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

APPLICATION OF BLACK HILLS POWER, INC. d/b/a BLACK HILLS ENERGY TO AMEND ITS COGENERATION AND SMALL POWER PRODUCTION SERVICE SIMULTAENOUS POWER TARIFF

Docket No. EL 21-___

March 19, 2021

TABLE OF CONTENTS

I.	INTRODUCTION AND QUALIFICATIONS	.1
II.	PURPOSE OF TESTIMONY	.1
III.	THE RENEWABLE READY SERVICE TARIFF	.2
IV.	TARIFF FORMAT	.7
V.	THE PROPOSED TARIFF	.8
VI.	MONTHLY RATE	11
VII.	BILLING AND PAYMENT	.13
VIII.	CONCLUSION	.13

I. <u>INTRODUCTION AND QUALIFICATIONS</u>

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jason S. Keil, and my business address is 7001 Mount Rushmore Road, Rapid
 City, SD 57702.

Q. PLEASE DESCRIBE YOUR EMPLOYMENT.

A. I am employed by Black Hills Service Company, LLC ("BHSC"), a wholly-owned subsidiary of Black Hills Corporation ("BHC"), as a Manager of Regulatory and Finance for Black Hills Power, Inc., d/b/a Black Hills Energy ("Black Hills Power").

Q. PLEASE DESCRIBE YOUR EDUCATION AND BUSINESS BACKGROUND.

A. I attended Bellevue University, where I received a Bachelor of Science degree in Accounting and a Master of Business Administration with an emphasis in Finance. I joined Black Hills Utility Holding Company ("BHUH") in 2013 as a Regulatory Analyst and accepted the position as Manager of Regulatory in January of 2016. In 2018, my position moved from BHUH to BHSC and my title changed to Manager of Regulatory and Finance. Prior to joining BHUH, I provided credit risk management leadership for ConAgra Energy Services (as Manager - Credit Risk), Minnesota Power, Inc. (as Credit Manager), IDACORP, Inc. (as Manager - Credit Risk), Black Hills Corporation (as Sr. Finance Manager / Credit Manager), and NRG Energy, Inc. (as Manager - Credit Risk). In these roles, I managed credit and market risk in relation to long-term strategic goals to ensure each respective company was taking proper precautions to mitigate credit and market risk, and to ensure each met regulatory and compliance requirements.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony discusses the principles behind the proposed amendments to Black Hills Power, Inc. d/b/a Black Hills Energy's ("Black Hills Power" or the "Company")

Cogeneration and Small Power Production Service ("QF Service Tariff") tariff to address the risk of the loss of the utility's fixed cost recovery due to behind-the-meter generation.

The proposed amendment to the tariff addresses fixed cost recovery concerns raised, but not addressed in the proceeding related to approval of the Company's Renewable Ready Service Tariff (Docket No. EL18-060).

III. THE RENEWABLE READY SERVICE TARIFF

O. PLEASE EXPLAIN THE RENEWABLE READY SERVICE TARIFF.

A. In response to an increasing number of customers seeking renewable energy in order to meet sustainability goals, Black Hills Power designed the Renewable Ready Service Tariff, which is a unique tariff to address certain risks associated with behind-the-meter generation. Without a cost-competitive renewable energy offering from the utility, behind-the-meter generation most often leads to increased costs for all customers. The Renewable Ready Service Tariff provides subscribing customers with a renewable energy option being generated by the jointly owned (Black Hills Power and Cheyenne Light, Fuel and Power Company) Corriedale Wind Project. The 52.5 MW Corriedale Wind Project supplies Cheyenne Light, Fuel and Power Company with 20 MW and Black Hills Power with 32.5 MW of renewable energy for service under their respective Renewable Ready Service Tariff. The Commission approved Black Hills Power's Renewable Ready Service tariff in Docket No. EL18-060. As part of its approval the Commission also approved a settlement between Black Hills Power and Commission Staff ("Staff"), which obligated Black Hills Power to make a proposal to Staff which would further address the

under-recovery of fixed costs which occurs when customers elect to install behind-themeter renewable generation. This application is the result of that proposal and further discussions with Staff.

Q. CAN YOU PROVIDE THE COMMISSION WITH AN UPDATE FOR THE RENEWABLE READY SERVICE?

A. Yes. We have successfully implemented the Renewable Ready program. All of Black Hills Power's 32.5 MW of the Corriedale Wind Project has been subscribed by large customers (the majority of subscriptions are for terms of 15 years or more). The project construction resulted in placing the wind project into commercial operation on November 30, 2020. Subscribing customers have begun receiving their allocations of renewable energy from the project.

Q. HAS BLACK HILLS POWER PREVIOUSLY DISCUSSED THE LEVEL OF ITS CUSTOMER CHARGES WITH THE COMMISSION?

- A. Yes, in its application to the Commission in Docket No. EL18-029, which adjusted rates in reponse to the federal Tax Cuts and Jobs Act ("TCJA"), Company witness Charlie Gray, provided testimony regarding the level and appropriateness of Black Hills Power's customer charges.

 Specifically, Mr. Gray discussed the intra-class subsidies which occur when monthly customer charges do not reflect the customer related cost, such as meters, service lines, transformers and customer billing and administrative costs. Mr. Gray demonstrated that the Company's customer charges were lower than actual customer related costs and recommended that Black Hills Power's customer charges be raised.
- Q. DID THE COMMISSION APPROVE NEW HIGHER CUSTOMER CHARGES IN THAT DOCKET?

A. Yes, the Commission approved the Company's proposed increases. However, the Company's recommendation did not raise customer charges enough to recover its full cost of service. Black Hills Power intends to accomplish the final step in having customer charges be fully reflective of the assigned customer-related costs at the time of the Company's next rate review.

Q. DID THE COMPANY'S TCJA PROPOSAL ADDRESS THE CONCERNS THAT THIS APPLICATION ADDRESSES?

A. Not completely. The customer related fixed costs are a small portion of the Company's total fixed costs associated with providing safe and reliable electric service. Mr. Gray's testimony also compared Black Hills Power's monthly customer charges with those of rural electric cooperatives who also serve within the Black Hills region. At that time, the Company's customer charges were one-third to one-half of the rural electric coopertives rates, meaning that the cooperatives recover a much higher percentage of their fixed costs of service through non-volumetric charges. This approach ensures greater revenue stability and protects all customers when customers add behind-the-meter renewable generation.

Q. PLEASE EXPLAIN THE CONCERNS THIS AMENDED TARIFF IS DESIGNED TO ADDRESS.

A. This proposed amendment to Black Hills Power's QF Service Tariff is designed to address the under-recovery of fixed costs when customers elect the installation of behind-the-meter generation that were not alleviated by the Renewable Ready Service Tariff and the TCJA docket.

Under the Commission's current and long-standing rate design practices, a utility's costs are recovered from customers through two and/or three part rate designs. The monthly charges for electric utility service include a customer charge and an energy charge, with larger customers also paying a demand charge. The energy and demand charges are applied to the customer's metered energy and demand, which varies based

upon usage during the billing period. A utility's cost of providing electric service includes both fixed and variable costs. Fixed costs, such as utility infrastructure (power plants, transmission, and distribution plant) do not change along with changes in the customer's purchase of electricity. Variable costs, such as fuel and purchased power, do change with the customer's purchase of electricity. In order to make electric service more widely available, monthly customer charges, which are paid by customers regardless of electricity usage during the billing period, have been kept low. The result is that utilities like Black Hills Power recover most of its fixed costs, which can be as much than 75% of its costs, through volumetric charges. So when a customer installs behind-the-meter generation to reduce their metered electricity consumption, under current rate design practices that customer no longer pays the actual cost related to their receiving reliable utility provided electric service. Over time, as rates are reviewed and adjusted, customers without behind-the-meter generation subsidize those who have installed behind-the-meter generation.

Q. CAN YOU PROVIDE AN ILLUSTRATIVE EXAMPLE OF HOW THIS CAN BE SEEN AS UNFAIR TO CUSTOMERS WITHOUT BEHIND THE METER GENERATION?

- A. Yes. Another way to understand this situation is to think of the utility as a car. Let's say that I own a car, but I decide to buy a bike and start riding it for some of my transportation needs. When I do this, what are my real savings?
 - Do I still need to make my car payment? Yes, the payment doesn't go away.

- Do I still need car insurance? Yes, insurance is still required but it may be
 a lower cost due to less miles driven.
- Do I still need to pay the mortgage, home insurance and property taxes related to my garage? Yes, these costs are fixed and don't go away.
- Do I still need to maintain my car? Yes, maintenance is still required but the frequency and cost may go down.
- Do I still need to buy gas? Yes, but not nearly as much and this is where my savings will come from.

So, as you can see, until I no longer require a car for my transportation needs, the majority of my "transportation cost" will remain fixed even though I decide to ride my bike instead of drive my car. The same is true for the utility when customers install behind-themeter generation.

Q. PLEASE GENERALLY EXPLAIN THE PROPOSED TARIFF.

A. Black Hills Power has proposed an amendment to its existing QF Service Tariff which sets forth avoided cost rates that will be paid by Black Hills Power to qualified small power production and qualified cogeneration facilities for customer generated energy. With the proposed amendment, Black Hills Power is increasing the applicability of this tariff to all qualified small generation facilities and qualified cogeneration facilities of 1MW or less. In addition, the proposed amendment provides for a "buy all, sell all" mechanism for these customers. The buy all, sell all mechanism ensures that qualified behind-the-meter generating customers pay for all their consumed energy under the applicable tariff rate schedules and receive compensation for all customer generated energy at Black Hills Power's calculated and Commission approved avoided cost rate.

Qualified Facilities generating 1 MW or greater will be subject to a negotiated power purchase agreement. This amendment provides the fixed cost protections not previously addressed by either the Renewable Ready Service Tariff or the TCJA docket.

IV. TARIFF FORMAT

Q. PLEASE EXPLAIN HOW A TYPICAL BACK-UP OR STANDBY TARIFF FUNCTIONS.

A. A typical back-up or standby tariff is utilized by the utility to set rates for the electricity provided to customers when their generating facility is not operating. The back-up or standby rate would include a component to recover the fixed costs of providing service. However, under the traditional approach for this type of tariff, a customer with behind-the-meter generation would only pay fixed costs when they were not generating and only on the energy consumed during such an outage. This type of mechanism would not prevent the increase in costs to other customers as they would absorb most of the fixed costs associated with the partial requirements service associated with self-generated electricity. This type of tariff does not properly protect all customers from increased costs due to behind-the-meter generation.

Q. PLEASE EXPLAIN HOW THE QF SERVICE TARIFF ENSURES RECOVERY OF FIXED COSTS.

A. The proposed QF Service Tariff for behind-the-meter generating customers protects all customers as it requires the self-generating customers to pay all costs associated with all energy consumed. The customer would remain on the appropriate tariff rate schedule and pay for all energy consumed – whether "self-generated" or from the "grid" – and thereby pay all fixed costs related to the customer's electric load.

V. THE PROPOSED TARIFF

Q. WHAT CUSTOMERS ARE ELIGIBLE FOR SERVICE UNDER THE QF SERVICE TARIFF?

A. The QF Service Tariff is available to Qualified Small Generating Facilities and Qualified Cogeneration Facilities ("Qualified Facility or Qualified Facilities") customers.

Q. WHAT IS A "QUALIFIED FACILITY?"

A. A Qualified Facility is a generating facility that has met all requirements as set forth in the Rules and Regulations of the QF Service Tariff and is in compliance with Sections 201 and 210 of the Public Utility Regulatory Policies Act ("PURPA").

Q. HOW MANY BLACK HILLS POWER CUSTOMERS HAVE INSTALLED AND INTERCONNECTED QUALIFIED FACILITIES?

A. The table below shows the yearly interconnections by customer class for Qualified Facilities:

Customer Class	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u> 2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Residential Connections	17	13	7	9	8	3	1	4
Commercial Connections	2	1	5	-	-	2	1	
Total Connections	19	14	12	9	8	5	2	4

Note:

2020 Residential - 14 connections complete and 3 in progress 2020 Commercial – 2 completed

As the table illustrates, there has been a steady increase in Qualified Facilites being interconnected over the last few years.

Q. HAVE BLACK HILLS POWER'S GENERATION ADDITIONS AND POWER PURCHASES INCORPORATED MORE RENEWABLE POWER SUPPLY?

A. Yes, Black Hills Power began adding utility-scale renewable power beginning in 2008.To date the Company has added:

•	Happy Jack Wind Energy	2008	30.0 MW
•	Silver Sage Wind Energy	2009	30.0 MW
•	PRPA Wind Energy	2018	12.0 MW
•	Corriedale Wind Energy	2020	32.5 MW
•	Fall River Solar Project	2022	80.0 MW

This totals 184.5 MW on a power system where the highest served native load one hour peak demand is only 370 MW (July 20, 2017).

Q. WHAT IS THE IMPACT ON EXISTING CUSTOMERS WITH QUALIFIED FACILITIES?

A. Existing customers with a Qualified Facility interconnected to the Black Hills Power distribution system as of May 31, 2021 will be exempt from the terms of the Amended QF Service Tariff until May 31, 2041. If applicable, these established customers will be subject to the terms of their existing Power Purchase Agreement with Black Hills Power and will not be subject to the terms of the QF Service Tariff, including the Energy Payment Rate and Production Meter Charge provisions. After May 31, 2041, all customers interconnecting a Qualified Facilities will be served under the QF Service Tariff and be subject to the Energy Payment Rate and the Production Meter Charge.

Q. IS THERE A COST ASSOCIATED WITH COMPLIANCE WITH PURPA?

A. Depending on the size and circumstances, there could be a cost associated with compliance with the PURPA regulations. However, many Qualified Facilities are able to self-certify which would have little associated cost. QF certification is a FERC requirement for a generating facility to interconnect with a utility's system.

- Q. PLEASE EXPLAIN THE REQUIREMENT FOR AN INTERCONNECTION STUDY FOR SERVICE UNDER THE AMENDED QF SERVICE TARIFF.
- A. Black Hills Power requires all Qualified Facilities to complete an interconnection study and execute an interconnection agreement prior to interconnecting to the system. This study is necessary as it allows Black Hills Power to evaluate the impact (equipment and cable limitations, contingency situations, requirement for system protection at the point of interconnection and the upline protective device) the interconnection will have on its system with the connection of each Qualified Facility and ensure consistent and reliable service to existing customers on the system. This study would include but not be limited to the analysis of voltage drop and rise, voltage flicker, harmonic issues, inverter meeting IEEE requirements, the short circuit contribution and proper coordination of protective devices.

Q. WHAT IS THE COST OF THE INTERCONNECTION STUDY?

A. Interconnection studies vary based on the size of the generating facility, but can cost thousands of dollars to complete. It would be difficult for Black Hills Power to set pricing in the tariff that would reflect the actual costs related to a study, so for transparency purposes, the QF Service Tariff provides for the payment of \$100.00 plus \$1.00 per kW of customer installed qualifying generation up to a maximum of \$1,000. This transparent pricing is fair to customers and will allow customers to properly evaluate the benefits and costs associated with installing a qualified generating facility.

Q. WHAT IS CONTAINED IN THE INTERCONNECTION AGREEMENT?

A. Prior to receiving service under the QF Service Tariff, customers will be required to execute an interconnection agreement with Black Hills Power. This agreement sets forth

the terms associated with interconnecting to the system and ensures such an interconnection does not interfere with the utility's ability to provide safe and reliable service to all customers.

Q. ARE THERE ANY OTHER CUSTOMER COSTS ASSOCIATED WITH SERVICE UNDER THE QF SERVICE TARIFF?

A. Yes. Service under this tariff requires the use of a production meter installed beyond the customer's traditional consumption meter to accurately measure the amount of energy generated by the Qualified Facility. The customer will be responsible for the cost of the installation of any wiring or electrical equipment necessary for the installation of the Company-owned meter. This cost responsibility is consistent with the customer responsibilities for the installation of standard consumption meters. As the Commission is aware, Black Hills Power does not perform the electrical work necessary to connect the meter to the customer's premises and requires such work to be completed by a qualified electrician.

The customer will be responsible for a monthly production meter charge, which I will explain in detail later in my testimony.

VI. MONTHLY RATE

Q. PLEASE EXPLAIN THE MONTHLY RATE FOR CUSTOMERS UNDER THIS TARIFF.

A. Under the QF Service Tariff, Qualified Facilities will be billed for all consumed energy, whether "self-generated" or from the "grid", under their tariff rate schedule. This rate includes all charges, adjustments, terms and payment conditions as set forth in the

applicable rate schedule. The QF Service Tariff is designed to apply to any customer served by Black Hills Power. This is the "buy all" portion of the Tariff:

Total Consumption = Energy delivered by the Company plus generation measured by the production meter less any excess generated energy delivered to the Company

Qualified Facilities will be paid for all generation as measured by the installed production meter at the avoided cost rate, or Energy Purchase Rate, as set forth in the Tariff. This is the "sell all" portion of the Tariff:

Monthly Energy Payment = Energy Purchase Rate x Production Meter Performance

The proposed Energy Purchase Rate for Black Hills Power is \$0.0248 per kWh, which is based on the 2019 approved methodology. The avoided cost calculation methodology and the associated Energy Purchase rate will be updated according to the requirements under 18 CFR § 201 on a biennial basis. Updates to Black Hills Power's Energy Purchase Rate will be filed with the Commission by July 1 of each odd-numbered year.

In addition to the buy all and sell all portion of the QF Service Tariff, Qualified Facilities will be responsible for a monthly production meter charge of \$10.00. This monthly charge is for the cost and maintenance of the production meter, billing, and administrative charges.

Q. WHAT IS THE BASIS FOR THE PRODUCTION METER CHARGE?

A. The monthly production meter charge is based on the estimated costs related to the production meter, customer billing, and administrative costs associated with the types of customers most likely to seek service under the amended QF Service Tariff. This charge is based upon an estimate, because Black Hills Power does not have sufficient data to

support a more precise calculation of this charge. Black Hills Power will address the appropriateness of the monthly production meter charges in its next rate review filing.

VII. BILLING AND PAYMENT

- Q. WILL FUTURE CUSTOMERS WITH QUALIFIED FACILITIES BE NET BILLED AS THEY ARE TODAY?
- A. No. Qualified Facilities served under this Tariff will not be net-billed however, required payments to and from Qualified Facilities will be netted on monthly bills for administrative ease.
- Q. PLEASE EXPLAIN THE PROCESS FOR PAYMENTS BETWEEN THE QUALIFIED FACILITY AND BLACK HILLS POWER.
- A. The Qualified Facility will receive a monthly bill that will include charges for all consumed energy in accordance with its applicable rate schedule. Also included on the bill will be the monthly energy payment owed to the customer for all energy generated. If the amount due for consumed energy exceeds the monthly energy payment, the Qualified Facility customer will make payment to Black Hills Power pursuant to the terms of its applicable rate schedule. When the monthly energy payments exceed the amount due for energy consumed, the amount due to the Qualified Facility customer will appear as a credit on future bills throughout the calendar year. Any amount due to the Qualified Facility customer at the end of the calendar year will be paid to the Qualified Facility within 30 days of the close of yearly books. The situation where an annual payment catchup is required should be rare.

VIII. <u>CONCLUSION</u>

Q. WHAT IS BLACK HILLS POWER PROPOSING WITH THIS FILING?

A. Black Hills Power is proposing the amendment to the QF Service Tariff as set forth in this filing. It is time to adjust the tariff to reflect current circumstance. The larger the load that is removed in the future from the system through behind-the-meter generation, the greater the financial impact will be to all customers. I believe now is the best time to address this risk, and that the Company's proposal is fair to all customers.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF PENNINGTON)

I, Jason S. Keil, being first duly sworn on oath, depose and state that I am the witness identified in the foregoing prepared testimony and I am familiar with its contents, and that the facts set forth are true to the best of my knowledge, information and belief.

Jason S. Keil

Manager - Regulatory & Finance

On this 18th day of March, 2021, appeared Jason Keil, not in my physical presence but rather appearing remotely by means of communication technology from 653 Conestoga Ct., Rapid City, SD 57701, known to me to be the person who executed the foregoing instrument, and acknowledged that he executed the same as his free act, and deed.

Notary Public

My Commission Expires June 22, 2023