
STAFF MEMORANDUM

TO: COMMISSIONERS AND ADVISORS

FROM: KRISTEN EDWARDS, BRITTANY MEHLHAFF, AND PATRICK STEFFENSEN

RE: Docket EL15-051 – In the Matter of the Application of Black Hills Power, Inc. for Approval of the 2015 Vegetation Management Report
Docket EL16-012 – In the Matter of the Application of Black Hills Power, Inc. dba Black Hills Energy for Approval of its 2016-2018 Vegetation Management Budget

DATE: July 26, 2016

Commission Staff (Staff) submits this memorandum regarding its recommendations for the above-captioned matter.

BACKGROUND

On December 31, 2015, Black Hills Power, Inc. filed an Application for Approval of its 2015 Vegetation Management Report (Docket EL15-051). In this application, Black Hills Power, Inc. requests Commission approval of their vegetation management activities from December 2014 through November 2015 and the Vegetation Management Regulatory Asset (VMRA) balance as of November 30, 2015.

On March 30, 2016, after receiving an extension in Docket EL15-050, Black Hills Power, Inc. dba Black Hills Energy (BHE or Company) filed an Application for Approval of its 2016-2018 Vegetation Management Budget (Docket EL16-012). This Commission approval and the approval requested in Docket EL15-051 are 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 BHE and rate reviews initiated by the Commission.

These filings, collectively, represent the second annual compliance filing required with the establishment of BHE's VMRA in rate case docket EL12-061. This VMRA was created to spread BHE's increasing vegetation management costs over a longer timeframe, as these efforts have long-term benefits, and to provide a means of rate mitigation until rates stabilize. As approved in EL12-061, an annual expense amount of \$1,741,509 was allowed in base rates, and all annual expense over this amount accumulates, with interest, in the VMRA for a period of five years, commencing with the April 1, 2013 effective date and ending March 31, 2018. BHE is allowed to request recovery of this regulatory asset in a future rate case.

STAFF ANALYSIS

The Company has experienced some major challenges regarding vegetation management in recent years, including an increase in annual average precipitation which increased the vegetation growth activity and exposure to areas within the Black Hills National Forest impacted by the Mountain Pine Beetle infestation. The Mountain Pine Beetle not only impacts trees within the rights-of-way (ROW), but

creates issues for BHE's electrical system caused by trees outside of the established ROW. Mountain Pine Beetle infested trees outside the Company's existing ROW that could fall into the electrical lines must be removed in order to prevent reliability and safety issues. From 2007-2011, 80% of outages were caused by vegetation from outside of the ROW. Even when BHE's vegetation management activities are on-cycle, BHE must continue to patrol remote lines in the Black Hills National Forest to identify hazardous trees. Due to the unpredictable nature of the Mountain Pine Beetle, the amount of hazardous trees to be removed each year varies significantly.

At the same time BHE was experiencing problems associated with increased precipitation and the Mountain Pine Beetle infestation, BHE was transitioning from its tree trimming approach to its current integrated vegetation management (IVM) approach. BHE began implementing IVM principles on a system wide basis in 2013. The IVM approach is the practice of promoting desirable, stable, low-growing plant communities that will resist invasion by tall-growing tree species. Once the tall-growing species occupying the ROW corridors are eliminated by mechanical, chemical, or other means, the low-growing vegetation will be able to out-compete the taller-growing vegetation and make for cleaner ROW for generations to come. IVM is a long-term approach compared to BHE's past practices of "hot spotting" where the Company trimmed specific trees that were identified to immediately threaten conductor. While the "hot spotting" approach may be more economical in the short-term, IVM has shown to be more cost effective in the long-term. The IVM approach has become common place for utilities which operate in terrain similar to BHE, and the recent challenges presented by the Mountain Pine Beetle have reinforced the need for BHE to switch to the IVM approach at this time.

After three years of a switched focus to the IVM approach, BHE has already experienced a number of benefits of this new approach and will continue to see increased benefits as all circuits in BHE's system are trimmed utilizing IVM principles. These benefits, summarized below, are expected to translate to lower rates for BHE customers for years to come.

- Less time is required for crews to patrol and survey lines in ROW where IVM has been employed after outages occur, enabling crews to quickly diagnose outage causes and restore power to customers.
- The IVM maintained system is more resilient to major weather events like Storm Atlas due to the reduction in hazardous vegetation in and near ROW.
- The improved viewing of ROW where IVM has been employed enables crews to see structural concerns during regular patrols and identify them for maintenance work before they cause an outage.
- An IVM maintained ROW allows BHE to operate their system at its maximum operating potential.
- This new IVM approach allows for better land stewardship which promotes diversification of plant communities while creating various habitats for more wildlife and pollinators.

BHE provided great detail in their filings of the challenges they've faced thus far in their IVM/Mountain Pine Beetle efforts. Due to these challenges and lack of documented experience when preparing their initial budget, 2015 came in over budget and future budgets and trim cycles have had to be adjusted. As explained on Page 2 of the Application in Docket EL16-012, a four-year trim cycle will now be employed, and the total estimated cost has increased by approximately \$4.3 million, or approximately 25 percent, from what was estimated last year in Docket EL14-108. While Staff continues to see these costs as prudent to maintain the future reliability and safety of the BHE electrical system, Staff and BHE may have to explore avenues to provide continued rate mitigation to BHE customers. Depending on all the

other aspects of BHE's future rate case and Staff's holistic analysis of the factors, one possibility could be an extension of the regulatory asset amortization period beyond the five-year period originally agreed upon in EL12-061.

RECOMMENDATION

Staff recommends the Commission approve the vegetation management activities from December 2014 through November 2015 and the Vegetation Management Regulatory Asset (VMRA) balance as of November 30, 2015 provided in Docket EL15-051 and the 2016-2018 Vegetation Management Budget provided in Docket EL16-012 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 BHE and rate reviews initiated by the Commission.