BEFORE THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

APPLICATION OF BLACK HILLS POWER,)		
INC. d/b/a BLACK HILLS ENERGY FOR APPROVAL OF ITS 2016 – 2018		D. L. M. DV.16	
		Docket No. EL16	_
VEGETATION MANAGEMENT BUDGET)		

Black Hills Power, Inc. d/b/a Black Hills Energy ("Black Hills Power" or the "Company"), a South Dakota corporation, respectfully requests an order from the South Dakota Public Utilities Commission ("Commission") approving the Company's 2016 through 2018 vegetation management budget, subject to the condition that such approval shall not preclude Commission review of the project, including project and cost management, accounting data and methods, and the resulting balance in the regulatory asset, for prudence and reasonableness for rate recovery in any determination of rates, including both rate filings by Black Hills Power and rate reviews initiated by the Commission.

The Commission approved the establishment of the Vegetation Management Regulatory Asset ("VMRA") for Black Hills Power in Docket EL12-061. Per the associated stipulation ("Stipulation"), Black Hills Power is required to provide an annual report to demonstrate the actual vegetation management costs incurred, an explanation of the progress made on the overall five year plan and update the forecast for the remaining years based on actual progress to date.

On December 29, 2015, the Commission approved the extension to file the Company's vegetation management budget for 2016 through 2018 by March 31, 2016, in Docket EL15-050. On December 31, 2015, Black Hills Power filed its 2015 Vegetation Management Report requesting approval of its vegetation management activities from December 2014 through November 2015, and the VMRA balance of November 30, 2015 in Docket EL15-051. This application, in combination with Docket EL15-051, fulfills the annual reporting requirements from Docket EL12-061 for 2015.

2016 THROUGH 2018 PLANNED VEGETATION MANAGEMENT ACTIVITIES

The Company's vegetation management program is designed to provide a suitable Right-of-Way ("ROW") clearance by controlling vegetation growth that could interfere with the safe and reliable delivery of electricity. As stated in Docket EL15-051, the Company experienced several challenges to trimming the planned distribution circuits within the budgeted cost in 2015. Primarily, the conditions in the forested areas of Black Hills Power's service territory required more vegetation pruning and removal than originally assumed. As a result, the time and cost to trim the circuits in accordance with Black Hills Power's vegetation management specifications is higher than budgeted. The conditions of the forest continues to evolve, but it remains Black

Hills Power's responsibility to mitigate the threat of vegetation conflicting with overhead utility lines.

Incorporating the experience and knowledge gained from 2015, the Company has reevaluated the resources and work necessary to trim the remaining circuits within the plan period. The following table provides a comparative analysis of the revised total Company forecast for vegetation management costs and line miles from 2013 through 2018 to the budget provided in Docket EL14-108:

	Actual <u>2013</u>	Actual <u>2014</u>	Actual <u>2015</u>	Forecast <u>2016</u>	Forecast <u>2017</u>	Forecast <u>2018</u>	<u>Total</u>
Vegetation Expenses	\$ 3,040,928	\$3,245,370	\$4,408,631	\$6,278,762	\$4,388,915		\$21,362,606
EL14-108 Budget	2,743,893	3,294,507	3,343,341	3,320,142	3,599,996	\$741,449	17,043,328
Over\(Under) Spend	\$297,035	\$(49,137)	\$1,065,290	\$2,958,620	\$788,919	\$(741,449)	\$4,319,278
Line Miles Trimmed	353.34	426.43	222.50	749.60	463.17		

The updated plan is designed to trim the line miles that were not completed in 2015, and accelerate some trimming that was scheduled in 2017 and 2018, if resources allow. In order to complete the volume of work required, the Company is adding approximately eleven traveling contract crews to the typical thirteen local contract crews in 2016. Please see Exhibit A for the circuits budgeted for vegetation management expenditures in 2016 through 2017. The following South Dakota communities expect to see maintenance trimming in 2016: Sturgis, Whitewood, Newell, Nisland, Spearfish, Belle Fourche, Deadwood, Lead, Nemo, Rapid City, Keystone, Hill City, Custer, Black Hawk, and Summerset. Black Hills Power will continue patrolling remote lines in the Black Hills National Forest to identify and remove mountain pine beetle infested trees.

The revised budget reflects only the costs to complete the current trim cycle within the plan period, which is now targeted for 2017. Normal maintenance trimming is scheduled to begin on a new cycle upon conclusion of the current trim cycle. However, on-going normal maintenance costs are not being requested for inclusion in the VMRA. Black Hills Power's understanding of the intent of the VMRA is to provide a mechanism to record extraordinary vegetation management costs necessary to achieve the current trim cycle. The Company will work with Commission Staff to determine what, if any, changes are needed to the definition of the VMRA if the current vegetation management trim cycle is completed prior to the five year period ending March 31, 2018. Please also note that the 2018 budget provided in Docket EL14-108 has been adjusted from \$2,965,797 to \$741,449 above to reflect that only a quarter of the original 2018 budget was subject to the VMRA.

REVISIONS TO THE 2016 THROUGH 2018 VMRA BUDGET

The Company estimates that it will spend approximately \$4,300,000 more than originally budgeted to complete the trim cycle. However, Black Hills Power believes this updated vegetation management plan and corresponding trim cycle will result in lower long-term costs through increased system reliability and the reduced risk of a catastrophic event. The benefits of a normal vegetation trim cycle include fewer outages caused by vegetation and various weather conditions, increased efficiencies with normal routine maintenance causing less inefficient hot spotting clearing, easier to patrol ROWs, and fewer outages during major weather events.

There are many factors outside of the Company's control that are causing the forecasted increase in vegetation management costs, but none with greater impact than the mountain pine beetle infestation. The mountain pine beetle epidemic has altered the fundamental structure of the Black Hills National Forest and surrounding areas. Black Hills Power has calculated that it has 1,451 miles of 230kV, 69kV, and distribution line miles of exposure to areas within the Black Hills National Forest that either have or could be impacted by the mountain pine beetle. The mountain pine beetle infestation presents an increased exposure to vegetation impacts from outside the Company's ROW. This has effectively widened the ROW that Black Hills Power must maintain for vegetation management and increased the amount of vegetation that requires clearing.

Several incidents have occurred in which circuits trimmed in 2013, and considered oncycle, have new pockets of mountain pine beetles along the ROW. While the National Forest Service has stated the mountain pine beetle rate of spread is slowing, outbreaks are still occurring and are unpredictable and dispersed. Normal maintenance trimming is not adequate to address this threat, so the Company performs mid-cycle patrols to identify and remediate any threatening vegetation. In the areas impacted by mountain pine beetles, the remaining healthy trees are at greater risk of breaking because they are no longer shielded from high winds by adjacent trees. The forest thinning is causing new threats to power lines and requires additional pruning that is not limited to infested trees. Black Hills Power is not alone in spending significant money on mountain pine beetle vegetation management. Federal agencies, State agencies, and private land owners also spend millions of dollars fighting this epidemic and mitigating risks.

Even with a proactive vegetation management approach, there were two instances of circuits, on-cycle, in which trees outside of the Company's ROW fell into a Company owned distribution facility and caused small fires in 2015. Preventing fires related to tree and power line conflicts is obviously in the interest of public safety. In addition to public safety concerns, one potential financial scenario of not adapting the vegetation management program to the changing forest conditions would be the inability or increased cost to insure the Company from catastrophic events. If the number of claims associated with tree-related fires were to increase,

or the Company's vegetation management policies were to be found inconsistent with utility best practices, the Company may not be able to obtain cost effective insurance and may be required to self-insure.

The conditions of the forest have changed significantly since the original budget was created, and there is the possibility that the Company's program may need modifications during the remaining plan period to achieve the current trim cycle. There is no long-range model to precisely plan on the amount of vegetation that will need to be removed. For example, the Company trimmed or removed approximately 40,000 trees over 426 miles in 2014. In 2015, Black Hills Power trimmed or removed 49,000 trees over 222 miles. Year over year, significantly more trees were removed in an area half the line miles. The annual patrols continue to discover new vegetation threats to areas that are on-cycle, and areas that previously had normal vegetation maintenance trimming budgeted now require more extensive trimming. Regardless of the conditions in the forest, it remains Black Hills Power's responsibility to mitigate the threat of vegetation conflicting with overhead utility lines.

In order to manage costs and efficiency, Black Hills Power uses outside contractors to perform vegetation management trimming. The contractors work under the direction of the Vegetation Management Program Manager, who is charged with the overall management of the program. These specialized, trained crews follow industry standards and guidelines for quality and safety. The contractors were selected as part of a competitive bid process to minimize costs while meeting the technical specifications required by Company policy and industry best practices.

Black Hills Power expects to spend significantly more on annual normal maintenance trimming upon conclusion of the current trim cycle than the \$1,741,509 that is currently recovered from South Dakota customers in base rates. The Company is evaluating changing from a five year to four year trim cycle for distribution assets to mitigate risk associated with current vegetation conditions in Black Hills Power's service territory and ensure consistency with advancing industry best practices. Black Hills Power estimates the total Company cost to perform normal maintenance trimming on the entire system over a four year period will be \$16,400,000 for distribution circuits. The Company will need to manage this cost increase in between rate filings.

POTENTIAL CHALLENGES IMPACTING THE 2016-2018 VEGETATION MANAGEMENT ACTIVITIES

While the Company believes the outside contractors obtained are sufficient to complete the trim, there are a number of challenges that may impact the Company's ability to achieve its 2016 through 2018 forecast. For instance, the amount of work scheduled in 2016 is significantly more than previous years. As a result, the local vegetation management contractors are insufficient to accomplish the work budgeted in 2016. The Company will use contractors from

outside the Black Hills region to accomplish this extraordinary work load. With traveling contractors, Black Hills Power could experience uncertainty with their availability because this highly specialized workforce is in high demand by all electric utilities.

Besides contractor availability, traveling contractors and the volume of work also present a quality concern. The Company has placed an emphasis on obtaining local contractors due to cost effectiveness and the ability to develop crews using Black Hills Power's practices and standards. While there are industry standards for vegetation management, there can be differences in each utility's program, and the traveling crews may need additional training on Black Hills Power's practices. Internal resources will audit and inspect a sample of the contractor's work, with additional focus on traveling crews. The Company will require a full reclamation of the ROW, including any vegetation threats located outside the ROW.

Weather may also impact the Company's ability to trim certain areas of our service territory. The Company has overhead power lines that traverse remote areas of the Black Hills region. Some areas of the Black Hills National Forest are closed to travel during certain seasons, particularly winter. Other areas become difficult to reach and work in when the ground becomes saturated. Mild weather will assist Black Hills Power in achieving our budget, and the Company will be strategic about how crews are deployed.

COMPANY CONTACTS

The Company will be represented in this proceeding by the following persons. Correspondence regarding this proceeding should be directed to the following:

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CONCLUSION

Black Hills Power respectfully requests an order from the Commission approving the Company's 2016 through 2018 vegetation management budget, subject to the condition that such

approval shall not preclude Commission review of the project, including project and cost management, accounting data and methods, and the resulting balance in the regulatory asset, for prudence and reasonableness for rate recovery in any determination of rates, including both rate filings by Black Hills Power and rate reviews initiated by the Commission.

Dated this 30th day of March, 2016.

BLACK HILLS POWER

Tour Though a

Manager, Regulatory Services

BEFORE THE PUBLIC UTILITY COMMISSION OF SOUTH DAKOTA

STATE OF SOUTH DAKOTA)
	SS:
COUNTY OF PENNINGTON)

I, Jon Thurber, being duly sworn, do hereby depose and say that I am Manager, Regulatory Services for Black Hills Power, Inc. d/b/a Black Hills Energy, that I have read such Application, and that the facts set forth therein are true and correct to the best of my knowledge, information and belief.

Jon Thurber - Manager, Regulatory Services

Subscribed and sworn to before me this 30th day of March, 2016.

Notary Public

My Commission Expires: 9/14/2021