

TO: COMMISSIONERS AND ADVISORS
FROM: DARREN KEARNEY AND KRISTEN EDWARDS
SUBJECT: STAFF RECOMMENDATION FOR DOCKET GE16-001
DATE: MARCH 28, 2016

STAFF MEMORANDUM

OVERVIEW

Since 2009, MidAmerican Energy Company (MEC) offered energy efficiency programs to both electric and natural gas customers located within their service territory. In this docket, MEC submitted its 2015 annual report, 2015 reconciliation of expenses and revenues, and proposed 2016 Energy Efficiency Cost Recovery (ECR) rates for Commission review and approval. It should be noted that the 2016 Energy Efficiency Plan budgets were approved by the Commission in docket GE15-004.

This memo provides a brief summary of MEC's 2015 plan performance and Staff's recommendation.

2015 ENERGY EFFICIENCY PLAN RESULTS

In 2015, MEC came in under budget for both gas and electric programs. Actual spending and energy savings are provided in further detail below.

Electric Program Budgeted vs. Actuals

Results from MEC's 2015 electric programs are provided in Table 1. Looking at energy savings, MEC experienced slightly more energy savings than forecasted. Rolling up all electric programs, energy savings were 598,093 kWh in 2015, or 5% more than the energy savings goal for the year. The large majority of energy savings came from the Nonresidential Equipment program, where one project consisting of two 125 horsepower variable speed drives accounted for 65.8% of total electric program energy savings. That project produced 393,776 kWh in energy savings.

From a spending perspective, MEC came in 19% below the budget in 2015 for all electric programs. Electric program spending was 27% below the budget for residential programs and 3% over the budget for nonresidential programs.

Program	Energy Savings (kWh)			Expenditures		
	Budgeted	Actual	Variance	Budgeted	Actual	Variance
Residential Equipment	233,210	170,555	-27%	\$ 82,185	\$ 58,396	-29%
Residential Audit	3,424	4,678	37%	\$ 1,997	\$ 3,833	92%
Residential Load Management	967	0	-100%	\$ 15,979	\$ 14,144	-11%
Appliance Recycling	29,070	7,563	-74%	\$ 6,461	\$ 1,237	-81%
Total Residential	266,671	182,796	-31%	\$ 106,622	\$ 77,610	-27%
Nonresidential Equipment ¹	242,542	403,835	67%	\$ 19,557	\$ 30,145	54%
Nonresidential Custom	59,210	10,411	-82%	\$ 16,883	\$ 8,063	-52%
Small Commercial Energy Audit	1,587	1,051	-34%	\$ 2,143	\$ 1,706	-20%
Total Nonresidential	303,339	415,297	37%	\$ 38,583	\$ 39,914	3%
Total All Electric Programs	570,010	598,093	5%	\$ 145,205	\$ 117,524	-19%

1) One project consisting of two variable speed drives generated 393,776 kWhs of energy savings

Gas Program Budgeted vs. Actuals

Results from MEC's 2015 gas programs are provided in Table 2. Focusing on energy savings, the residential gas programs had 62% fewer energy savings than the goal and nonresidential gas programs had 47% fewer energy savings than the goal. Total energy savings for all programs in 2015 was 236,571 therms, or 59% fewer energy savings than the overall goal for the year.

Looking at spending, MEC came in under budget for both residential and nonresidential gas programs in 2015. Residential program spending was 45% below the budget and nonresidential program spending was 23% below the budget. In 2015, a total of \$732,915 was spent out of the approved \$1,243,447 budget.

Program	Energy Savings (therms)			Expenditures		
	Budgeted	Actual	Variance	Budgeted	Actual	Variance
Residential Equipment	403,709	142,687	-65%	\$ 722,077	\$ 333,242	-54%
Residential Audit	38,904	25,718	-34%	\$ 302,151	\$ 229,780	-24%
Total Residential	442,613	168,405	-62%	\$1,024,228	\$ 563,022	-45%
Nonresidential Equipment	105,195	50,710	-52%	\$ 143,915	\$ 117,058	-19%
Nonresidential Custom	13,774	17,082	24%	\$ 31,236	\$ 37,810	21%
Small Commercial Energy Audit	10,308	374	-96%	\$ 44,068	\$ 15,025	-66%
Total Nonresidential	129,277	68,166	-47%	\$ 219,219	\$ 169,893	-23%
Total All Gas Programs	571,890	236,571	-59%	\$1,243,447	\$ 732,915	-41%

MidAmerican identified that participation in both residential and nonresidential furnace rebate programs was weak during year and this resulted in the lower than expected energy savings and spending for the gas programs. The company received feedback from customers and contractors indicating that the change in residential furnace rebate amounts in 2015 made it less economically attractive for customers to move to the higher energy-efficient equipment. Staff notes that historical data indicates the change in furnace rebates may have adversely impacted participation in high-efficiency furnace

programs; however, it is difficult to make this determination with only one year of data. Table 3, below, provides historical furnace participation levels from 2010 through 2015.

	2010	2011	2012	2013	2014	2010-2014 Average	2015
Residential Furnaces	1631	1418	994	1541	2251	1567	824
Nonresidential Furnaces	40	36	56	105	144	76.2	75
Total	1671	1454	1050	1646	2395	1643	899

Benefit/Cost Analysis of Electric Programs

Table 4 shows the 2015 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 or not the program is cost effective. Overall, MEC’s energy efficiency programs were demonstrated to be cost effective. It should be noted that the residential audit TRC test was below 1.0, however this is not atypical for energy audit programs.

Program	TRC	PART	RIM	UTILITY	SOCIETAL
Residential Equipment	1.48	1.6	0.9	3	1.41
Residential Audit	1.14	1.76	0.54	1.15	1.09
Residential Appliance Recycling	1.94	4.43	0.73	2.46	2.3
Nonresidential Equipment	23.35	10.31	3.28	41.25	32.82
Nonresidential Custom	1.03	2.54	0.63	1.35	1.57
Small Commercial Energy Audit	0.76	1.46	0.51	0.72	0.79
Total Electric Energy	6.02	2.97	2.37	13.91	7.97
Residential Load Management	-	1	-	-	-

Benefit/Cost Analysis of Gas Programs

Table 5 shows the 2015 benefit/cost test results for the gas programs. Again, the total resource cost (TRC) test is highlighted in the table. The only program that didn’t have TRC result greater than 1.0 was the small commercial audit program.

Program	TRC	PAR	RIM	UTILITY	SOCIETAL
Residential Equipment	1.15	1.47	0.78	4.23	1.6
Residential Audit	1.19	2.3	0.5	1.04	1.16
Nonresidential Equipment	1.92	2.43	0.82	4.31	2.66
Nonresidential Custom	1.12	1.16	0.97	5.38	1.65
Small Commercial Energy Audit	0.63	2.17	0.12	0.14	0.18
Total Gas	1.26	1.67	0.76	3.22	1.67

2016 ENERGY EFFICIENCY COST RECOVERY FACTORS

Staff reviewed MEC’s calculations for the 2016 ECR factors and found the factors to be properly calculated after minor adjustments.¹ Further, MEC used the proper performance incentive amounts in the ECR factor calculations after removing 2014 furnace rebates that were issued in 2015 from the calculation. Table 6, below, provides the proposed 2016 ECR factors and the estimated annual bill impact for a typical customer’s utility bill from the current ECR rates.

Program	Class	2015 ECR Factor	Proposed ECR Factor	Difference	Average 2016 Usage ¹	Estimated Bill Impact
Electric	Residential	\$ 0.00120	\$ 0.00167	\$ 0.00047	13,021	\$ 6.12
	Nonresidential	\$ 0.00009	\$ 0.00026	\$ 0.00017	185,602	\$ 31.55
Gas	Residential	\$ 0.04151	\$ (0.01321)	\$ (0.05472)	642	\$ (35.13)
	Nonresidential	\$ (0.00741)	\$ 0.01113	\$ 0.01854	4,494	\$ 83.32

1) Average 2016 Usage was calculated based on January-December 2015 actual sales and customers

STAFF RECOMMENDATION

Staff makes the following recommends to the Commission:

- 1) That the Commission approve the 2015 reconciliation amounts;
- 2) That the Commission approve the 2015 performance incentive;
- 3) That the Commission approves the electric Energy Efficiency Cost Recovery Factors and tariff sheet filed on February 19, 2016, with an effective date of April 4, 2016; and
- 4) That the Commission approves the natural gas Energy Efficiency Cost Recovery Factors and tariff sheet filed on March 11, 2016, with an effective date of April 4, 2016.

¹ See MEC’s response to Staff Data Requests 1-2, 1-3, and 1-4