

Direct Testimony and Exhibits  
Michael A. Pogany

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

In the Matter of the Application of  
Black Hills Power, Inc. d/b/a Black Hills Energy

For Authority to Increase Rates for Electric Service in South Dakota

Docket No. EL26-\_\_\_\_\_

February 19, 2026

## TABLE OF CONTENTS

I.	INTRODUCTION AND QUALIFICATIONS .....	1
II.	PURPOSE OF TESTIMONY .....	2
III.	BLACK HILLS POWER OPERATIONS .....	3
IV.	STAFFING AND ADMINISTRATION .....	7
V.	PLANT PLACED IN SERVICE SINCE BLACK HILLS POWER’S LAST RATE REVIEW .....	9
VI.	BLACK HILLS POWER’S INTEGRITY PROGRAMS .....	10
VII.	<i>PRO FORMA</i> PLANT ADDITIONS .....	14
VIII.	WILDFIRE MITIGATION .....	16
IX.	BLACK HILLS POWER’S ASSET MANAGEMENT PROGRAMS .....	20
X.	BLACK HILLS POWER’S LIGHTING CLASS CHANGES .....	23
XI.	BLACK HILLS POWER’S POWER FACTOR ADJUSTMENT .....	25
XII.	LINE LOSS STUDIES .....	26
XIII.	CONCLUSION .....	28

## EXHIBITS

Exhibit MAP-1	Map of Communities Served in South Dakota
Exhibit Map-2	Black Hills Corporation Organizational Chart
Exhibit MAP-3	Black Hills Power Wildfire Mitigation Plan
Exhibit MAP-4	Black Hills Power Transmission Line Loss Study
Exhibit MAP-5	Black Hills Power Distribution Line Loss Study

**TABLE OF ABBREVIATIONS AND ACRONYMS**

ANSI	American National Standards Institute
APLIC	Avian Power Line Interaction Committee
APP	Avian Protection Plan
BHC	Black Hills Corporation
BHSC	Black Hills Service Company, LLC
Black Hills Power	Black Hills Power, Inc. d/b/a Black Hills Energy
DSIP	Distribution System Integrity Program
EEI	Edison Electric Institute
FEMA	Federal Emergency Management Agency
HFA	Hazardous Fire Area
HPSV	High Pressure Sodium Vapor
IBEW	International Brotherhood of Electrical Workers
IEEE	Institute of Electrical and Electronics Engineers
ISA	International Society of Arboriculture
kVAR	Kilovolt-Amperes Reactive
kW	Kilowatt
LED	Light Emitting Diode
MDU	Montana-Dakota Utilities Company
MH	Metal Halide
MEAN	Municipal Energy Agency of Nebraska
NERC	North American Electric Reliability Corporation
NESC	National Electric Safety Code
PAL	Public Area Lights
<i>Pro Forma</i> Period	The twelve (12) months ending on September 30, 2026 adjusted for known and measurable changes
PSPS	Public Safety Power Shutoff
SAIDI	System Average Interruption Duration Index

Test Period	The twelve (12) months ended September 30, 2025
WMP	Wildfire Mitigation Plan
WRO	Wildfirerisk.org
WUI	Wildland Urban Interface

1                                   **I.        INTRODUCTION AND QUALIFICATIONS**

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

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

5   **Q.     PLEASE DESCRIBE YOUR EMPLOYMENT.**

6   A.     I am employed by Black Hills Power, Inc. d/b/a Black Hills Energy (“Black Hills  
7           Power”), which is a subsidiary of Black Hills Corporation (“BHC”). I am the General  
8           Manager of Electric Operations. I am responsible for electric operations for Black Hills  
9           Power. This includes management of the electric distribution, as well as fleet  
10          maintenance, engineering, and construction planning departments.

11   **Q.     PLEASE DESCRIBE YOUR EDUCATION AND BUSINESS BACKGROUND.**

12   A.     I have my bachelor’s degree in Environmental Engineering from the South Dakota  
13          School of Mines and Technology in Rapid City. I am a registered professional engineer  
14          in South Dakota, Wyoming, and Colorado. I started at BHC in 2008 as an Environmental  
15          Engineer. After nine years as an Environmental Engineer and manager, I became the  
16          Rapid City Electric Operations Manager in 2017. In 2020, I was promoted to Director of  
17          Electric Operations for Black Hills Power. In 2023, I was promoted to General Manager  
18          for Black Hills Power. Prior to my 17 years at BHC, I spent six years as a water quality  
19          regulator for the South Dakota Department of Environment and Natural Resources (now  
20          Department of Agriculture and Natural Resources).

1 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

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

3 **II. PURPOSE OF TESTIMONY**

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

5 A. My testimony will provide an overview of the type and amount of plant placed in service  
6 since Black Hills Power's last rate review in 2014, explain and provide high level details  
7 on Black Hills Power's integrity programs, plant additions during the *Pro Forma* Period  
8 defined as the twelve (12) months ending September 30, 2026, and describe Black Hills  
9 Power's wildfire mitigation strategies and asset management programs. My testimony  
10 will also provide details on the proposed changes to Black Hills Power's lighting class  
11 along with support for the line loss study Black Hills Power conducted. My testimony  
12 will also provide an overview of Black Hills Power's staff and administration functions.  
13 Finally, I am sponsoring Volume I, Section 4, Statement Q of the Application.

14 **Q. ARE YOU SPONSORING ANY EXHIBITS?**

15 A. Yes. I am sponsoring the following exhibits.

16 Exhibit MAP – 1 Map of Communities Served in South Dakota

17 Exhibit MAP – 2 Black Hills Corporation Organizational Chart

18 Exhibit MAP – 3 Black Hills Power Wildfire Mitigation Plan

19 Exhibit MAP – 4 Black Hills Power Transmission Line Loss Study

20 Exhibit MAP – 5 Black Hills Power Distribution Line Loss Study



1 **Q. PLEASE DESCRIBE BLACK HILLS POWER’S GENERATION ASSETS.**

2 A. Black Hills Power’s current ownership interests in generation plant are as follows:

3 **Table MAP-1: Black Hills Power’s Generation Assets**

<b>Unit</b>	<b>Fuel Type</b>	<b>Location</b>	<b>Ownership Interest (%)</b>	<b>Owned Nameplate Capacity (MWs)</b>	<b>In Service Date</b>
Cheyenne Prairie	Natural Gas	Cheyenne, Wyoming	58%	58.0	2014
Corriedale	Wind	Cheyenne, Wyoming	62%	32.5	2020
Wygen III	Coal	Gillette, Wyoming	52%	60.3	2010
Neil Simpson II	Coal	Gillette, Wyoming	100%	90.0	1995
Wyodak Plant	Coal	Gillette, Wyoming	20%	80.5	1978
Neil Simpson Combustion Turbine	Natural Gas	Gillette, Wyoming	100%	40.0	2008
Lange Combustion Turbine	Natural Gas	Rapid City, SD	100%	40.0	2002
Ben French Diesel #1-5	Diesel Oil	Rapid City, SD	100%	10.0	1965
Ben French Combustion Turbines #1-4	Natural Gas/Diesel Oil	Rapid City, SD	100%	100.0	1977-1979

4 **Q. PLEASE DESCRIBE BLACK HILLS POWER’S TRANSMISSION ASSETS.**

5 A. Black Hills Power’s transmission system consists of 782.4 miles of high voltage (230 kV)  
6 transmission lines and 502.4 miles of low voltage (69 kV) transmission lines. The table  
7 below shows the breakdown of the transmission system line miles by state:

1 **Table MAP-2: High Voltage (230 kV) Transmission Lines**

<b>State</b>	<b>230kV Miles</b>
Nebraska <sup>1</sup>	94.0
South Dakota	277.9
Wyoming	410.5
<b>Total</b>	<b>782.4</b>

2 **Table MAP-3: Low Voltage (69 kV) Transmission Lines**

<b>State</b>	<b>69kV Miles</b>
Montana	39.6
South Dakota	383.1
Wyoming	79.7
<b>Total</b>	<b>502.4</b>

3  
4 Black Hills Power also owns a 35% interest in the DC Tie facility located at  
5 Rapid City, South Dakota that interconnects the Western Interconnection with the Eastern  
6 Interconnection that allows Black Hills Power to buy and sell energy on the Eastern  
7 Interconnection without having to isolate and physically reconnect load or generation  
8 between the two transmission grids.

9 **Q. PLEASE DESCRIBE BLACK HILLS POWER'S DISTRIBUTION ASSETS.**

10 A. Black Hills Power owns and operates 2,664.8 line miles of distribution assets along with  
11 distribution poles, transformers, meters, and other related equipment. The table below  
12 shows the breakdown of the distribution system line miles by state:

---

<sup>1</sup> The 230kV transmission line miles located in Nebraska connect the Black Hills Power system in South Dakota to the Stegall Substation located near Scottsbluff, Nebraska which is a major connection point with neighboring transmission systems.

1 **Table MAP-4: Black Hills Power Distribution System Line Miles by State**

State	Distribution Miles
Montana	28.4
South Dakota	2,567.1
Wyoming	69.3
<b>Total</b>	<b>2,664.8</b>

2  
3 **Q. WHAT ARE BLACK HILLS POWER’S SUMMER AND WINTER PEAKS?**

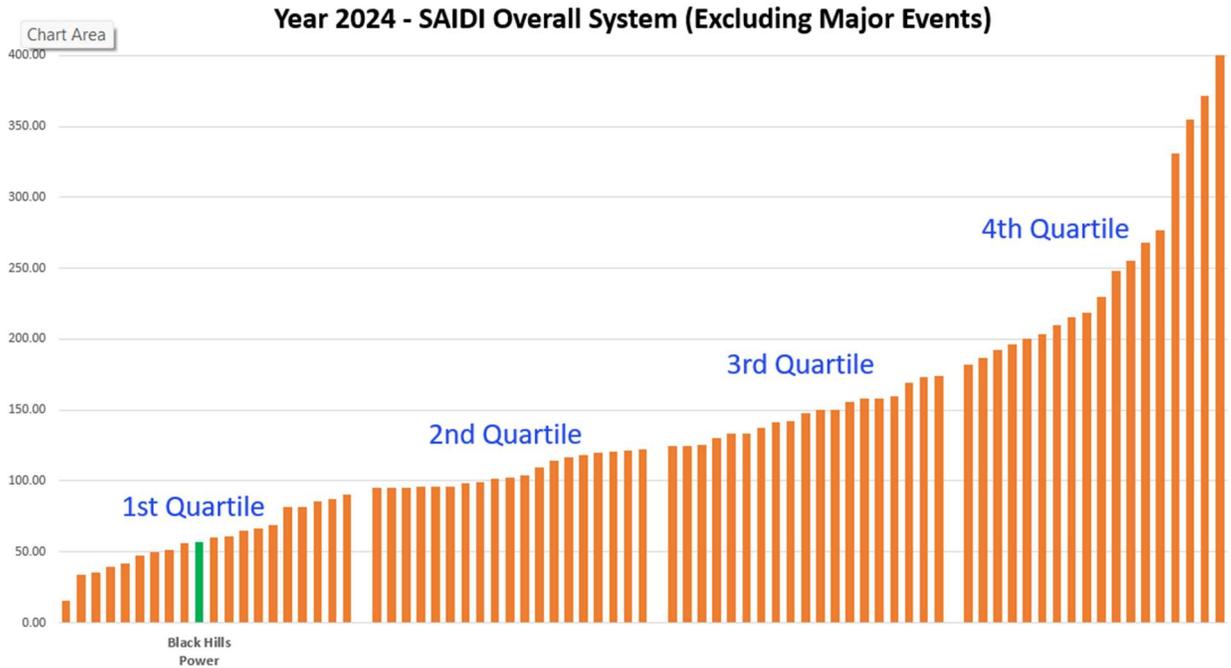
4 A. Black Hills Power’s all-time peak load of 403 MWs was reached on July 18th, 2022, and  
5 a winter peak load of 355 MWs was reached on December 21st, 2022.

6 **Q. DOES BLACK HILLS POWER CALCULATE SYSTEM RELIABILITY**  
7 **INFORMATION?**

8 A. Yes. Black Hills Power measures outage information across its system and uses that  
9 information to calculate reliability statistics. One of the metrics that Black Hills Power  
10 calculates is the System Average Interruption Duration Index (“SAIDI”) which is the  
11 average cumulative outage duration for each customer served in a defined time period.  
12 Said differently, SAIDI is equal to the sum of all customer interruption durations (in  
13 minutes) in a given time period divided by the total number of customers served. Black  
14 Hills Power reports annual SAIDI information to the Edison Electric Institute (“EEI”)  
15 who then conducts comparisons across the nation. In 2024, Black Hills Power calculated  
16 a SAIDI value of 56.7 minutes when major events are excluded. This means that the  
17 average customer on the BHP system experienced 56.7 minutes of power outage in 2024.  
18 The calculation for SAIDI and corresponding major events is defined in Institute of  
19 Electrical and Electronics Engineers (“IEEE”) Standard 1366. Of the utilities that

1 reported information to EEI for 2024, Black Hills Power ranked 10<sup>th</sup> most reliable utility  
2 in the nation.

**Figure MAP- 1: 2024 SAIDI Overall System**



3 **Q. PLEASE DESCRIBE BLACK HILLS POWER’S WHOLESALE CONTRACTS.**

4 A. Black Hills Power has long-term wholesale contracts with Montana-Dakota Utilities  
5 Company (“MDU”) and with the Municipal Energy Agency of Nebraska (“MEAN”).  
6 The MDU contract expires on December 31, 2028 and the MEAN contract expires on  
7 June 30, 2028.

8 **IV. STAFFING AND ADMINISTRATION**

9 **Q. PLEASE DESCRIBE BLACK HILLS POWER’S CURRENT WORKFORCE.**

10 A. As of October 2025, Black Hills Power’s workforce included 199 employees and a Vice  
11 President of Operations whose labor costs are charged 50% to Black Hills Power plus 8  
12 open positions. In addition, Black Hills Service Company (“BHSC”) employees perform

1 key functions for Black Hills Power operations, such as engineering, financial  
2 management, accounting, customer service/call centers, legal services, regulatory  
3 services, etc. Black Hills Power is committed to the communities it serves, and is  
4 committed to maintain and add quality jobs in South Dakota. Black Hills Power has  
5 included 208 employees in this case, which is the required staffing needed to ensure the  
6 safe and reliable operation of Black Hills Power’s electric system. The Company is  
7 actively working to fill the open positions and actively hiring qualified candidates. The  
8 Company remains committed to maintaining a fully staffed workforce to meet operational  
9 and safety requirements.

10 **Q. PLEASE DESCRIBE BLACK HILLS POWER’S UNION WORKFORCE.**

11 A. Black Hills Power has a diverse workforce including employees in bargaining unit and  
12 non-bargaining unit positions. Approximately 62% of the Black Hills Power workforce  
13 represents employees covered under a collective bargaining agreement with the  
14 International Brotherhood of Electrical Workers (“IBEW”) Local Union No. 1250.

15 **Q. WHAT IS THE STATUS OF BLACK HILLS POWER’S CURRENT COLLECTIVE**  
16 **BARGAINING AGREEMENT?**

17 A. The current collective bargaining agreement with IBEW Local Union No. 1250 was ratified  
18 on April 1, 2022, and covers wages through March 31, 2027.

19 **Q. HOW ARE BARGAINING EMPLOYEE WAGE INCREASES DETERMINED?**

20 A. Wages for employees covered by a collective bargaining agreement are negotiated.  
21 Proposed wage rates are based on those negotiations and market rates gathered by the union  
22 and Black Hills Power.



1 Dakota Rate Review in 2014. These plant additions since the last general rate review in  
2 2014 are shown in the table below:

3 **Table MAP-5: Black Hills Power Total Plant Additions 2014-2025**

	<b>Generation</b>	<b>Transmission</b>	<b>Distribution</b>	<b>General Plant</b>	<b>Total</b>
2014-2019	\$158.07	\$121.22	\$106.86	\$97.77	\$483.91
2020	\$61.77	\$14.75	\$48.98	\$11.76	\$137.25
2021	\$33.29	\$14.83	\$27.53	\$4.97	\$80.62
2022	\$33.26	\$30.06	\$26.72	\$7.75	\$97.79
2023	\$18.19	\$24.10	\$32.56	\$7.62	\$82.47
2024	\$10.46	\$0.94	\$31.06	\$5.39	\$47.86
2025*	\$6.92	\$0.17	\$27.81	\$4.69	\$39.62
<b>Total in Millions</b>	\$321.95	\$206.07	\$301.52	\$139.95	\$969.49

4 *\*2025 Additions includes plant placed in service through September 2025.*

5 **Q. WERE THESE INVESTMENTS NECESSARY TO SERVE CUSTOMERS?**

6 A. Yes. These investments are essential to maintain the safety, reliability, and resiliency of  
7 our system. The projects were undertaken to ensure compliance with industry standards,  
8 reduce outage risk, and protect customers from hazards such as equipment failure and  
9 wildfire. These assets are fully used and useful in providing safe and reliable service  
10 today and will continue to deliver long-term benefits to customers.

11 **VI. BLACK HILLS POWER'S INTEGRITY PROGRAMS**

12 **Q. PLEASE EXPLAIN BLACK HILLS POWER'S INTEGRITY PROGRAMS.**

13 A. Black Hills Power has a robust integrity program for the purposes of maintaining safe and  
14 reliable electric service. I will discuss the following integrity programs in my testimony:

- 15 • Distribution System Integrity Program (“DSIP”);
- 16 • Wildlife retrofits;
- 17 • Underground replacement projects; and

- Routine integrity investments.

**Q. PLEASE EXPLAIN BLACK HILLS POWER’S DSIP.**

A. Black Hills Power’s DSIP represents a proactive approach to distribution improvements and modernization through capital investments that allow Black Hills Power to identify and prioritize projects that reduce wildfire risk and improve safety and reliability. DSIP projects are evaluated based on a number of criteria, including wildfire risk, the age and expected useful life of assets, reliability metrics for the assets, and the number of customers served by the assets. Within the DSIP, wildfire risk is the most heavily weighted factor when considering potential projects and their prioritization.

**Q. PLEASE EXPLAIN BLACK HILLS POWER’S WILDLIFE RETROFIT PROGRAM.**

A. Black Hills Power recognizes that wildlife interactions are often unavoidable given the overhead nature of many electric distribution facilities and that limiting the likelihood and severity of wildlife interactions can improve system reliability and the expected life of assets. To that end, Black Hills Power’s construction standards include a range of techniques for mitigating wildlife interactions, including designing overhead facilities with increased spacing between energized components and utilization of covered jumpers for complex structure construction. Additionally, Black Hills Power is a member of the Avian Power Line Interaction Committee (“APLIC”) and has implemented an Avian Protection Plan (“APP”) which provides structure and procedures to facilitate Black Hills Power’s compliance with applicable avian and wildlife laws, regulations, and permits.

1 **Q. PLEASE EXPLAIN BLACK HILLS POWER’S UNDERGROUND**  
2 **REPLACEMENT PROJECT PROGRAM.**

3 A. Black Hills Power recognizes that underground facilities can be one of the most effective  
4 ways for a utility to reduce its wildfire risk profile and to improve overall system  
5 reliability. However, Black Hills Power also recognizes that underground facilities may  
6 not always be feasible or cost effective. As such, our teams seek to balance these factors  
7 and look for opportunities where undergrounding will be most impactful and properly  
8 balance costs with system reliability.

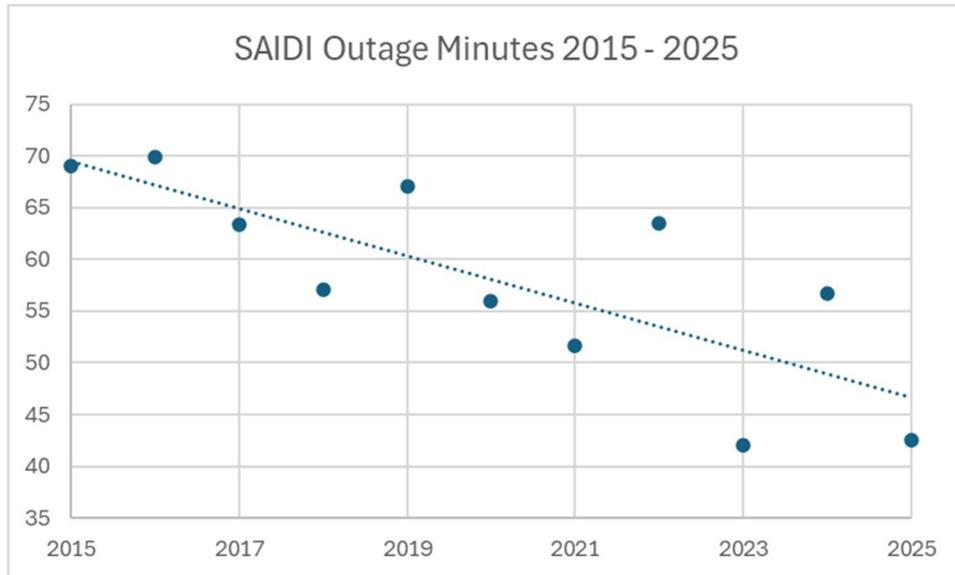
9 **Q. PLEASE DESCRIBE THE CUSTOMER BENEFIT OF BLACK HILLS POWER’S**  
10 **INTEGRITY PROGRAMS.**

11 A. Black Hills Power’s Integrity Programs represent a strategic initiative to examine and  
12 deploy means of improving system reliability and reducing risk through long-term  
13 investment and asset improvements. By systematically exploring opportunities for risk  
14 reduction, the Integrity Programs help to ensure that Black Hills Power’s resources are  
15 expended efficiently and effectively.

16 **Q. COLLECTIVELY DESCRIBE THE BENEFITS CUSTOMERS HAVE RECEIVED**  
17 **IN TERMS OF RELIABILITY, PARTICULARLY IN TERMS OF REDUCTION**  
18 **OF OUTAGE MINUTES GIVEN THE INTEGRITY INVESTMENTS PLACED**  
19 **INTO SERVICE SINCE THE LAST RATE REVIEW IN 2014.**

20 A. Customers have experienced a reduction in SAIDI Outage Minutes as demonstrated by  
21 the following figure.

1 **Figure MAP-2 – 2015-2025 Black Hills Power SAIDI Performance and Trendline**



2  
3 As the above trendline shows, SAIDI improved from 69.9 minutes (2016) to 42.1  
4 minutes (2025), reflecting reliability gains consistent with integrity investments.  
5 Customer experienced impact is shorter outages, fewer service interruptions and less  
6 disruption to homes and businesses across our communities.

7 **Q. WHAT LEVEL OF DISTRIBUTION INVESTMENT HAS BLACK HILLS**  
8 **POWER MADE SINCE THE LAST RATE REVIEW?**

9 A. Black Hills Power has placed approximately \$301.52 million of distribution capital in  
10 service since its last rate review in 2014 through September 30, 2025. Please see the  
11 table below that breaks out the capital investments made since the last rate review by  
12 integrity and growth.

**Table MAP-6: Black Hills Power Total Company Distribution Additions**

Category	2014-2019	2020	2021	2022	2023	2024	2025	Total
Substation Equipment	\$22.08	\$5.31	\$1.84	\$5.61	\$0.50	\$1.03	\$0.70	\$37.06
Poles/Towers/Fixtures	\$22.15	\$14.05	\$3.50	\$3.98	\$5.32	\$5.94	\$3.65	\$58.58
Overhead Conductors	\$13.29	\$5.41	\$5.20	(\$0.66)	(\$1.29)	\$3.30	\$0.59	\$25.84
Underground Conduit	\$4.85	\$1.53	\$4.41	\$2.64	\$2.61	\$0.38	\$1.98	\$18.39
Underground Conductors	\$4.70	\$8.54	\$3.18	\$4.96	\$6.56	\$4.67	\$3.54	\$36.15
Transformers	\$5.23	\$1.05	\$3.86	\$3.28	\$4.40	\$2.02	\$3.64	\$23.49
Other	\$7.30	\$1.15	(\$0.02)	\$1.17	\$1.10	\$2.13	\$1.79	\$14.62
<b>Total Integrity Dollars in Millions</b>	<b>\$79.61</b>	<b>\$37.04</b>	<b>\$21.96</b>	<b>\$20.99</b>	<b>\$19.20</b>	<b>\$19.46</b>	<b>\$15.89</b>	<b>\$214.14</b>
Total Growth Dollars in Millions	\$27.25	\$11.94	\$5.57	\$5.73	\$13.37	\$11.60	\$11.92	\$87.38
<b>Total Distribution Dollars in Millions</b>	<b>\$106.86</b>	<b>\$48.98</b>	<b>\$27.53</b>	<b>\$26.72</b>	<b>\$32.56</b>	<b>\$31.06</b>	<b>\$27.81</b>	<b>\$301.52</b>

\*Additions for 2025 include plant placed in service through September 2025.

**VII. PRO FORMA PERIOD PLANT ADDITIONS**

**Q. WHAT PRO FORMA PLANT ADDITIONS IS BLACK HILLS POWER MAKING?**

A. Black Hills Power is planning to place a total of \$111.28 million of capital additions into service during the *Pro Forma* Period. Of that amount, \$37.46 million is related to distribution plant and \$7.22 million is related to general and intangible plant (categorized in Table MAP-7 below).

**Table MAP-7: Black Hills Power Total Company Pro Forma Additions October 2025 to September 2026**

Function	Amount
Generation Plant	\$60.08
Distribution Plant	\$37.46
Transmission Plant	\$2.29
General Plant	\$7.22
BHSC Allocated Plant	\$4.22
<b>Total Dollars in Millions</b>	<b>\$111.28</b>

1 **Q. ARE THESE INVESTMENTS NEEDED TO SERVE CUSTOMERS?**

2 A. Yes. The capital additions in the *Pro Forma* Period are needed to maintain system  
3 reliability, keep the system modernized, and are necessary to continue to serve customers  
4 safely and reliably.

5 **Q. IS BLACK HILLS POWER MAKING ANY PRO FORMA ADJUSTMENTS TO**  
6 **DISTRIBUTION PLANT IN THE TEST PERIOD?**

7 A. Yes. Black Hills Power includes approximately \$37.46 million of distribution plant  
8 additions in the *Pro Forma* Period, please see Table MAP-8 below for detail by category.  
9 The plant additions include a variety of projects for the benefit of customers associated  
10 with maintaining a safe and reliable system. Some examples are: Undergrounding  
11 existing overhead lines to enhance resiliency to weather and reducing wildfire risk;  
12 installing new underground feeder lines to serve new subdivisions; and replacing aged  
13 wood poles and conductors to ensure long term reliability of the system for all customers.

14 **Table MAP-8: Black Hills Power Total Company**  
15 **Pro Forma Distribution Additions**  
16 **October 2025 to September 2026**

<b>Category</b>	<b>Total</b>
Substation Equipment	\$1.78
Poles/Towers/Fixtures	\$9.00
Overhead Conductors	\$3.49
Underground Conduit	\$3.26
Underground Conductors	\$3.74
Transformers	\$3.72
Underground Services	\$2.50
Growth Projects	\$8.29
Other	\$1.68
<b>Total Dollars in Millions</b>	<b>\$37.46</b>

1 **VIII. WILDFIRE MITIGATION**

2 **Q. DOES BLACK HILLS POWER HAVE A WILDFIRE MITIGATION PLAN IN**  
3 **PLACE?**

4 A. Yes. Black Hills Power does have a Wildfire Mitigation Plan (“WMP”) in place. Please  
5 see Exhibit MAP-3 – Black Hills Power Wildfire Mitigation Plan.

6 **Q. WHAT IS WILDFIRE RISK AND HOW DOES IT FACTOR INTO OPERATING**  
7 **A PUBLIC UTILITY?**

8 A. Generally speaking, wildfire risk is the probability of a wildfire occurring and the  
9 potential harm it could cause to customers, communities, and property. This includes  
10 wildfires of all sources, whether natural or human-caused. For public utilities, wildfires  
11 present a hazard both physically, by causing damage to assets and communities that host  
12 those assets, and operationally, by causing outages and other service interruptions. There  
13 is also wildfire risk associated with operating electric infrastructure, which can be an  
14 ignition source under certain circumstances and conditions.

15 **Q. GENERALLY DESCRIBE THE WILDFIRE RISK WITHIN BLACK HILLS**  
16 **POWER’S SERVICE TERRITORY?**

17 A. Black Hills Power has long been committed to delivering energy to its customers safely  
18 and reliably. However, in recent decades wildfire risk has increased across the United  
19 States and in our service territory driven by a number of parallel trends, including  
20 environmental change, declining forest health (i.e. mountain pine beetle), and increased  
21 human development in wildland areas (the Wildland Urban Interface, or “WUI”), among  
22 others. The impact of these trends is that wildfires are becoming more common, more

1 severe, and more costly than in the past. Wildfire risk mitigation and management are  
2 challenges that require collaboration among communities, governments, public safety  
3 officials, and the private sector, including utilities. Given the increasing wildfire risk and  
4 our commitment to safety and reliability, wildfire risk mitigation and management is a  
5 top priority for Black Hills Power.

6 **Q. WHAT IS BLACK HILLS POWER’S APPROACH TO ITS WILDFIRE**  
7 **MITIGATION PLAN?**

8 A. Black Hills Power takes a risk-based approach to wildfire mitigation. This risk-based  
9 model allows Black Hills Power to identify and prioritize opportunities that most  
10 effectively mitigate and manage the identified risk. Black Hills Power’s mitigation  
11 strategies are grouped into three “layers” of wildfire risk mitigation and management.

12 The first layer is the Asset Programs. This layer is characterized by proactive  
13 equipment inspections and repairs, vegetation management, and other maintenance work  
14 to mitigate the risk that utility infrastructure becomes a source of ignition. The second  
15 layer is Integrity Programs. This layer entails system investments aimed at improving  
16 reliability and reducing risk. Some examples involve undergrounding electric  
17 distribution lines and applying construction standards that reduce the likelihood of  
18 wildlife interactions with our facilities. The third and final layer is the Operational  
19 Response layer. This layer entails the use of situational awareness tools to make risk-  
20 driven decisions during specific weather conditions. These risk-driven decisions can  
21 include: system reconfigurations, adjustment of daily work activities, modification of

1 equipment operation (setting automated reclosing devices to non-reclose), and potentially  
2 activating an emergency Public Safety Power Shutoff (“PSPS”).

3 **Q. DID BLACK HILLS POWER INCLUDE STAKEHOLDERS IN DEVELOPING**  
4 **ITS WMP?**

5 A. Black Hills Power met with numerous stakeholders in South Dakota and Wyoming  
6 through the course of developing its WMP. The primary focus of most of these meetings  
7 was to educate and strengthen relationships. Black Hills Power spent time educating  
8 stakeholders on its goals and objectives with the WMP, in addition to its current wildfire  
9 mitigation practices. Additionally, and perhaps more importantly, was ensuring these  
10 meetings included two-way communication so that the Company could learn more about  
11 each stakeholder or organization to understand how all stakeholders can partner or  
12 otherwise complement each other going forward.

13 The depth of feedback and engagement varied across all stakeholders. Some of  
14 these meetings established a good initial foundation on which the Company will continue  
15 building relationships, while other meetings occurred with longstanding partners and  
16 stakeholders with whom the Company is working to deepen and expand its collaboration  
17 into the area of wildfire mitigation and response planning. As Black Hills Power’s  
18 relationships with various stakeholders continues to expand and develop, particularly  
19 with respect to wildfire mitigation, the Company anticipates it will be better positioned to  
20 incorporate tangible feedback into future iterations of its WMP or general utility  
21 practices.

1 **Q. DID BLACK HILLS POWER CONDUCT A RISK ASSESSMENT FOR ITS**  
2 **WMP?**

3 A. Yes. Black Hills Power used publicly available information such as risk maps published  
4 by the Federal Emergency Management Agency (“FEMA”), as well as the data sets  
5 compiled by wildfirerisk.org (“WRO”) to gain a general understanding of wildfire risk in  
6 the regions that the Company serves.

7 Then, to gain a more specific understanding of wildfire risk, Black Hills Power  
8 partnered with an industry consultant to produce a Black Hills Power-specific wildfire  
9 risk analysis across its territory. Data utilized to conduct this risk analysis included  
10 vegetation and fire-behavior fuel models, topographic data, historical weather patterns,  
11 wildfire behavior simulations, and community data. The result of this analysis is a  
12 geospatial risk representation across Black Hills Power’s service territory and Hazardous  
13 Fire Areas (“HFAs”) categorizations. Maps showing the results of this analysis are found  
14 in Figures 6-8 of the Exhibit MAP-3 – Black Hills Power Wildfire Mitigation Plan.

15 Thereafter, Black Hills Power conducted circuit-level and pole-level risk  
16 assessments throughout its service territory. The risk assessments are discussed in detail  
17 in Section 2 of Exhibit MAP-3.

18 **Q. HOW DO THESE RISK ASSESSMENTS INFORM BLACK HILLS POWER’S**  
19 **WMP?**

20 A. The risk assessment guides Black Hills Power’s decision making with regard to wildfire  
21 risk within all three layers of the WMP. For example, regarding the Asset Programs  
22 layer, the risk assessments are used to prioritize the circuits during the annual

1 maintenance cycle so that work in HFAs is completed first. Similarly, with regard to the  
2 Operational Response Layer, the risk assessment can help Black Hills Power make  
3 operational decisions like adjusting work activities or configuring reclosers to be in a  
4 non-reclosing state. These assessments also help Black Hills Power to prioritize rebuilds,  
5 retrofits, and other system upgrades.

6 **IX. BLACK HILLS POWER'S ASSET MANAGEMENT PROGRAMS**

7 **Q. PLEASE DESCRIBE BLACK HILLS POWER'S ASSET MANAGEMENT**  
8 **PROGRAMS.**

9 A. In addition to preventative repair and maintenance activities, Black Hills Power's Asset  
10 Programs focus on (1) vegetation management; (2) line patrol (ground and air); and, (3)  
11 pole inspections and replacement. An important component of reducing wildfire risk is  
12 ensuring we maintain a good understanding of the condition of our assets, and  
13 implementing repairs as deficiencies are identified. Black Hills Power has formalized its  
14 internal procedures for these three key areas, and those procedures are subject to periodic  
15 internal review.

16 **Q. PLEASE PROVIDE AN OVERVIEW OF BLACK HILLS POWER'S**  
17 **VEGETATION MANAGEMENT ACTIVITIES.**

18 A. Black Hills Power conducts a range of vegetation management activities to enhance  
19 system reliability and reduce the possibility of ignitions from our assets. These activities  
20 include regular tree trimming, clearing of unwanted vegetation, and removal of hazard  
21 trees to maintain appropriate power line corridors. To the extent possible, Black Hills  
22 Power's vegetation management program is aligned with various industry guidelines and

1 regulatory requirements, including (i) the American National Standards Institute’s  
2 (“ANSI”) A-300, Part 1, (ii) the International Society of Arboriculture’s (“ISA”) Best  
3 Management Practices for utility pruning of trees, (iii) National Electric Safety Code  
4 (“NESC”) requirements for pruning and removal of interfering trees, and (iv) North  
5 American Electric Reliability Corporation (“NERC”) standards for vegetation  
6 management (including reliability standard FAC-003).

7 **Q. DOES BLACK HILLS POWER TARGET A CYCLE LENGTH FOR ITS**  
8 **VEGETATION MANAGEMENT?**

9 A. Yes, Black Hills Power targets the following time-based cycles for its vegetation work:

- 10 • Distribution Facilities: 4-year not to exceed 5-year cycles
- 11 • Transmission Facilities: 5-year cycles

12 **Q. ARE THERE FACTORS WHICH CAN IMPACT STRICT ADHERENCE TO A**  
13 **SPECIFIC CYCLE?**

14 A. Yes, the cycle length is described as a target because factors beyond Black Hills Power’s  
15 control can impact the ability to perform work within a given time frame. Those factors  
16 can include things like weather patterns, landowner engagement, and vegetation growth  
17 rates.

18 **Q. PLEASE PROVIDE AN OVERVIEW OF BLACK HILLS POWER’S LINE**  
19 **PATROL INSPECTIONS.**

20 A. Black Hills Power’s teams perform visual inspections of its electric facilities as part of its  
21 reliability and risk reduction strategies. Teams inspect equipment for hazards that may  
22 result in an outage or ignition and remediate those hazards consistent with Black Hills

1 Power's practices. Visual inspections can occur through ground line patrols or through  
2 aerial patrols. Black Hills Power targets completing at least one ground-level inspection  
3 for every line mile of the system (including transmission, sub-transmission, and  
4 distribution) every five years. Aerial patrols are conducted on sub-transmission and  
5 transmission lines on an annual basis. In addition to formal line patrols, Black Hills  
6 Power instructs its employees engaged in construction and maintenance activities to  
7 proactively identify electric facility conditions that could lead to an outage or an ignition.

8 **Q. PLEASE PROVIDE AN OVERVIEW OF BLACK HILLS POWER'S POLE**  
9 **INSPECTION PROGRAM.**

10 A. To the extent possible, Black Hills Power's pole inspection program leverages a  
11 combination of visual inspections, sound and bore tests, and excavations to evaluate the  
12 condition of wooden poles as well as applying treatments to poles to prevent decay or  
13 resist insects, thereby reducing the risk of pole failure and increasing the life of each  
14 asset. We perform an inspection every 10 years, not to exceed 12 years on all wood poles  
15 supporting distribution, sub-transmission and transmission facilities. Poles that do not  
16 pass inspection are remediated on a timeline identified in internal policy. Black Hills  
17 Power's pole inspection program is intended to identify and remediate poles that are no  
18 longer safe to use due to deterioration over time.

1           **X.     BLACK HILLS POWER’S LIGHTING CLASS CHANGES**

2   **Q.     PLEASE GIVE AN OVERVIEW OF BLACK HILLS POWER’S CURRENT**  
3   **PORTFOLIO OF LIGHTING FIXTURES.**

4   A.     The current lighting fixtures in use by Black Hills Power customers include company or  
5     customer owned High Pressure Sodium Vapor (“HPSV”), Metal Halide (“MH”) and  
6     Light Emitting Diode (“LED”) fixtures.

7   **Q.     PLEASE EXPLAIN WHY BLACK HILLS POWER IS PROPOSING TO MAKE**  
8   **CHANGES TO ITS LIGHTING CLASS OF CUSTOMERS.**

9   A.     As technology advances certain lighting standards become obsolete. The standard  
10    portfolio currently set forth in Black Hills Power’s tariff reflects HPSV and MH lights.  
11    Similar to the transition in the 1990’s when mercury vapor lights were phased out for  
12    HPSV lights, LED lights are now phasing out HPSV and MH lights. The general benefits  
13    of LED lights for customers include reduced energy consumption, a longer useful life,  
14    and improved color rendering. LED fixtures are also expected to be more resistant to  
15    vandalism and adverse weather than HPSV lights. Black Hills Power took the first step  
16    in this transition in 2022 with the introduction of a company owned 40-watt LED light.  
17    Currently there are no options in the tariff for customer owned LED lights or for Public  
18    Area Lights (“PAL”), the proposal explained in my testimony will help to complete Black  
19    Hills Power’s transition to the latest in lighting technology.

20   **Q.     HOW FAR ALONG IS BLACK HILLS POWER IN ITS LED TRANSITION?**

21   A.     Approximately 90% of the streetlights owned by Black Hills Power have been converted  
22    to LED. For PAL lights, approximately 40% of all fixtures have been converted to LED.

1 At this time, the LED conversion of Black Hills Power owned flood lights has not yet  
2 begun, but is planned for the near future.

3 **Q. PLEASE DESCRIBE BLACK HILLS POWER’S PROPOSED CHANGES TO ITS**  
4 **STREET LIGHTING CLASS OF CUSTOMERS.**

5 A. Black Hills Power currently offers energy only service for customer-owned HPSV and  
6 MH fixtures and HPSV, MH and LED fixtures for company-owned street lighting  
7 service. Currently, there is no option for customer-owned energy only service for LED  
8 fixtures. Black Hills Power is proposing the introduction of six tiers of wattages for  
9 customer-owned street lighting fixtures between zero and one thousand watts.

10 **Table MAP-9: New Customer Owned LED Street Lighting Categories**

<b>Street Lighting Categories</b>
0-99 Watt
100-199 Watt
200-299 Watt
300-399 Watt
400-499 Watt
1,000 Watt+

11  
12 In addition to the company-owned 40 Watt LED street lighting fixtures, Black Hills  
13 Power is also adding an optional company-owned 90 Watt fixture for customers who  
14 desire a brighter lighting option above what the standard 40 Watt fixture can provide.

15 **Q. PLEASE DESCRIBE BLACK HILLS POWER’S PROPOSED CHANGES TO ITS**  
16 **PRIVATE AREA LIGHTING CLASS OF CUSTOMERS.**

17 A. Black Hills Power currently offers HPSV and MH fixtures for Private or PAL. Just like  
18 with street lighting, the lighting fixtures being offered to customers need to reflect LED  
19 lighting standards. Black Hills Power is proposing to introduce a 40-watt LED light that

1 will meet the needs of all the HPSV and MV lights currently offered by Black Hills  
2 Power. For standard flood light fixtures Black Hills Power is proposing an LED fixture  
3 with 90- and 180-Watt options to replace the existing HPSV and MV options.

4 **XI. BLACK HILLS POWER'S POWER FACTOR ADJUSTMENT**

5 **Q. WHAT IS BLACK HILLS POWER PROPOSING WITH RESPECT TO THE**  
6 **POWER FACTOR ADJUSTMENT IN THIS RATE REVIEW?**

7 A. Black Hills Power is proposing to remove the current Power Factor Adjustment from all  
8 rate schedules billed in kilowatt (“kW”) demand and is proposing a new Power Factor  
9 Adjustment calculation utilizing both kW and Kilovolt-Amperes Reactive (“kVAR”).

10 **Q. WHAT IS POWER FACTOR?**

11 A. The power factor calculates how efficiently power is being used in a system. In simplest  
12 terms, power is comprised of three components – real power, reactive power, and  
13 apparent power. Real power is measured in kilowatts and is the energy that is actually  
14 performing the work, which also represents the demand billed by the utility (“kW”).  
15 Reactive power is measured in kVAR that is the non-working power caused by the  
16 magnetizing current required to operate devices. Reactive power does not perform any  
17 actual work and excessive reactive power, often caused by low power factor loads,  
18 increases current, leading to higher energy losses in lines and transformers. Finally,  
19 apparent power is measured in kilovolt-amperes (“kVA”) and is the true amount of power  
20 being used. A lower power factor (increased kVAR) causes the entire system of both  
21 generation and delivery to become inefficient. Conversely, a higher power factor  
22 indicates a more efficient electrical system.

1 **Q. WHY IS POWER FACTOR IMPORTANT?**

2 A. While reactive power does not directly power devices or light rooms, it is integral in  
3 sustaining the electromagnetic fields required for equipment operation. Managing kVAR  
4 is key to minimizing energy losses, optimizing power usage, saving costs, and improving  
5 system stability.

6 **Q. WHY IS BLACK HILLS POWER PROPOSING TO CHANGE THE POWER  
7 FACTOR ADJUSTMENT FACTOR FORMULA?**

8 A. The purpose of the Power Factor Adjustment is to encourage customers to address  
9 inefficiencies behind the meter and a formula utilizing kW only does not accomplish that.

10 **Q. WHY IS BLACK HILLS POWER PROPOSING TO SET THE POWER FACTOR  
11 ADJUSTMENT CHARGE TO ZERO?**

12 A. Black Hills Power has numerous customers that have meters that are not capable of  
13 reading kVAR and therefore, proposes to set the current power factor adjustment charge  
14 to zero, until all meters are capable of reading kVAR.

15 **XII. LINE LOSS STUDIES**

16 **Q. DID BLACK HILLS POWER PERFORM LINE LOSS STUDIES?**

17 A. Yes. Black Hills Power conducted two line loss studies - a transmission system line loss  
18 study and a distribution system line loss study.

19 **Q. WHAT IS A LINE LOSS STUDY?**

20 A. When electricity flows through power lines and transformers there is a portion of energy  
21 lost due to resistance of the wires and transformers. The energy lost is mainly in the form  
22 of heat; this concept is what makes a toaster work. On a power system, lost energy can

1 account for a large amount of power that is provided by a utility but not consumed  
2 directly by customers. These losses happen before flowing through a customer meter so  
3 they must be estimated through a study. A line loss study examines all components of a  
4 power system and utilizes measured and estimated data to calculate a percentage of loss  
5 on the system before reaching a customer.

6 **Q. PLEASE DESCRIBE THE TRANSMISSION SYSTEM LINE LOSS STUDY?**

7 A. Black Hills Power contracted with RMS Energy Co. LLC to perform the transmission  
8 system line loss study. The study included an analysis of Black Hills Powers 230 kV  
9 transmission system in South Dakota and Wyoming. The study used historical SCADA  
10 coincident peak data and steady-state power flow modeling. The objective of the study  
11 was to estimate transmission losses and corresponding loss factors. The transmission  
12 system line loss study is attached to my direct testimony as Exhibit MAP-4 –Black Hills  
13 Power Transmission Line Loss Study.

14 **Q. PLEASE DESCRIBE THE DISTRIBUTION SYSTEM LINE LOSS STUDY?**

15 A. Black Hills Power also contracted with RMS Energy Co. LLC to perform the distribution  
16 system line loss study. The study included an analysis of a loss-factor study to estimate  
17 real-power losses across Black Hills Power’s South Dakota and Wyoming 69 kV sub-  
18 transmission and distribution system. The objective was to estimate demand loss and loss  
19 factor values of real-power losses during high-load conditions. The study incorporated  
20 SCADA data, calibrated transmission and distribution power-flow models and equipment  
21 specific loss information. The distribution system line loss study is attached to my direct  
22 testimony as MAP-5 –Black Hills Power Distribution Line Loss Study.

1 **Q. PLEASE SUMMARIZE THE RESULTS FROM THE LINE LOSS STUDIES.**

2 A. Customers taking service under the large general service – 69 kV tariff will be assigned  
3 and responsible for total system losses of 2.61%. Customers taking service under  
4 industrial contract service – primary and large general service – primary tariffs will be  
5 assigned and responsible total system losses of 3.83%. Customers taking service under  
6 residential, general service, water pumping/irrigation, and lighting tariffs will be assigned  
7 and be responsible for total system losses of 5.04%.

8 **Table MAP-10: South Dakota Line Losses**

	<b>69 kV</b>	<b>Primary</b>	<b>Secondary</b>
Transmission	2.16%	2.16%	2.16%
69 kV	0.45%	0.45%	0.45%
Distribution Primary		1.22%	1.22%
Distribution Secondary			1.21%
<b>Total Losses</b>	<b>2.61%</b>	<b>3.83%</b>	<b>5.04%</b>

9  
10 **XIII. CONCLUSION**

11 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

12 A. Black Hills Power remains steadfast in its commitment to delivering safe, reliable, and  
13 resilient electric service to the communities we serve. Black Hills Power has made – and  
14 will continue making – significant, prudent investments in generation, transmission, and  
15 distribution infrastructure to ensure our system meets evolving reliability, safety, and  
16 wildfire mitigation needs. These investments, combined with our integrity programs,  
17 asset management initiatives, and operational strategies, have already produced  
18 measurable improvements in system performance, including substantial reductions in  
19 customer outage minutes. The capital additions included in this Application are

1            necessary, used and useful, and will continue to provide long-term benefits to our  
2            customers.

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

4    A.    Yes, it does.

**VERIFICATION**

This Direct Testimony and Exhibits of Michael A. Pogany is true and accurate to the best of my knowledge, information, and belief.

*/s/ Michael A. Pogany* \_\_\_\_\_  
Michael A. Pogany