
STAFF MEMORANDUM

TO: COMMISSIONERS AND ADVISORS
FROM: LORENA REICHERT & AMANDA REISS
RE: DOCKET EL19-034 – IN THE MATTER OF THE APPLICATION BY BLACK HILLS POWER, INC. DBA BLACK HILLS ENERGY FOR APPROVAL OF A REVISION TO THE COMMERCIAL AND INDUSTRIAL ENERGY EFFICIENCY SOLUTIONS ADJUSTMENT (EESA) RATES
DATE: November 22, 2019

BACKGROUND

On October 1, 2019, Black Hills Power, Inc. dba Black Hills Energy (BHE) filed an application for commission approval to adjust its Energy Efficiency Solutions Adjustment (EESA) rates. The application included Program Year (PY) 2018 results, revised tariff pages reflecting the proposed EESA rates, and other supporting data.

Currently, the EESA rates are \$0.0005/kWh for residential customers and \$0.0010/kWh for commercial and industrial customers. BHE's proposed EESA rates to be implemented on December 1, 2019, are \$0.0005/kWh for residential customers and \$0.0015/kWh for commercial and industrial customers.

The Commission approved an extension to BHE's Energy Efficiency Plan for Program Years 2017 through 2019 in Docket EL17-026. Most recently, in Docket EL18-043, the Commission removed the Energy Star Light Fixture measure as of the end of November 2018 for PY2018, and for the full year in PY2019, per staff's recommendation.

STAFF'S ANALYSIS OF FILING

Staff conducted a comprehensive review of BHE's filings in this docket and obtained additional information through discovery. Staff's review identified several concerns that needed to be addressed. Each of these concerns is discussed here.

Removal of ENERGY STAR LED Fixtures, as Directed by Docket EL18-043

Staff confirmed with the company the removal of ENERGY STAR LED Fixtures in the current filing. As directed by Docket EL18-043, approved by order on November 29, 2018, the ENERGY STAR LED Fixture Budget and participation was removed for PY2018, except for 3 months, and for all of PY 2019. PY2018 ran from September 2018 to August 2019. Because the Company was not ordered to remove the ENERGY STAR LED Fixtures until the end of November 2018, the Company left the fixtures for the three months prior to the November order. As the ENERGY STAR LED Fixtures were originally budgeted for 500 participants for PY2018, the participation goal was decreased to a quarter of that, at 125 participants.

The changes from the original budget due to removal of ENERGY STAR LED Fixtures are as follows:

	PY2018 (Original)	PY2018 (Docket # ELI8-043)	PY2019 (Original)	PY2019 (Docket # EL18-043)
Residential Lighting Program				
Residential Lighting Participants	4,560	4,185	4,620	4,120
Residential Lighting Budget	\$33,962	\$30,212	\$34,374	\$29,374
<i>Residential Lighting Energy (kWh) Savings</i>	<i>164,283</i>	<i>139,933</i>	<i>166,231</i>	<i>133,764</i>
Total Budget	\$863,725	\$859,975	\$876,866	\$842,492
Total Energy (kWh) Savings	5,140,590	5,116,240	5,180,783	5,148,316

Ending Balancing Account Change

Staff confirmed with the company why the ending balancing account, as of August 2018, for PY2017 changed in this year's filing from what was filed for the August 2018 balance in last year's filing. After last year's EESA filing for PY2017 program costs, the Company received an additional \$1,194.65 worth of expenses from Montana Dakota Utilities for the Home Energy Audit program that were related to the PY2017 program costs that were not included in the 2018 filing. This year's filing included the additional costs in the August 2018 balance of the balancing account to allow the Company to recover the allowable costs.

Whole House Efficiency Program Measure Life Changes

Because the installations of specific energy efficiency measures are not known until an audit is completed and the customer actually chooses what measures to install, the measure life for the Whole House Efficiency Program *Recommended Audit Measures* were updated to reflect the actual weighted average life based upon actual installed measures. The measure life will be updated each Program Year once all install measures are known.

PY 2018 Benefit/Cost Tests

Actual energy efficiency spending for PY2018 proved to be cost effective even while coming in over budget and with lower than expected participation. As shown below, the total portfolio had a TRC score of 1.27. The Residential Program reported a TRC of 0.88. The Commercial and Industrial Programs provided strong results with a TRC of 1.58, improving over last year's TRC of 1.21.

Benefit/Cost Tests for PY2018					
Program	TRC	Utility	Societal	Part	RIM
Residential Lighting	1.01	2.34	1.37	5.47	0.2
Appliance Recycling	0.92	1.1	1.26	12.65	0.18
High Efficiency HVAC	0.64	1.33	0.88	4.23	0.18
Whole House Efficiency	0.64	0.64	0.87	-	0.16
School-Based Education	1.24	1.24	1.69	-	0.19
Total Residential Programs	0.88	1.3	1.21	8.45	0.19
C&I Prescriptive	1.02	2.02	1.35	4.88	0.27
C&I Custom	1.66	1.7	2.22	8.6	0.25
Total C&I Programs	1.58	1.73	2.11	8.14	0.25
Total Portfolio	1.27	1.43	1.7	8.19	0.24

In the filing, Staff had concerns regarding the Residential High Efficiency HVAC Program. In the Company's 2018 Status Report, there were a variety of challenges with the program cited and were similar in nature to challenges that were cited in the PY2017 Status Report for the program.

Staff supports BHE's continued offering of the Residential High Efficiency HVAC program if the heat pump portion of the program is removed while the air conditioning portion of the program remains. With heat pumps performing at a TRC well below 1 for PY2017 and PY2018, eliminating this measure will push the Residential High Efficiency HVAC program to be cost effective. In fact, eliminating the heat pump measure from the High Efficiency HVAC program raises the Total Residential TRC from 0.88 to 1.04.

Staff also had concerns regarding cost effectiveness the Appliance Recycling Program going forward. In the 2018 Status Report, the Company noted increased participation in rural areas, increasing the expenses for pickup location distances. The company relayed to staff that they will be working to reduce costs by having the contractor schedule the area trips when there are multiple refrigerators and/or freezers to be picked up in one area. The company will also be collaborating with community groups in more rural areas to promote program awareness and organize appliance recycling events where multiple customer pickups may be scheduled to reduce costs in those areas. Staff supports BHE's continued offering of the Appliance Recycling Program with these steps to reduce costs.

At a total portfolio level, BHE continues to have a cost-effective portfolio for its customers. Furthermore, eliminating the heat pump measure will raise the total portfolio from 1.27 to 1.32.

Energy Efficiency Solutions Adjustment Rates

BHE submitted a balancing account, rate calculation sheet, and tariffs. The rates before the Commission for approval are \$0.0005/kWh for residential and \$0.0015/kWh for commercial and industrial. From the

rates currently, this results in no change for residential customers and an increase for commercial and industrial customers.

Staff reviewed the balancing account and found that the BHE properly accounted for the PY2018 fixed percentage incentive of \$257,992. This incentive is capped at 30% of the approved budget.

Should the Commission choose to eliminate the Heat Pump SEER ≥ 15 , EER ≥ 12.5 , HSPF ≥ 8.5 Replace Electric Furnace Measure per Staff's recommendation, the PY2018 Budgeted Program Expenditures will be revised to the following:

<u>Line No.</u>	<u>Description</u>	<u>Reference</u>	<u>Residential (SDEES1)</u>	<u>C & I (SDEES2)</u>
1	Balancing Account as of 8/31/2019		\$ 54,999	\$ 256,771
2	Estimated EESA Revenues (9/1/2019 to 11/30/2019)		\$ (57,348)	\$ (155,814)
3	PY2019 Budgeted Program Expenditures*		\$ 173,687	\$ 689,589
4	PY2019 Budgeted Fixed Percentage Incentive	Line 3 x 30%	\$ 52,106	\$ 206,877
5	Total Estimated Recoverable Costs		\$ 223,444	\$ 997,423
6				
7	Forecasted kWh Sales (12/1/2019 to 11/30/2020)		518,254,237	667,044,553
8				
9	Proposed EESA Rate (Effective 12/1/2019)		\$ 0.0004	\$ 0.0015
10				
11	Current EESA Rate (Effective 12/1/2018)		\$ 0.0005	\$ 0.0010
12				
13				
14	*The budgeted PY2019 Residential High Efficiency HVAC program costs related to the Heat Pump program were taken out except for one quarter			

The staff recommendation before the Commission for approval is \$0.0004/kWh for residential and \$0.0015/kWh for commercial and industrial. Compared to the proposed rates for approval, this lowers the residential rate by \$0.0001/kWh for residential customers.

STAFF RECOMMENDATIONS

Staff makes the following recommendations to the Commission:

- 1) Approve the Updated PY2018 Status Report;
- 2) Approve the PY2018 fixed percentage incentive of \$257,992;
- 3) Revise the Portfolio to eliminate the measure - Heat Pump SEER ≥ 15 , EER ≥ 12.5 , HSPF ≥ 8.5 Replace Electric Furnace; and
- 4) Approve the proposed EESA rates of \$0.0004/kWh for residential customers and \$0.0015/kWh for commercial and industrial customers, and the associated tariff sheets, with an effective date of December 1, 2019.