

TO: COMMISSIONERS AND ADVISORS
FROM: DARREN KEARNEY
SUBJECT: OVERVIEW OF DOCKET GE14-001
DATE: APRIL 10, 2014

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. On November 27th, 2012 the Commission approved a new, and improved, 5-year Energy Efficiency Plan¹ submitted by MEC. In this year's docket, GE14-001, MEC has filed with the commission in order to receive approval of the prior year's performance results and reconciliation of actual expenses incurred. Further, MEC seeks approval of the 2014 energy efficiency plan budget that includes the following:

1. the ability to continue offering rebates for high efficiency natural gas furnaces and ground source heat pumps (GSHPs) in the residential equipment programs;
2. a proposed budget increase to the electric residential equipment program of \$32,000 (for GSHPs);
3. a proposed increase to the electrical nonresidential equipment program of \$5,340 (for lighting);
4. a proposed increase to the gas residential electric program of \$780,000 (to continue incentivizing furnaces); and
5. a proposed increase to the gas nonresidential equipment program of \$241,767 (to increase furnace budget).

The purpose of this memo is to provide an overview of the major points within MEC's filing in order to assist the commission during its review of the filing. At the time of writing this memo, Staff was awaiting responses to a second data request that includes updated rates and tariff sheets. Once Staff receives and reviews those responses, Staff

¹ See Docket GE12-005, "In the Matter of the Filing by MidAmerican Energy Company for the Approval of Energy Efficiency Plan for 2013-2017."

will make a recommendation to the commission either through a follow-up memorandum or verbally during the commission meeting.

2013 ENERGY EFFICIENCY PLAN RESULTS

Electric Program Budgeted vs. Actuals

Results from MEC's 2013 electric programs are provided in Table 1. Looking at energy savings, MEC exceeded the planned energy savings for both the residential and non-residential programs, with 9% more energy savings and 98% more energy savings than planned (respectively). Rolling up all electric programs, energy savings were 693,156 kWh in 2013, or 61% above the planned energy savings. Driving the energy savings were 593 lighting measures completed within the nonresidential equipment program.

From a spending perspective, MEC came in 4% under budget in 2013 for all electric programs. However, it should be noted that spending was 47% over budget for nonresidential programs and 22% under budget for residential programs. MEC did suspend the nonresidential electric programs in August once funds were exhausted. Actual spending levels occurring in 2013 are carried through to the appropriate Energy Efficiency Cost Recovery (ECR) factors proposed for 2014. This means that the proposed ECR factor for 2014 residential recoveries is properly adjusted for the amount underspent for residential programs in 2013 and, further, the proposed ECR factor for 2014 nonresidential recoveries is adjusted for the amount over-spent on nonresidential programs. In other words, residential electric customers will not pay for the overspending in the nonresidential electric program.

Program	Energy Savings (kWh)			Expenditures		
	Budgeted	Actual	Variance	Budgeted	Actual	Variance
Residential Equipment	153,004	182,850	20%	\$ 70,694	\$ 48,760	-31%
Residential Audit	3,424	5,674	66%	\$ 1,975	\$ 2,340	18%
Residential Load Management	720	378	-48%	\$ 13,980	\$ 18,544	33%
Appliance Recycling	21,314	4,765	-78%	\$ 5,270	\$ 1,875	-64%
Total Residential	178,462	193,667	9%	\$ 91,919	\$ 71,519	-22%
Nonresidential Equipment	192,104	485,736	153%	\$ 14,215	\$ 44,034	210%
Nonresidential Custom	59,210	13,474	-77%	\$ 16,484	\$ 2,851	-83%
Small Commercial Energy Audit	1,587	279	-82%	\$ 2,135	\$ 1,510	-29%
Total Nonresidential	252,901	499,489	98%	\$ 32,834	\$ 48,395	47%
Total All Electric Programs	431,363	693,156	61%	\$ 124,753	\$ 119,914	-4%

Gas Program Budgeted vs. Actuals

Results from MEC's 2013 gas programs are provided in Table 2. Focusing on energy savings, MEC exceeded plan savings for both the residential and nonresidential

programs. As shown in the table, residential gas programs exceeded the planned savings by 24% and nonresidential gas programs exceeded the planned savings by 28%. Overall, total energy savings for all programs in 2013 was 378,836 therms, or 25% above the planned energy savings for the year.

Looking at spending, MEC came in 14% over budget for all gas programs in 2013. Both the residential and nonresidential programs were over budget in 2013, where residential programs exceeded the approved budget by 9% and nonresidential programs exceeded the approved budget by 59%. The main contributor to the large nonresidential variance was a 245% overage in the nonresidential equipment program measures that resulted from energy efficient furnace incentives. Budget overages were carried into the appropriate customer classes when computing 2014 ECR factors for the gas programs.

Program	Energy Savings (therms)			Expenditures		
	Budgeted	Actual	Variance	Budgeted	Actual	Variance
Residential Equipment	213,698	279,248	31%	\$ 911,637	\$ 1,084,306	19%
Residential Audit	38,904	33,582	-14%	\$ 298,195	\$ 240,148	-19%
Total Residential	252,602	312,830	24%	\$1,209,832	\$ 1,324,454	9%
Nonresidential Equipment	27,547	50,509	83%	\$ 37,150	\$ 128,045	245%
Nonresidential Custom	13,774	12,748	-7%	\$ 31,636	\$ 33,618	6%
Small Commercial Energy Audit	10,308	2,749	-73%	\$ 42,846	\$ 15,378	-64%
Total Nonresidential	51,629	66,006	28%	\$ 111,632	\$ 177,041	59%
Total	304,231	378,836	25%	\$1,321,464	\$ 1,501,495	14%

Benefit/Cost Analysis of Electric Programs

Table 3 shows the 2013 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 program is shown to be cost effective. It should be noted that the residential appliance recycling and small commercial energy audit TRC tests were below 1.0.

Program	TRC	PAR	RIM	UTIL	SOC
Residential Equipment	1.66	1.64	1.04	3.99	1.62
Residential Audit	2.35	4.12	0.74	2.51	2.87
Residential Appliance Recycling	0.72	3.87	0.43	0.81	0.85
Nonresidential Equipment	3.45	3.67	1.03	7.88	4.77
Nonresidential Custom	1.47	1.65	0.91	4.5	2.27
Small Commercial Energy Audit	0.37	1.64	0.1	0.11	0.14
Total Electric Energy	2.26	2.31	1.02	5.54	2.72
Residential Load Management	1.49	-	1.04	1.04	1.65

Staff believes MEC will be able to improve the TRC for appliance recycling program due to the fact that it was a new program in 2013 and MEC expects increased participation in the program in 2014. Further, Staff is not alarmed with the small commercial energy audit TRC because energy audits tend to result in fewer energy savings as compared to other programs, and, they are a good way to promote energy efficiency measures.

Benefit/Cost Analysis of Gas Programs

Table 4 shows the 2013 benefit/cost test results for the gas programs. Again, the total resource cost (TRC) test is highlighted in the table. All programs had a TRC test that returned greater than 1.0.

Program	TRC	PAR	RIM	UTIL	SOC
Residential Equipment	1.23	1.87	0.66	2.41	1.75
Residential Audit	1.68	2.93	0.52	1.2	1.32
Nonresidential Equipment	1.57	2.07	0.76	3.7	2.21
Nonresidential Custom	1.91	2.5	0.83	3.96	2.82
Small Commercial Energy Audit	1.97	3.15	0.59	1.59	1.69
Total Gas	1.34	2.01	0.66	2.35	1.78

Question for Commission on Budget Management

MEC’s budget variances in 2013 draw to light a question the Commission should consider. That question is, should MEC be allowed to recover the dollars spent above the approved budgeted amount for a specific customer class (e.g. nonresidential electric) if the overall program for all customer classes is on budget? Staff’s opinion on this matter is that since the ECR factors are calculated according to customer class, then MEC should attempt to stay within the approved budget for that customer class.

However, Staff also believes that MEC should be allowed some budget flexibility for overages within each customer class. The commission has authorized the overspending of up to 10% of the approved budget for other utilities, with any additional spending beyond that level to be approved by the commission. Budget flexibility could be applied to each customer class included within MEC’s energy efficiency program (i.e. residential electric, nonresidential electric, residential gas, and nonresidential gas).

2014 ENERGY EFFICIENCY PLAN CHANGES AND BUDGET INCREASE

In 2013, the commission approved the inclusion of ground source heat pumps and furnaces in MEC’s energy efficiency program. MEC requests that the commission approve the continued offering of ground source heat pump and furnace rebates in 2014. In addition, MEC also requests a budget increase for the electric nonresidential equipment program and gas nonresidential equipment. For the electric nonresidential

equipment program, MEC would like to increase the budget by \$5,340 in order to adjust for an expected increase in program participants. Similarly, MEC would like to increase the gas nonresidential equipment program budget by \$241,767 in order to adjust for an expected increase in participation. Tables 5 and 6 provide an overview of the proposed budget changes.

Electric Program Budget Changes

Program	2014 Budget			2013/14 Budget Comparison			
	Approved ³	Proposed	Difference	2013 Approved	2014 Proposed	Difference	YOY Change
Residential Equipment ¹	\$ 50,189	\$ 82,189	\$ 32,000	\$ 70,694	\$ 82,189	\$ 11,495	16%
Residential Audit	\$ 2,008	\$ 2,008	\$ -	\$ 1,975	\$ 2,008	\$ 33	2%
Residential Load Management	\$ 14,929	\$ 14,929	\$ -	\$ 13,980	\$ 14,929	\$ 949	7%
Appliance Recycling	\$ 5,942	\$ 5,942	\$ -	\$ 5,270	\$ 5,942	\$ 672	13%
Total Residential	\$ 73,068	\$ 105,068	\$ 32,000	\$ 91,919	\$ 105,068	\$ 13,149	14%
Nonresidential Equipment ²	\$ 14,219	\$ 19,559	\$ 5,340	\$ 14,215	\$ 19,559	\$ 5,344	38%
Nonresidential Custom	\$ 16,881	\$ 16,881	\$ -	\$ 16,484	\$ 16,881	\$ 397	2%
Small Commercial Energy Audit	\$ 2,139	\$ 2,139	\$ -	\$ 2,135	\$ 2,139	\$ 4	0%
Total Nonresidential	\$ 33,239	\$ 38,579	\$ 5,340	\$ 32,834	\$ 38,579	\$ 5,745	17%
Total All Electric Programs	\$ 106,307	\$ 143,647	\$ 37,340	\$ 124,753	\$ 143,647	\$ 18,894	15%

1) Proposed budget includes \$32,000 for ground source heat pumps at an additional energy savings of 177,456 kWh

2) Proposed budget includes \$5,340 for lighting at an additional energy savings of 50,438 kWh

3) As approved in docket GE12-005

Staff agrees with MEC’s proposed changes to the electric programs shown in Table 5 above. The \$32,000 increase for ground source heat pumps results from 16 individuals obtaining a \$2,000 rebate. Staff believes MEC’s estimate for participants is reasonable based on historical participation levels in the program.² Further, the 2013 ground source heat pump program had a TRC test of 1.86 (with tax credits included) and shows that the program is cost effective. Turning to the nonresidential equipment program, Staff believes the additional \$5,340 will help meet demand for the lighting measures in 2014 (since MEC had to suspend the program in August of 2013). In addition, the TRC test for nonresidential lighting is 3.61, showing the program is cost effective.

However, staff does draw caution to future budget increases in the residential electric program. This stems from the size of the proposed residential electric budget relative to the amount of MEC’s residential retail electric sales in South Dakota.

Gas Program Budget Changes

² Historic GSHP participation levels: 2011 - 14 participants, 2012 - 6 participants, and 2013 - 12 participants.

Program	2014 Budget			2013/14 Budget Comparison			
	Approved ³	Proposed	Difference	Approved ³	Proposed	Difference	YOY Change
Residential Equipment ¹	\$ 47,023	\$ 827,023	\$ 780,000	\$ 911,637	\$ 827,023	\$ (84,614)	-9.3%
Residential Audit	\$ 301,909	\$ 301,909	\$ -	\$ 298,195	\$ 301,909	\$ 3,714	1.2%
Total Residential	\$ 348,932	\$ 1,128,932	\$ 780,000	\$ 1,209,832	\$ 1,128,932	\$ (80,900)	-6.7%
Nonresidential Equipment ²	\$ 37,146	\$ 278,913	\$ 241,767	\$ 37,150	\$ 278,913	\$ 241,763	650.8%
Nonresidential Custom	\$ 31,239	\$ 31,239	-	\$ 31,636	\$ 31,239	\$ (397)	-1.3%
Small Commercial Energy Audit	\$ 43,450	\$ 43,450	-	\$ 42,846	\$ 43,450	\$ 604	1.4%
Total Nonresidential	\$ 111,835	\$ 353,602	\$ 241,767	\$ 111,632	\$ 353,602	\$ 241,970	216.8%
Total All Gas Programs	\$ 460,767	\$ 1,482,534	\$ 1,021,767	\$ 1,321,464	\$ 1,482,534	\$ 161,070	12.2%

1) Proposed budget includes \$780,000 for continuing furnace rebates at an additional energy savings of 227,747 therms

2) Proposed budget includes a \$241,767 increase for furnaces at an additional energy savings of 77,648 therms

3) As approved in docket GE12-005

Staff agrees with MEC that furnaces should be included in both the residential and nonresidential equipment program. For the residential equipment program, Staff believes that the budget reduction (over last year's approved budget) is reasonable based on historical actual spending³. Further, at that spending level the residential furnace program passes the TRC test at 1.12. Turning to the non-residential equipment budget, Staff believes the increase is reasonable for this year based on the expected participation of 180 units and an average rebate of \$1,500. In addition, the program is cost effective at that funding level with a TRC test result of 1.47.

After reviewing the residential and nonresidential furnace incentive levels offered by MEC, Staff believes they may be generous when compared to furnace incentives offered by other companies. It should be noted, however, that staff did not conduct a rigorous study in order to support such a claim. Given this, Staff believes MEC's rebate levels should be approved as proposed in this filing. However, staff believes MEC should provide a more detailed study on the appropriate furnace incentive level with their next EE plan filing.

³ 2010 - \$652,045; 2011 - \$559,526; 2012 - \$417,453; and 2013 - \$1,084,307