKETING ACTIVITIES?**

15 A. Yes, when load is less than the resources available, any excess
16 energy is sold into the market when economically feasible. As stated
17 previously, this allows facilities to be fully loaded and thus operated
18 more efficiently which results in an overall lower cost per kilowatt hour
19 to our customers.

20 **Q. ARE YOU ABLE TO TRACK WHICH ENERGY IS USED TO SERVE**
21 **LOAD OBLIGATIONS AND WHICH ENERGY IS USED TO SERVE**
22 **POWER MARKETING ACTIVITY?**

1 A. Yes. Black Hills Power has procedures to track the cost of all sales
2 and resource dispatching to monitor our performance and economic
3 decisions for serving both native customer load and generating power
4 marketing margins. These procedures assure Black Hills Power
5 management that customer loads are served first and with the most
6 economical resources and that any power marketing sales are not
7 made at the expense of Black Hills Power utility customers. This
8 assurance is accomplished primarily through the accounting and
9 scheduling system that serves the utility. The system identifies the
10 lowest cost energy that is being purchased or utilized, on an hourly
11 basis (twenty-four hours per day, seven days per week), and attributes
12 that cost to the utility customers.

13 **Q. COULD YOU GIVE AN EXAMPLE?**

14 A. Assume that at a specific time of day Black Hills Power is utilizing its
15 coal-fired and its combustion turbine generators, is receiving energy
16 from its Colstrip Contract, and is also purchasing energy from the
17 market. If the lowest cost resource at that point in time is the coal-fired
18 generator source, that cost is attributed to the utility customers. In
19 2005, for example, less than one percent of the coal-fired energy was
20 available for power marketing. As the aggregate of resources
21 necessary to serve the Black Hills Power retail and firm wholesale
22 contracts is totaled, the combined most economical blend is assigned

1 to the customer load cost first and any cost above the customer cost
2 are assigned to any ongoing short term power marketing sales.

3 **Q. WHY DOES BLACK HILLS POWER HAVE THAT PRACTICE?**

4 A. Black Hills Power is a utility company with its primary mission to serve
5 its utility customers as efficiently, reliably, and economically as
6 possible, while still maintaining an acceptable return on its investment.

7 **Q. IS IT THE INTENT OF BLACK HILLS POWER TO CONTINUE THIS
8 PRACTICE NOW THAT THE RATE FREEZE HAS EXPIRED?**

9 A. Yes. That practice is an integral part of Black Hills Power's application
10 in this rate case.

11 **Q. WHAT WILL BE THE PRACTICAL EFFECT OF THAT PRACTICE
12 ON THE CUSTOMER GOING FORWARD?**

13 A. It will ensure that the cost of service attributable to the utility's load
14 obligations will remain as low as possible insofar as the energy costs
15 that are attributable to serving the native load will be from the least
16 cost available resources. It is best explained by describing the role of
17 Black Hills Power's generation dispatch and power marketing group.
18 Their primary obligation is to provide reliable power to the utility at the
19 lowest possible cost. Any power marketing they do is secondary to
20 that primary obligation. Accordingly, we do not want this group's
21 decisions impacted by whether the cost per kilowatt hour of a given
22 power purchase or energy resource is attributable to the utility load or
23 to power marketing activities. This also insures that the generation

1 dispatch and power marketing group is always working hard to find, or
2 utilize, the lowest cost energy resource at any given time because
3 each resource or purchase is scheduled hourly and the system allows
4 us to assign the least cost resources to load obligations first and power
5 marketing obligations second.

6 **Q. HOW DOES BLACK HILLS POWER DEAL WITH OR ACCOUNT**
7 **FOR AN UNFORESEEN OUTAGE AT POWER PLANTS?**

8 A. One of the requirements of utilities is to plan for such events and to
9 maintain adequate standby generation to cover lost generation. Black
10 Hills Power accounts for such reserves when we prepare our annual
11 operations plans, which obligation for reserves is a critical part of the
12 ongoing resource planning process.

13 **Q. DO ELECTRIC UTILITIES SOMETIMES SHARE RESERVES?**

14 A. Yes. Black Hills Power is a member of the Rocky Mountain Reserve
15 Group (RMRG) which has member utilities primarily in the Rocky
16 Mountain region. Membership in the RMRG allows for the pooling of
17 operating resources of utilities by allowing each utility to maximize the
18 use of its base load resources and share the secondary or standby
19 resources. Thus, the energy reserves of the entire membership can be
20 called on to ensure energy reliability, and emergency backup power,
21 within any member's service area.

1 Q. WHAT AFFECT DOES MEMBERSHIP IN RMRG HAVE ON BLACK
2 HILLS POWER'S OBLIGATIONS TO MAINTAIN SPINNING
3 RESERVES?

4 A. All utilities are obligated to maintain operating, or spinning, reserves.
5 The amount is determined by the Operating Committees of the reserve
6 group. The committees annually assess load obligations, largest unit
7 loss considerations and assigns to each member an amount of both
8 spinning and standby reserves that each utility must have available.
9 The amount of reserves required of Black Hills Power as a stand alone
10 utility was several times greater than what is now required because of
11 its membership in the group.

12 Q. DESCRIBE THE VARIOUS TYPES OF WHOLESALE ENERGY
13 TRANSACTIONS THAT BLACK HILLS POWER ENGAGES IN?

14 A. The first distinction is between long-term contracts and short-term
15 contracts, with the latter generally being considered as those of less
16 than one year's duration.

17 Q. WHAT LONG-TERM WHOLESALE CONTRACTS DOES BLACK
18 HILLS POWER CURRENTLY HAVE?

19 A. Black Hills Power has a ten-year power sales contract expiring in 2013
20 with the Municipal Energy Agency of Nebraska, also known as MEAN,
21 for 20 megawatts of energy contingent on the operation of the Neil
22 Simpson II plant. We have a contract with Montana-Dakota Utilities
23 Company (MDU), expiring December 31, 2006, for the sale of up to 55

1 megawatts of energy and capacity to service the Sheridan, Wyoming,
2 electric service territory. We also entered into a new power purchase
3 agreement with MDU for the supply of up to 74 megawatts of capacity
4 and energy for Sheridan, Wyoming, from 2007 through 2016. Finally,
5 Black Hills Power has a contract with the City of Gillette, Wyoming, to
6 provide the City's first 23 megawatts of capacity and energy. The City
7 of Gillette contract has a seven-year notice of cancellation provision
8 whereby either party may terminate the contract with seven years'
9 notice. The Sheridan and Gillette contracts are integrated into Black
10 Hills Power's control area and are treated as part of the utility's firm
11 native load.

12 **Q. WHAT ARE THE TYPES OF SHORT-TERM WHOLESALE OR**
13 **POWER MARKETING CONTRACTS?**

14 A. Black Hills Power engages in power marketing energy transactions
15 that are either with generation surplus or off-system purchases and
16 sales. Generally speaking, surplus transactions are those involving
17 Black Hills Power's generation assets or long term contracts such as
18 the Colstrip purchase. Power marketing purchases and sales would
19 include those transactions where economical purchases are made
20 from one party, and energy is then sold to a different party at a margin.
21 Black Hills Power has historically optimized the utilization of its power
22 supply resources by selling wholesale power to other utilities and to

1 power marketers in the spot market and through short-term power
2 marketing contracts.

3 **Q. WHAT IS THE OUTLOOK FOR FUTURE POWER MARKETING**
4 **SALES?**

5 A. The portion of the utility's future earnings that will result from power
6 marketing sales will depend on many factors. Power prices, for
7 example, are influenced by factors outside Black Hills Power's control,
8 including fuel prices, transmission constraints, energy supply and
9 demand, weather, economic conditions, more stringent environmental
10 controls, and changing regulatory obligations.

11 **Q. WHAT ARE SOME OF THE RISKS ASSOCIATED WITH POWER**
12 **MARKETING SALES, AND HOW DO YOU CONTROL THAT RISK?**

13 A. A potential risk related to power marketing sales is the price risk arising
14 from the sale of wholesale power that exceeds our generating
15 capacity. These short positions can arise from unplanned plant
16 outages or from unanticipated native load demands. To control such
17 risk, Black Hills Power has risk practices in place to limit both the
18 duration and the amount of energy that it will commit to short term
19 sales.

20 **Q. HOW IS ELECTRICITY DIFFERENT FROM OTHER COMMODITIES**
21 **IN YOUR ABILITY TO RESPOND TO PRICE VOLATILITY?**

22 A. Unlike most other commodities, electricity cannot be stored and
23 therefore must be produced concurrently with its use. As a result,

1 wholesale power markets are subject to significant price fluctuations
2 over relatively short periods of time and can be unpredictable.

3 **Q. WHAT ARE SOME OTHER EXAMPLES OF RECENT EVENTS THAT**
4 **HAVE CONTRIBUTED TO VOLATILITY IN ENERGY PRICES AND**
5 **THE RISKS ASSOCIATED WITH POWER MARKETING?**

6 A. Mild weather over vast sections of the U.S. in recent years, combined
7 with slower regional economic growth, contributed to a slowdown in
8 electric energy demand nationwide. As a result of higher fuel costs,
9 increases of native load, and seasonal weather, power marketing
10 margins from short sales are very uncertain. Natural gas continues to
11 be on the margin for many of the power markets, but weather and new
12 plant construction will likely keep pricing under some control.
13 However, in December 2005, power prices surged in response to
14 weather-related demand. Extreme pricing was short-lived as weather
15 returned to a milder pattern. The quick response of the marketplace
16 (higher prices) demonstrates that a resurgence of either colder winter
17 months, a hotter than normal summer peaking season or increases in
18 industrial demand could again cause very volatile prices. In addition,
19 the availability of hydroelectric power is unpredictable and dependent
20 on precipitation in the Pacific Northwest. Power prices in the West can
21 be affected dramatically by changing hydroelectric conditions.

1 Q. HOW HAVE THESE EVENTS IMPACTED THE COAL
2 INDUSTRY?

3 A. The U.S. coal industry has experienced resurgence in the past few
4 years, with favorable commodity prices creating attractive returns. Coal
5 prices in Wyoming's Powder River Basin have increased dramatically
6 in 2005, despite the fact that its coal has lower heat content
7 characteristics and higher transportation costs than coal from some
8 other regions. From a regional perspective, Powder River Basin coal is
9 a very competitive energy resource. Because coal continues to be an
10 economical resource, its long-term prospects as a significant portion of
11 a national energy mix remains strong.

12 Q. CAN YOU SUMMARIZE THE ADVANTAGES TO BLACK HILLS
13 POWER'S SOUTH DAKOTA CUSTOMERS FOR BLACK HILLS
14 POWER BEING ABLE TO RETAIN ITS REVENUES FROM ITS
15 POWER MARKETING SALES?

16 A. It allows us to retain the flexibility to selectively market excess
17 generating energy off-system to maximize returns in changing markets.
18 The after tax net income from our power marketing sales in 2005 was
19 approximately \$2 million, which provides additional incentive to
20 continue investing in rate-base generation to serve Black Hills Power's
21 customers. Our generation dispatch and power marketing group is
22 actively engaged on an hourly basis in finding the lowest cost fuel and
23 purchased power. Our fuel cost advantages and our operating and

1 marketing expertise allow us to continue to produce power at lower
2 and more stable costs to our customers. Retention of those sales
3 revenues also provides incentives for efficient operations; particularly,
4 efficient generation operations. It also provides incentives to maintain
5 plants efficiently for optimum availability, which in turns maintains
6 customers' low and stable rates.

7 **Q. WHAT ARE SOME OF THE KEY ISSUES THAT BLACK HILLS**
8 **POWER MUST RESPOND TO AS IT POSITIONS ITSELF FOR THE**
9 **FUTURE?**

10 A. Black Hills Power must address the following: (1) aging of its plants
11 and plan for their replacement; (2) be responsive to changing laws and
12 regulations that affect our industry, such as increasingly tighter controls
13 on coal-fired plant emissions, including mercury emissions; (3)
14 continue to maintain access to economic markets to insure that
15 purchased power is obtained at the lowest cost possible; and, (4)
16 maintain relative rate stability for its customers despite the volatility and
17 unpredictability of natural gas costs.

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

19 A. Yes.