

TO: COMMISSIONERS AND ADVISORS
FROM: DARREN KEARNEY, BRIAN ROUNDS, AND KAREN CREMER
SUBJECT: STAFF RECOMMENDATION FOR DOCKET NG14-007
DATE: DECEMBER 18, 2014

STAFF MEMORANDUM

OVERVIEW

On October 3, 2014, Montana Dakota Utilities (MDU or company) filed its proposed Natural Gas Conservation Portfolio (Portfolio) for years 2015 through 2017. The company plans to start the new Portfolio of energy efficiency measures on January 1, 2015. The Portfolio contains programs and rebate incentives similar to those in the currently approved Portfolio for 2012-2014,¹ with a few minor changes. Discussed within this memo are MDU's proposed changes to the Portfolio, the proposed budgets for the Portfolio, the cost-effectiveness of the proposed Portfolio, the proposed performance incentive for the Portfolio, and the forecasted customer bill impacts that result from the proposed Portfolio. Also included in this memo is Staff's recommendation.

PROGRAM CHANGES TO THE 2015-2017 PORTFOLIO

MDU proposes one change to its Portfolio of programs to be offered in 2015-17. This change involves discontinuing the \$100 rebate for high efficiency residential water heaters. Upon review of the residential water heater program, MDU determined the program is no longer cost effective and, thus, removed it from the Portfolio. Staff agrees with the removal of the residential water heater program and recommends the commission approve this change.

PROPOSED BUDGETS FOR THE 2015-17 PORTFOLIO

For its 2015-17 Portfolio, MDU proposes a sizeable increase in the Portfolio's budget based on the budget originally approved by the commission in docket NG11-006. However, MDU did increase the 2012-14 Portfolio budgets in annual filings as demand

¹ See docket NG11-006

for rebates dictated the need to do so. Table 1 provides the actual spending for 2012 and 2013, budgeted spending for 2014, and the proposed budgets for 2015 through 2017. The table also provides the year over year change for reference. Staff believes the budgets proposed for the 2015-17 Portfolio are reasonable based on the demand for programs MDU experienced in 2013 and the forecasted demand for the programs in 2015 through 2017. As such, Staff recommends the commission approve the proposed budgets for the 2015-17 Portfolio.

Figure 1. MDU’s Natural Gas Conservation Portfolio Actual Costs and Budgets

	2012 ¹	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
	A	A	B	B	B	B	YOY	YOY	YOY	YOY	YOY
Residential											
Furnaces - 92-94% AFUE	600	-	-	-	-	-	-	-	-	-	-
Furnaces - 95+ AFUE - New	7,800	63,300	45,000	45,000	51,000	57,000	712%	-29%	0%	13%	12%
Furnaces - 95+ AFUE - Replacement	24,000	56,700	67,500	67,500	75,000	82,500	136%	19%	0%	11%	10%
Water Heating (.62 EF)	150	-	-	-	-	-	-	-	-	-	-
Water Heating (.67 EF)	900	3,400	3,500	-	-	-	278%	3%	-	-	-
Programmable Thermostats	1,060	2,820	3,000	3,600	4,000	4,400	166%	6%	20%	11%	10%
Total Residential	34,510	126,220	119,000	116,100	130,000	143,900	266%	-6%	-2%	12%	11%
Commercial											
Furnaces - 95+ AFUE - New	0	0	300	300	600	600	-	-	0%	100%	0%
Furnaces - 95+ AFUE - Replacement	1,200	2,100	3,000	3,000	3,600	4,200	75%	43%	0%	20%	17%
Custom Efficiency	0	0	600	600	600	600	-	-	0%	0%	0%
Total Commercial	1,200	2,100	3,900	3,900	4,800	5,400	75%	86%	0%	23%	13%
Energy Audit Program	500	22,050	25,000	25,000	25,000	25,000	4310%	13%	0%	0%	0%
Administration and Promotion	8,681	17,656	17,000	18,000	21,000	24,000	103%	-4%	6%	17%	14%
Total Programs	63,637	168,026	164,900	163,000	180,800	198,300	164%	-2%	-1%	11%	10%

1) Includes January to March Costs Not Shown in Table (\$18746)

TOTAL RESOURCE COST TESTS FOR THE 2015-17 PORTFOLIO

Within docket NG14-007, MDU provided cost-benefit analysis² of its 2015-17 Portfolio. Cost-benefit analysis of the program included the Total Resource Cost (TRC) test, Ratepayer Impact test, Participant test, Utility test, and Societal test. Table 2 provides MDU’s forecasted TRC test results for each program. Historically, Staff has used the TRC test to determine if energy efficiency programs are cost-effective and continues to do so with MDU’s proposed portfolio. Staff recommends that the commission approve MDU’s proposed portfolio given that all programs are forecasted to have a TRC greater than 1.0. That is, the Portfolio’s forecasted benefits are expected to outweigh the Portfolio’s forecasted costs.

² Attachment B included in Docket NG14-007

Table 2. Forecasted TRC Test Results for MDU's 2015-17 Portfolio

	TRC
Residential	
Furnaces - 95+ AFUE - New	1.77
Furnaces - 95+ AFUE - Replacement	1.99
Water Heating (.62 EF)	-
Water Heating (.67 EF)	-
Programmable Thermostats	1.64
Total Residential	
Commercial	
Furnaces - 95+ AFUE - New	1.76
Furnaces - 95+ AFUE - Replacement	1.99
Custom Efficiency	2.16
Total Commercial	
Total Programs	1.92

PERFORMANCE INCENTIVE

In response to Staff data request 1-14, MDU identified that the company proposes a performance incentive cap as calculated by multiplying the company's tax adjusted rate of return by 125% of the approved budget. Staff disagrees with this proposed incentive cap and believes the performance incentive should be capped at the rate of return multiplied by 100% of the budget. Table 3 shows the calculations of the proposed performance incentive for the 2015-17 Portfolio. Staff recommends the commission approve Staff's proposed performance incentive cap, which is consistent with performance incentive caps set for energy efficiency programs offered by other investor owned utilities in South Dakota.

Table 3. Performance Incentive Calculations

	2015	2016	2017
Total Program Budget	\$ 163,000	\$ 180,800	\$ 198,300
Minimum Incentive ¹	\$ 8,150	\$ 9,040	\$ 9,915
MDU Proposed Incentive Max ²	\$ 23,859	\$ 26,465	\$ 29,026
Staff Proposed Incentive Max ³	\$ 19,087	\$ 21,172	\$ 23,221

1) Minimum set at 5% of Budget

2) MDU Proposes ROR x 125% of Budget

3) Staff Proposes ROR x 100% of Budget

CUSTOMER BILL IMPACTS

MDU's Natural Gas Conservation Portfolio for 2015 is expected to add \$0.025 to the overall rate.³ This equates to a monthly bill impact of \$0.15 per month for the average residential customer using 70 dekatherms annually. For small commercial customers that use approximately 125 dekatherms annually, the monthly bill impact is forecasted to be \$0.26 per month in 2015. Finally, the monthly bill impact for large commercial customers, that use approximately 1,200 dekatherms per year, is forecasted to be \$2.50 per month in 2015.

AREAS FOR IMPROVEMENT IN YEARS 2015-2017

MDU forecasts that few customers will take advantage of its commercial programs. It is Staff's opinion that MDU should work on stimulating participation in its commercial programs in order to further achieve cost-effective natural gas conservation. While Staff supports MDU's portfolio for 2015-17 as proposed, Staff also urges MDU to work on building demand for its commercial programs.

STAFF RECOMMENDATION

In summary, Staff makes the following recommendations:

- 1) The commission approve the removal of high efficiency water heaters from MDU's 2015-17 Portfolio,
- 2) The commission approve MDU's 2015-17 proposed Portfolio and proposed budgets, and
- 3) The commission approve Staff's proposed performance incentive cap as calculated by multiplying MDU's tax-adjusted rate of return by 100% of the approved budget.

³ See Response to Staff DR 1-6