



**El Paso Electric**

**ANNUAL REPORT FOR ENERGY EFFICIENCY PROGRAMS  
CALENDAR YEAR 2016**

**NMPRC EFFICIENT USE OF ENERGY RULE 17.7.2 NMAC**

**JUNE 30, 2017**

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## Section I. Executive Summary

### **Introduction**

El Paso Electric Company (“EPE”) submits its annual report on the performance of EPE’s Energy Efficiency Programs for calendar year 2016 (“2016 Programs”). This Annual Report for Energy Efficiency Programs (“Annual Report”) covers the program period from January 1, 2016 through December 31, 2016, and relies on the statewide independent evaluator’s report, *Evaluation of El Paso Electric Company 2016 DSM Portfolio* (“M&V Report”) prepared by ADM Associates, Inc. (“ADM”). The M&V Report is included as Attachment A. The programs evaluated in this Annual Report were approved by the New Mexico Public Regulation Commission (“NMPRC” or “Commission”) in NMPRC Case No. 13-00176-UT on December 18, 2013.

### **Summary of Results**

This is the ninth annual report on EPE’s energy efficiency programs. Results are based upon independent measurement and verification (“M&V”) by ADM. The following 2016 Programs are included in this Annual Report<sup>1</sup>:

- LivingWise<sup>®</sup> Program
- Residential Home Efficiency Program
- Residential High Efficiency Cooling Program
- Residential CFL and LED Program
- ENERGY STAR<sup>®</sup> New Homes Program
- New Mexico EnergySaver Program
- Small Commercial Comprehensive Program
- School and Business Assistance (“SCORE Plus”) Program

The following is a short summary of the overall results:

- The 2016 Programs were cost effective as measured by the Utility Cost Test (“UCT”). The UCT for the portfolio of programs was 2.81.<sup>2</sup>
- The total annual net energy savings was 18,213,422 kWh at the customer meter.
- The total 2016 Program expenditures were \$5,497,809.04.

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<sup>1</sup> EPE had contracted with JACO Environmental to implement the Appliance Recycling Program; however, JACO was placed into receivership in November 2015. In April 2016, EPE was granted approval to terminate the Appliance Recycling Program by the NMPRC.

<sup>2</sup> UCTs are based on NMPRC Case No. 13-00176-UT avoided costs. A UCT of greater than one indicates the cost effectiveness of the energy efficiency portfolio or program.

Table 1 shows the total number of participants or units, the verified annual demand and energy savings, the lifetime energy savings, and the total expenses for the 2016 Programs.

Program	Participants or Units	Annual Savings (kW)	Annual Savings (kWh)	Lifetime Savings (kWh)	Total Program Expenses
<b>Educational</b>					
LivingWise Program	3,022	12.93	678,233	5,869,066	\$ 156,356.06
<b>Residential</b>					
Home Efficiency Program	47	15.93	30,022	535,515	\$ 9,638.01
High Efficiency Cooling Program	1,573	1,447.72	2,336,053	35,040,797	\$ 1,054,985.03
CFL & LED Program*	37,466	370.31	2,782,418	22,802,785	\$ 465,070.03
ENERGY STAR New Homes Program	268	148.78	286,746	6,595,156	\$ 285,031.72
<b>Low Income</b>					
New Mexico EnergySaver Program	1,646	209.38	948,818	8,596,208	\$ 762,345.63
<b>Commercial</b>					
Small Commercial Comprehensive Program	124	237.90	1,074,432	15,526,813	\$ 356,921.46
SCORE Plus Program	133	3,453.67	10,076,700	150,534,944	\$ 2,233,023.69
<b>Marketing for All Programs</b>					\$ 109,957.63
<b>Awareness Building Campaign</b>					\$ 64,479.78
<b>TOTAL</b>	<b>44,279</b>	<b>5,896.62</b>	<b>18,213,422</b>	<b>245,501,284</b>	<b>\$ 5,497,809.04</b>

Table 2 presents the net present value (“NPV”) of the 2016 Programs’ benefit-cost analysis and the program and portfolio UCT ratios. In accordance with the New Mexico Efficient Use of Energy Act NMSA 1978 Section 62-17-5, EPE’s portfolio of programs meets the UCT cost-effectiveness standard.

Program	NPV of Benefits	NPV of Expenses	UCT
<b>Educational</b>			
LivingWise Program	170,149.13	156,356.06	1.09
<b>Residential</b>			
Home Efficiency Program	41,938.93	9,638.01	4.35
High Efficiency Cooling Program	3,238,254.31	1,054,985.03	3.07
CFL & LED Program	996,062.58	465,070.03	2.14
ENERGY STAR New Homes Program	425,224.83	285,031.72	1.49
<b>Low Income</b>			
New Mexico EnergySaver Program	555,373.22	762,345.63	0.73
<b>Commercial</b>			
Small Commercial Comprehensive Program	754,557.74	356,921.46	2.11
SCORE Plus Program	9,283,740.07	2,233,023.69	4.16
<b>Marketing for All Programs</b>			0.00
<b>Awareness Building Campaign</b>			0.00
<b>TOTAL</b>	<b>15,465,300.80</b>	<b>5,497,809.04</b>	<b>2.81</b>

## 2016 Cumulative Program Goals

Table 3 provides the annual and cumulative energy savings achieved from 2008 through 2016. The Efficient Use of Energy Act requires that EPE achieve cumulative savings of 65,815,596 kWh by 2014, which is equal to five percent (5%) of EPE's retail sales in 2005, and 105,304,953 kWh by 2020, which is equal to eight percent (8%) of 2005 retail sales. By the end of 2016, EPE achieved a cumulative total of 105,572,068 kWh. This accounts for just over 100% of the 2020 statutory goal.

<b>Year</b>	<b>Annual kWh Savings</b>	<b>Annual Expired Portfolio kWh</b>	<b>Cumulative kWh Savings</b>
2008	855,912		855,912
2009	4,667,928		5,523,840
2010	5,169,908		10,693,748
2011	14,728,590		25,422,338
2012	13,537,655		38,959,993
2013	12,832,995		51,792,988
2014	20,692,228		72,485,216
2015	15,729,342		88,214,558
2008 Exp.		(855,912)	87,358,646
2016	18,213,422		105,572,068

## Section II. Program Descriptions

### ***Educational Program***

#### LivingWise® Program

The LivingWise® Program is an educational program that targets fifth grade students. Participating teachers are provided with educational materials that are presented in the classroom. Students receive a kit of energy and water efficient devices for installation at home to generate immediate and long-term resource savings. EPE contracted with Resource Action Programs to implement and manage this program. The LivingWise team identifies and enrolls teachers and their students within EPE's New Mexico service territory. The LivingWise program was a contributing catalyst for the national recognition of a Desert Trail Elementary School teacher who was recognized as 2016 Teacher of the Year by The National Association for Bilingual Education. EPE distributed 3,022 kits during the 2016 fall semester and achieved a savings of 678,233 kWh.

### ***Residential Programs***

#### Residential Home Efficiency Program

The Residential Home Efficiency Program offers residential customers rebates on the following measures:

- Ceiling and Floor Insulation
- Duct Sealing
- Air Infiltration
- Solar Screens

Frontier Associates administered the rebate process. EPE promoted this program through various outreach methods including radio and newspaper ads, bill inserts, and targeted outreach to contractors that install these measures. EPE further expanded its reach by targeting interactive mediums with high viewership including email blasts, Google search words, and targeted newspaper advertising in Las Cruces and Hatch. EPE had 47 participants and saved a total of 30,022 kWh.

#### Residential High Efficiency Cooling Program

The Residential High Efficiency Cooling Program offers residential customers rebates on the purchase and installation of eligible, energy efficient evaporative coolers and refrigerated air conditioners. Frontier Associates administered the rebate process. Rebates of \$300 or \$700, depending upon the efficiency of the unit, are provided to customers that install energy efficient evaporative coolers as an alternative to refrigerated air conditioners. Residential customers that purchase energy efficient refrigerated air conditioners can also receive rebates of \$250 to \$700, depending upon the efficiency of the unit. EPE promoted this program through various outreach methods including point-of-purchase materials at stores, radio and newspaper ads, and social media. EPE expanded its marketing by utilizing publications that target the highest circulation in the region. In 2016, a total of 1,573 rebates were distributed with an annual savings of 2,336,053 kWh.

## Residential CFL & LED Program

The Residential CFL & LED Program offers residential customers CFLs and LEDs at a reduced price through a buy-down process at participating retail locations. EPE contracted with Energy Federation Incorporated and CLEAResult Consulting (“CLEAResult”) to provide the outreach and administration for this program. During 2016, there were a total of 18 participating retail locations where EPE offered this program. Program field representatives completed 446 store visits and provided training sessions to store associates and customers. In addition, twenty-six community outreach events were organized throughout the year at retail stores. EPE also organized LED bulb give-away events at each of the four grade schools in Chaparral, NM, a town that is not in close proximity to a participating retail location. As part of the ENERGY STAR® Change a Light, Change the World Campaign, EPE provided an LED bulb exchange where customers brought in 4 incandescent bulbs to exchange for 4 LED bulbs. EPE promoted this program through several outreach methods including radio and newspaper ads, social media, and point of purchase displays at stores. There were 187,331 bulbs sold at the reduced prices – 93,223 CFLs and 94,108 LEDs, saving a total of 2,782,418 kWh. In 2016, LEDs comprised more than half of the total sales.

## ENERGY STAR® New Homes Program

The ENERGY STAR New Homes Program offers incentives to builders for construction of new homes that exceed current building code standards. EPE contracted with ICF International to implement and manage this program. Based on ADM’s recommendations, EPE offered two incentive paths for this program: the Performance Path and the Prescriptive Path. Under the Performance Path, homebuilders can receive incentives for constructing new, single-family homes that exceed current New Mexico code requirements by a minimum of 10%. Each home must also be rated by an independent Home Energy Rating System (“HERS”) rater. This path provides tiered incentives of \$0.30/kWh up to \$2,000 maximum per home. Under the Prescriptive Path, builders receive incentives to install a minimum of two above-code measures in their newly built homes: CFL or LED lighting, radiant barrier, insulation, HVAC, or refrigerator replacement. Incentives are paid on a per measure basis, and incentive rates differ based upon the measure type. EPE promoted this program through informational training sessions for builders and real estate agents in the area. EPE provided yard signs for homes that participated in the Performance Path, advertising that they were more energy efficient than other homes in the area. EPE also targeted its marketing efforts through trade magazines and the Las Cruces Home Builders Association. In 2016, 268 homes participated in this program and a total annual savings of 286,746 kWh was achieved.

## ***Low Income Program***

### New Mexico EnergySaver Program

The New Mexico EnergySaver Program offers income-qualified customers a variety of energy efficiency measures at no cost. Frontier Associates administered and tracked the results of this program and EnergyWorks identified customers and implemented the direct installs. For homes with refrigerated air, the measures installed included CFLs or LEDs, insulation, air infiltration, duct sealing and low-flow showerheads. For homes with evaporative cooling, CFLs or LEDs were installed. EnergyWorks collaborated with a

variety of community organizations including neighborhood associations, church groups, and low-income service providers to identify and qualify customers for energy efficiency services. EnergyWorks also promoted this program through extensive outreach utilizing customer referrals, door-to-door marketing and the EPE Energy Efficiency Hotline. This program had 1,646 participants and had an annual savings of 948,818 kWh.

## ***Commercial Programs***

### **Small Commercial Comprehensive Program**

The Small Commercial Comprehensive Program provides energy efficiency rebates for small commercial customers whose average annual demand is less than or equal to 100 kW. The commercial rebates are offered for lighting and HVAC upgrades and controls, HVAC tune-ups, cool roofs, vending energy misers, and solar screen/film window treatments. EPE contracted with Frontier Associates to administer the rebate process and track the results of the program. Frontier field personnel contacted small commercial customers to notify them of the various energy efficiency incentives. Walk-through audits were performed at no cost to 404 customers where possible energy efficiency measures were identified. EPE contacted 26 electrical contractors, 21 HVAC contractors, and an additional 7 HVAC distributors to further promote this program. EPE promoted the Small Commercial Comprehensive Program through direct customer contact, bill inserts and social media advertising. A two-day High Performance HVAC Tune-Up training seminar was provided for interested HVAC contractors. The Small Commercial Comprehensive Program had 124 participants and saved a total of 1,074,432 kWh.

### **SCORE Plus Program**

The SCORE Plus Program offers customer incentives, technical support, and outreach services to commercial customers with an average demand of greater than 100 kW, as well as schools, city and county customers. This program offers incentives for a range of energy efficiency measures including lighting, HVAC upgrades, lighting and HVAC controls, and custom projects. EPE contracted with CLEAResult to actively recruit eligible customers and provide assistance to identify energy efficiency improvements that could be made to their facilities. CLEAResult also assisted customers in the program application process. EPE promoted this program through direct customer and contractor contact, and bill inserts. As with the Small Commercial Comprehensive Program, a two-day High Performance HVAC Tune-Up training seminar was provided for those HVAC contractors wanting to participate. In 2016, a total of 133 participants saved 10,076,700 kWh through various energy efficiency measures.

## ***Awareness Building Campaign***

### **Awareness Building & Trade Ally Campaign**

During 2016, EPE continued the Awareness Building & Trade Ally Campaign (“Awareness Building Campaign”) to successfully educate customers and contractors about the benefits of EPE’s NM energy efficiency programs. EPE contracted with Frontier Associates whose field personnel went door-to-door to meet with both customers and contractors. The field personnel instructed them on how to access the EPE website which provides the necessary information and forms to participate in our energy efficiency programs. They also distributed program materials that identified how customers could participate in EPE’s



energy efficiency programs and how they could contact EPE employees directly via a telephone hotline. EPE maintained an energy efficiency hotline number in NM that allowed customers and contractors to contact the Energy Efficiency Department to have their questions answered by knowledgeable program coordinators. EPE participated in various community events and provided presentations on energy efficiency and energy conservation. Outreach also included bill insert newsletters and radio advertising. EPE provided contractors with best practices training during the program kickoff meetings and offered commercial HVAC training throughout the year. This Awareness Building Campaign was instrumental in providing the one-on-one contact necessary to educate customers and contractors about the EPE Programs.

## Section III. Energy Efficiency Rule Reporting Requirements

Section III of the Annual Report provides program information to comply with the Efficient Use of Energy Act as required by the NMPRC Energy Efficiency Rule, Section 17.7.2.14 NMAC.

### Documentation of Program Expenditures

Table 4 shows the 2016 expenses by program and category. The Commission approved the 2016 Program budget in Case No. 13-00176-UT. All 2016 Program expenses were tracked through a specific account number and a unique work order number. Likewise, all revenue collected through the EUERF was booked to the same account using a separate work order number. The expenses and revenue were balanced against each other. To ensure there was no cross-subsidization or impact on EPE's rate of return, these energy efficiency expenses and revenues were kept separate from EPE rate-base accounting. EPE spent \$5,497,809.04 of the \$5,751,436 approved budget, which is 95.6% of the budget.

**Table 4: 2016 Program Expenditures**

Programs	2016 Budget	Customer Incentives	Administrative	Marketing	M&V	Total Expenses
<b>Educational</b>						
LivingWise Program	\$ 165,000.00	\$ 150,918.68	5,437.38	-	-	\$ 156,356.06
<b>Residential</b>						
Home Efficiency Program	\$ 172,000.00	\$ 9,042.75	595.26	-	-	\$ 9,638.01
High Efficiency Cooling Program	\$ 938,343.00	\$ 988,214.02	64,688.51	\$ 2,082.50	-	\$ 1,054,985.03
CFL & LED Program	\$ 663,825.00	\$ 307,031.53	151,329.51	\$ 2,808.99	\$ 3,900.00	\$ 465,070.03
ENERGY STAR New Homes Program	\$ 315,000.00	\$ 147,231.91	123,176.94	\$ 87.89	\$ 14,534.98	\$ 285,031.72
<b>Low Income</b>						
New Mexico EnergySaver Program	\$ 569,226.00	\$ 647,717.16	114,223.47	-	\$ 405.00	\$ 762,345.63
<b>Commercial</b>						
Small Commercial Comprehensive Program	\$ 1,273,939.00	\$ 279,990.23	24,543.51	\$ 298.60	\$ 52,089.12	\$ 356,921.46
SCORE Plus Program	\$ 1,483,952.00	\$ 1,296,943.39	881,642.29	\$ -	\$ 54,438.01	\$ 2,233,023.69
<b>Marketing for All Programs</b>	\$ 110,151.00	-		\$ 109,957.63	-	\$ 109,957.63
<b>Awareness Building Campaign</b>	\$ 60,000.00	-		\$ 64,479.78	-	\$ 64,479.78
<b>TOTAL</b>	<b>\$ 5,751,436.00</b>	<b>\$ 3,827,089.67</b>	<b>1,365,636.87</b>	<b>\$ 179,715.39</b>	<b>\$ 125,367.11</b>	<b>\$ 5,497,809.04</b>

Table 5 shows the breakdown of participant incentives by rate class, as required in the Final Order of Case No. 13-00176-UT.

**Table 5 - Participant Incentives by Rate Class**

Program	Residential NMRT01	Small Commercial NMRT03	General Service NMRT04	City and County NMRT07	State University NMRT26	Interruptible NMRT29	Total Participant Incentives
<b>Educational</b>							
LivingWise Program	\$ 150,918.68	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,918.68
<b>Residential</b>							
Home Efficiency Program	\$ 9,042.75	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,042.75
High Efficiency Cooling Program	\$ 988,214.02	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 988,214.02
CFL & LED Program	\$ 307,031.53	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 307,031.53
ENERGY STAR New Homes Program	\$ 147,231.91	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 147,231.91
<b>Low Income</b>							
New Mexico EnergySaver Program	\$ 647,717.16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 647,717.16
<b>Commercial</b>							
Small Commercial Comprehensive Program	\$ -	\$ 185,652.86	\$ 94,337.37			\$ -	\$ 279,990.23
SCORE Plus Program	\$ -	\$ 113,881.85	\$ 152,634.71	\$ 114,126.85	\$ 891,750.00	\$ 24,549.98	\$ 1,296,943.39
<b>TOTAL</b>	<b>\$ 2,250,156.05</b>	<b>\$ 299,534.71</b>	<b>\$ 246,972.08</b>	<b>\$ 114,126.85</b>	<b>\$ 891,750.00</b>	<b>\$ 24,549.98</b>	<b>\$ 3,827,089.67</b>

Table 6 shows the budgeted amounts, the actual expenditures, and the variances for each program during 2016. The variances in individual program costs from the budgeted amounts were primarily due to customer participation being lower or higher than projected.

Program	2016 Budget	2016 Program Expenses	Variance %
<b>Educational</b>			
LivingWise Program	\$ 165,000.00	\$ 156,356.06	-5.24%
<b>Residential</b>			
Home Efficiency Program	\$ 172,000.00	\$ 9,638.01	-94.40%
High Efficiency Cooling Program	\$ 938,343.00	\$ 1,054,985.03	12.43%
CFL & LED Program	\$ 663,825.00	\$ 465,070.03	-29.94%
ENERGY STAR New Homes Program	\$ 315,000.00	\$ 285,031.72	-9.51%
<b>Low Income</b>			
New Mexico EnergySaver Program	\$ 569,226.00	\$ 762,345.63	33.93%
<b>Commercial</b>			
Small Commercial Comprehensive Program	\$ 1,273,939.00	\$ 356,921.46	-71.98%
SCORE Plus Program	\$ 1,483,952.00	\$ 2,233,023.69	50.48%
<b>Marketing for All Programs</b>	\$ 110,151.00	\$ 109,957.63	-0.18%
<b>Awareness Building Campaign</b>	\$ 60,000.00	\$ 64,479.78	7.47%
<b>TOTAL</b>	<b>\$ 5,751,436.00</b>	<b>\$ 5,497,809.04</b>	<b>-4.41%</b>

### Estimated and Actual Customer Participation and Savings Levels

Table 7 presents the estimated and actual customer participation levels, annual energy savings and annual peak demand savings for each program.

Program	Estimated Participants or Units	Actual Participants or Units	Estimated Savings (kWh)	Actual Savings (kWh)	Estimated Savings (kW)	Actual Savings (kW)
<b>Educational</b>						
LivingWise Program	3,500	3,022	740,698	678,233	39	12.9
<b>Residential</b>						
Home Efficiency Program	343	47	327,180	30,022	211	15.9
High Efficiency Cooling Program	1,707	1,573	1,395,630	2,336,053	909	1,447.7
CFL & LED Program*	43,034	37,466	3,519,679	2,782,418	360	370.3
ENERGY STAR New Homes Program	250	268	309,048	286,746	128	148.8
<b>Low Income</b>						
New Mexico EnergySaver Program	1,206	1,646	1,112,378	948,818	134	209.4
<b>Commercial</b>						
Small Commercial Comprehensive Program	720	124	4,241,809	1,074,432	932	237.9
SCORE Plus Program	75	133	5,457,658	10,076,700	1,502	3,453.7
<b>TOTAL</b>	<b>50,835</b>	<b>44,279</b>	<b>17,104,080</b>	<b>18,213,422</b>	<b>4,215</b>	<b>5,896.6</b>

\*CFL & LED Program assumes 5 bulbs per participant

## Estimated and Actual Costs (Expenses) and Avoided Costs (Benefits)

Table 8 presents the net present value of estimated and actual monetary expenses and benefits for each program. The estimated expenses and benefits were included in Case No. 13-00176-UT.

<b>Table 8 - Estimated and Actual Costs (Expenses) and Avoided Costs (Benefits)</b>				
	<b>Estimated NPV of Monetary Expenses</b>	<b>Actual NPV of Monetary Expenses</b>	<b>Estimated NPV of Monetary Benefits</b>	<b>Actual NPV of Monetary Benefits</b>
<b>Educational</b>				
LivingWise Program	\$ 165,000	\$ 156,356	\$ 209,791	\$ 170,149
<b>Residential</b>				
Home Efficiency Program	\$ 172,000	\$ 9,638	\$ 719,671	\$ 41,939
High Efficiency Cooling Program	\$ 938,343	\$ 1,054,985	\$ 2,173,027	\$ 3,238,254
CFL & LED Program	\$ 663,825	\$ 465,070	\$ 946,127	\$ 996,063
ENERGY STAR New Homes Program	\$ 315,000	\$ 285,032	\$ 486,304	\$ 425,225
<b>Low Income</b>				
New Mexico EnergySaver Program	\$ 569,226	\$ 762,346	\$ 667,483	\$ 555,373
<b>Commercial</b>				
Small Commercial Comprehensive Program	\$ 1,273,939	\$ 356,921	\$ 3,951,972	\$ 754,558
SCORE Plus Program	\$ 1,483,952	\$ 2,233,024	\$ 3,066,983	\$ 9,283,740
<b>Marketing for All Programs</b>				
Awareness Building Campaign	\$ 110,151	\$ 109,958	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 5,751,436</b>	<b>\$ 5,497,809</b>	<b>\$ 12,221,358</b>	<b>\$ 15,465,301</b>

## Cost Effectiveness Evaluation

Table 9 presents the UCT for each program, as well as the total portfolio UCT. EPE's total portfolio and all of the 2016 programs met the UCT standard except for the NM EnergySaver Program which is EPE's low-income residential program. See Table 2 for more details on the UCT calculations.

<b>Table 9 - Cost Effectiveness by Program</b>	
<b>Program</b>	<b>UCT</b>
<b>Educational</b>	
LivingWise Program	1.09
<b>Residential</b>	
Home Efficiency Program	4.35
High Efficiency Cooling Program	3.07
CFL & LED Program	2.14
ENERGY STAR New Homes Program	1.49
<b>Low Income</b>	
New Mexico EnergySaver Program	0.73
<b>Commercial</b>	
Small Commercial Comprehensive Program	2.11
SCORE Plus Program	4.16
<b>TOTAL</b>	<b>2.81</b>

## Self-Directed Programs

El Paso Electric did not receive any applications for customer self-directed programs in 2016.

## Independent Measurement and Verification Report

The statewide independent evaluator, ADM, was chosen by the NMPRC and EPE contracted with ADM to conduct the independent evaluation of its 2016 energy efficiency programs. The M&V Report is included as Attachment A of this report and includes:

- Documentation of expenses at both the individual and total portfolio program levels
- Measured and verified energy and demand savings
- Cost-effectiveness of all of EPE's 2016 Programs
- Deemed savings and other assumptions used by ADM
- Description of the M&V process used by ADM

## Program Expenditures Not Covered in the Independent M&V Report

All program-related expenditures are included in the M&V Report. EPE spent a total of \$5,497,809.04 for the 2016 Programs.

## Annual Economic Benefits by Program

Table 10 presents the annual and lifetime energy savings, estimated useful life, and annual economic benefits for the 2016 Programs.

<b>Program</b>	<b>Annual Energy Savings (kWh)</b>	<b>Lifetime Energy Savings (kWh)</b>	<b>Estimated Useful Life</b>	<b>Annual Benefits</b>
<b>Educational</b>				
LivingWise Program	678,233	5,869,066	8.65	19,662.54
<b>Residential</b>				
Home Efficiency Program	30,022	535,515	17.84	2,351.18
High Efficiency Cooling Program	2,336,053	35,040,797	15.00	215,883.61
CFL & LED Program	2,782,418	22,802,785	8.20	121,540.52
ENERGY STAR New Homes Program	286,746	6,595,156	23.00	18,488.04
<b>Low Income</b>				
New Mexico EnergySaver Program	948,818	8,596,208	9.06	61,300.06
<b>Commercial</b>				
Small Commercial Comprehensive Program	1,074,432	15,526,813	14.45	52,214.26
SCORE Plus Program	10,076,700	150,534,944	14.94	621,446.83
<b>TOTAL</b>	<b>18,213,422</b>	<b>245,501,284</b>	<b>13.48</b>	<b>1,112,887.04</b>

## Non-Energy Benefits

Table 11 shows the estimated emissions savings and Table 12 shows the estimated water savings associated with the 2016 Programs. The annual and lifetime avoided emissions are determined by multiplying the emission rates times the annual and lifetime MWh saved. The water savings are determined by multiplying EPE's average portfolio water consumption per MWh times the annual and lifetime energy savings.

Emission Type	Avoided Electric Emission Rate (lbs/MWh)	Annual Avoided Emissions (tons)	Lifetime Avoided Emissions (tons)
SO <sub>2</sub>	0.0066	0.05	0.69
NO <sub>x</sub>	1.56	12.29	163.15
CO <sub>2</sub>	1,269.00	9,982.00	132,554.00
Particles	0.1035	0.81	10.80

Water Impact	EPE Portfolio Water Consumption (gal/MWh)	Annual Water Saved (gal)	Lifetime Water Saved (gal)
Water Saved	642.9	11,709,964	157,840,260

## Tariff Reconciliation

Table 13 presents the calculation for EPE's cumulative cost recovery balance based on the 2015 under-recovery balance, the 2016 Program expenditures, the approved 2016 utility incentive, and the cost recovery through EPE's Rate No. 17 - Efficient Use of Energy Recovery Factor ("EUERF") from January through December 2016. The costs recovered through the EUERF are not otherwise recovered through EPE's base rates.

Description	Program Expenses	7% Utility Incentive	EUERF Recovery	Cumulative Balance
2015 Over Recovery Balance				\$ (1,326,209)
2016 Energy Efficiency Activity	5,497,809.04	\$ 384,846.63	\$ 4,556,380	\$ 67
<b>Ending Balance</b>				<b>\$ 67</b>

EPE's cumulative under-recovery balance at the end of 2016 was \$67 for the expenses associated with the implementation of its energy efficiency programs and the overall recovery

through the EUERF. Based on the \$67 under-recovery, EPE will not need to adjust its approved 2017 EUERF of 3.075% for program year 2018.

Table 14 presents the month-by-month reconciliation of EPE's cost recovery balance.

<b>Month</b>	<b>Program Expenses</b>	<b>7% Utility Incentive</b>	<b>EUERF Recovery</b>	<b>Under (Over) Recovery Balance</b>
Beg. Bal.				\$ (1,326,209)
Jan 2016	\$ -	-	\$ 315,385	\$ (1,641,594)
Feb 2016	\$ 124,293	\$ 8,700	\$ 301,346	\$ (1,809,947)
Mar 2016	\$ 333,307	\$ 23,331	\$ 286,835	\$ (1,740,144)
Apr 2016	\$ 231,255	\$ 16,188	\$ 280,863	\$ (1,773,564)
May 2016	\$ 535,763	\$ 37,503	\$ 331,984	\$ (1,532,282)
Jun 2016	\$ 588,562	\$ 41,199	\$ 453,323	\$ (1,355,844)
Jul 2015	\$ 299,027	\$ 20,932	\$ 537,981	\$ (1,573,866)
Aug 2016	\$ 562,993	\$ 39,410	\$ 514,818	\$ (1,486,281)
Sep 2016	\$ 354,890	\$ 24,842	\$ 541,804	\$ (1,648,353)
Oct 2016	\$ 435,192	\$ 30,463	\$ 396,670	\$ (1,579,367)
Nov 2016	\$ 310,673	\$ 21,747	\$ 271,297	\$ (1,518,243)
Dec 2016	\$ 1,721,854	\$ 120,530	\$ 324,073	\$ 67
<b>Total</b>	<b>\$ 5,497,809</b>	<b>\$ 384,847</b>	<b>\$ 4,556,380</b>	

## **ATTACHMENT A**

**Evaluation of El Paso Electric Company 2016 DSM Portfolio  
prepared by ADM Associates, Inc.**