
STAFF MEMORANDUM

TO: COMMISSIONERS AND ADVISORS
FROM: JOSEPH REZAC & AMANDA REISS
RE: GE19-002 - In the Matter of the Filing by MidAmerican Energy Company for Approval of Its Reconciliation and Annual Report for 2018 and 2018 Reconciliation for the Energy Efficiency Cost Recovery Factor
DATE: May 23, 2019

OVERVIEW

Since 2009, MidAmerican Energy Company (MidAmerican) offered energy efficiency programs to both electric and natural gas customers located within their service territory. In this docket, MidAmerican submitted its 2018 annual report, 2018 reconciliation of expenses and revenues, and proposed 2018 Energy Efficiency Cost Recovery (ECR) rates for Commission review and approval. It should be noted that the 2019 Energy Efficiency Plan budgets were approved by the Commission in docket GE17-002.

This memo provides a summary of MidAmerican's 2018 plan performance and Staff's recommendation.

2018 ENERGY EFFICIENCY PLAN RESULTS

In 2018, MidAmerican came in under budget for both gas and electric programs. Actual spending energy savings, and further discussion are provided in detail below.

Electric Program Budgeted vs. Actuals

Results from MidAmerican's 2018 electric programs are provided in Table 1. Looking at energy savings, MidAmerican experienced less energy savings than forecasted. Rolling up all electric programs, energy savings were 139,553 kWh in 2018, or 20% less than the energy savings goal for the year. From a spending perspective, MidAmerican came in 16% below the budget in 2018 for all electric programs. Electric program spending was 1% below the budget for residential programs and 45% below the budget for nonresidential programs.

Table 1 2018 Electric Program Results Summary						
Program	Energy Savings (kWh)			Expenditures		
	Budgeted	Actual	% Difference	Budgeted	Actual	% Difference
Residential Equipment	49,010	45,778	-7%	\$ 24,438	\$ 36,810	51%
Residential Audit	-	-	-	-	\$ 1	0%
Residential Load Management	2,288	147	-94%	\$ 17,500	\$ 7,550	-57%
Residential Appliance Recycling	14,092	8,517	-40%	\$ 4,350	\$ 1,353	-69%
Total Residential	65,390	54,442	-17%	\$ 46,288	\$ 45,714	-1%
Nonresidential Equipment	109,792	85,110	-22%	\$ 24,432	\$ 13,341	-45%
Total Nonresidential	109,792	85,110	-22%	\$ 24,432	\$ 13,341	-45%
Total	175,182	139,552	-20%	\$ 70,720	\$ 59,055	-16%

Gas Program Budgeted vs. Actuals

Results from MidAmerican's 2018 gas programs are provided in Table 2. Focusing on energy savings, the residential gas programs had 27% more energy savings than the goal and nonresidential gas programs had 17% more energy savings than the goal. Total energy savings for all programs in 2017 was 207,983 therms, or 25% more energy savings than the overall goal for the year.

Looking at spending, MidAmerican came in slightly under budget for both residential gas program and slightly over budget nonresidential gas programs in 2018. Residential program spending was 1% below the budget and nonresidential program spending was 8% above the budget. In 2018, a total of \$552,206 was spent out of the approved \$552,609 budget.

Table 2 2018 Gas Program Results Summary						
Program	Energy Savings (therms)			Expenditures		
	Budgeted	Actual	% Difference	Budgeted	Actual	% Difference
Residential Equipment	138,914	176,358	27%	\$ 503,925	\$ 499,737	-1%
Residential Audit	-	-	0%	\$ -	\$ 1	0%
Total Residential	138,914	176,358	27%	\$ 503,925	\$ 499,738	-1%
Nonresidential Equipment	27,137	31,624	17%	\$ 48,684	\$ 52,092	7%
Small Commercial Energy Audit	-	-	0%	\$ -	\$ 376	0%
Total Nonresidential	27,137	31,624	17%	\$ 48,684	\$ 52,468	8%
Total	166,051	207,982	25%	\$ 552,609	\$ 552,206	0%

Benefit/Cost Analysis of Electric Programs

Table 3 shows the 2018 benefit/cost test results for the electric programs. The total resource cost (TRC) test is highlighted in the table. This test is used by Staff to determine whether the program is cost effective. Overall, MidAmerican's electric energy efficiency programs were demonstrated to be cost effective.

Table 3 2018 Electric Program Benefit/Cost Test Results					
Program	TRC	PART	RIM	UTILITY	SOCIETAL
Residential Equipment	1.24	1.78	0.68	1.19	1.60
Residential Appliance Recycling	5.35	6.79	1.83	5.35	6.45
Nonresidential Equipment	1.19	1.51	0.81	2.94	1.73
Total Electric	1.29	1.70	0.78	1.75	1.74
Residential Load Management	1.48	1.00	0.80	8.00	1.63

Benefit/Cost Analysis of Gas Programs

Table 4 shows the 2018 benefit/cost test results for the gas programs. Again, the total TRC test is highlighted in the table. All measures included in the gas program passed the TRC test threshold except for one. The residential equipment – furnace measure reported a TRC score of only 0.64¹. In response to Staff Data Request 1-11, MidAmerican outlined reasons for the low TRC.

Table 4 2018 Gas Program Benefit/Cost Test Results					
Program	TRC	PART	RIM	UTILITY	SOCIETAL
Residential Equipment	0.70	1.10	0.63	2.22	1.15
Nonresidential Equipment	1.30	1.63	0.81	3.87	2.15
Total Gas Program	0.75	1.70	0.78	1.75	1.74

Given how much of the program's budget dollars are attributable to the gas furnace measure, Staff took rather strenuous look at why the program reported a low TRC for 2018. MidAmerican reports very strong energy savings and expenditures related to the program so seeing the low TRC came as a bit of a surprise. With the new 5-year program approved in GE17-003 MidAmerican revised its Technical Reference Manual (TRM) and program assumptions to follow the Iowa TRM. The Iowa TRM is revised every year and goes into effect January 1 of each year.

¹ See Exhibit E, Page 15 of 20, included in MidAmerican's initial filing

The new Iowa TRM gas furnace assumptions saw a variety of changes which affected associated TRC scores. According to MidAmerican, the incremental cost almost doubled which resulted in lower than expected TRC scores. HVAC contractors were surveyed as a part of the current TRM and results of those surveys were incorporated in the most recent version of the Iowa TRM. In discussion with staff, MidAmerican indicated they are participating in a cost study to better the inputs and underlying assumptions as they feel the current TRM is somewhat biased given the drastic shift in incremental costs. According to MidAmerican, results from their survey will be available come June and the Iowa TRM oversight committee will have such information when preparing the next TRM to be filed in or around the August-September timeframe for a January 1, 2020 effective date.

For comparison sake, if MidAmerican were to utilize the same assumptions that were applied when the Energy Efficiency Plan was approved, the Residential Equipment - Furnace TRC for 2018 would be 1.36 as opposed to 0.64. This new TRC would also raise the total Gas Residential Equipment Program to 1.42 from the current 0.75. Depending upon which version of the TRM is applied to the MidAmerican's program results, one can get a completely different view on how cost-effective the program is. Staff's recommendation and further thoughts on how to proceed given this information are found at the end of this memo.

2018 PERFORMANCE INCENTIVE

Recovery of the 2018 performance incentive is included in the proposed electric and gas ECR rates for 2019. Since both the gas and electric programs came in under budget in 2018, the performance incentives were calculated using actual program costs. The electric program has an incentive of \$4,087 and the gas program has an incentive of 38,212. They are included in their respective ECR factors for recovery in 2019.

2019 ENERGY EFFICIENCY COST RECOVERY FACTORS

Staff reviewed MidAmerican's calculations for the gas and electric 2019 ECR factors and found the factors to be properly calculated. Table 5, below, provides the proposed 2019 electric ECR factors and the estimated annual bill impact for a typical customer's utility bill from the current ECR rates.

Table 5 2019 Proposed ECR Factors and Estimated Annual Bill Increase (Decrease) from Current Rates						
Program	Class	2018 ECR Factor	Proposed ECR Factor	Difference	Est. Average 2019 Usage	Estimated Bill Impact
Electric	Residential	\$ 0.00015	\$ 0.00086	\$ 0.00071	13,904	\$ 9.87
	Nonresidential	\$ 0.00004	\$ 0.00006	\$ 0.00002	192,303	\$ 3.85
Gas	Residential	\$ (0.01161)	\$ 0.00825	\$ 0.01986	760	\$ 15.00
	Nonresidential	\$ 0.00207	\$ 0.00116	\$ (0.00091)	5,499	\$ (5.00)

STAFF RECOMMENDATION

Given the program currently fails to pass the TRC test, it is difficult for Staff to support continuation of the Gas Residential Furnace measure unless MidAmerican can show that this measure will again become cost effective on a TRC basis. Given how large of a piece the Gas Furnace measure is to the program, MidAmerican might not have the critical mass to support continuing to offer other programs given the administrative costs of providing energy efficiency programs.

Staff would request MidAmerican provide a supplement to this filing in or around September 2019 which outlines the expected plans TRC results moving forward utilizing the new Iowa TRM. Should the new supplement show the current plan to be cost effective, MidAmerican should be allowed to continue offering the program as it has been. Should the new supplement show MidAmerican's program is unable to obtain a TRC greater than one moving forward, MidAmerican should be instructed to eliminate the residential gas furnace program at the end of 2019 and file a revised plan to be effective on January 1, 2020.

Staff makes the following recommendations to the Commission:

- 1) That the Commission approve the 2018 reconciliation amounts;
- 2) That the Commission approve the 2018 fixed percentage incentive and
- 3) That the Commission approves the gas and electric Energy Efficiency Cost Recovery Factors and tariff sheets filed on April 12, 2019, with an effective date of May 31, 2019.
- 4) That the Commission require MidAmerican to provide a supplemental filing as described above.