

## ANNUAL REPORT FOR ENERGY EFFICIENCY PROGRAMS CALENDAR YEAR 2019

## NMPRC EFFICIENT USE OF ENERGY RULE 17.7.2 NMAC

**JUNE 1, 2020** 

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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 2019 ("2019 Programs"). This Annual Report for Energy Efficiency Programs ("Annual Report") covers the program period from January 1, 2019, through December 31, 2019, and relies on the statewide independent evaluator's report, Evaluation of the 2019 El Paso Electric Energy Efficiency Programs ("EM&V Report") prepared by Evergreen Economics ("Evergreen"). The EM&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") as part of EPE's 2019-2021 Energy Efficiency and Load Management Plan in accordance with 17.7.2.8(A) NMAC. See Final Order Adopting Recommended Decision in Case No. 18-00116-UT (March 6, 2019) ("Final Order").

## Summary of Results

The following 2019 Programs are included in this Annual Report:

- LivingWise® Program
- Residential Comprehensive Program
- Residential Lighting Program
- **ENERGY STAR® New Homes Program**
- NM EnergySaver (Low Income) Program
- **Commercial Load Management**
- Commercial Comprehensive Program
- SCORE Plus Program

Results are based upon the EM&V Report by Evergreen.

The following is a short summary of the overall results<sup>1</sup>:

- EPE's 2019 EE/LM Portfolio achieved cost effectiveness of 1.48<sup>2</sup> as measured by the Utility Cost Test ("UCT"). The majority of the 2019 Programs were cost effective.
- The total annual net energy savings were 16,549,072 kilowatt-hours ("kWh") at the customer
- The total 2019 Programs expenditures were \$5,116,681.
- The total amount collected through Rate No. 17 Efficient Use of Energy Recovery Factor ("EUERF") was \$4,577,965.

<sup>&</sup>lt;sup>1</sup> Totals in tables may not tie due to rounding.

<sup>&</sup>lt;sup>2</sup> 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 program costs for the 2019 Programs.

Table 1 - 2019 Results Summary

Program	Participants or Units	Annual Savings (kW)	Annual Savings (kWh)	Lifetime Savings (kWh)	Total Program xpenses*
Educational					
LivingWise Program	2,466	40	448,180	3,804,006	\$ 67,784
Residential					
Residential Comprehensive Program	1,333	1,611	2,673,452	39,696,115	\$ 944,460
Residential Lighting Program	205,534	724	4,290,570	42,357,213	\$ 556,354
ENERGY STAR New Homes Program	400	224	502,848	10,461,944	\$ 407,487
Low Income					
NM EnergySaver Program	735	739	2,159,256	34,312,955	\$ 829,992
Commercial					
Commercial Load Management	6	492	6,392	6,392	\$ 165,882
Commercial Comprehensive Program	147	191	1,509,839	21,829,230	\$ 492,885
SCORE Plus Program	74	871	4,958,534	72,363,576	\$ 1,651,837
TOTAL	210,695	4,892	16,549,072	224,831,431	\$ 5,116,681

<sup>\*</sup>Total Program Expenses include EPE's internal administration costs of \$227,942 recovered through base rates, therefore those costs are not recovered in Rate No. 17 - EUERF.

Table 2 presents the 2019 Benefit-Cost Analysis by Program based on the net present value ("NPV") of the 2019 Programs' benefits, expenses, and the program and portfolio UCT ratios. In accordance with the New Mexico Efficient Use of Energy Act ("EUEA") NMSA 1978 Section 62-17-5, EPE's portfolio of programs meets the UCT cost-effectiveness standard.

Table 2 - 2019 Benefit-Cost Analysis by Program

Program	NPV of Benefits	NPV of Expenses	ист
Educational			
LivingWise Program	\$ 85,668	\$ 67,784	1.26
Residential			
Residential Comprehensive Program	\$ 2,230,321	\$ 944,460	2.36
Residential Lighting Program	\$ 1,149,479	\$ 556,354	2.07
ENERGY STAR New Homes Program	\$ 366,018	\$ 407,487	0.90
Low Income			
NM EnergySaver Program	\$ 1,452,958	\$ 829,992	1.75
Commercial			
Commercial Load Management Program	\$ 100,937	\$ 165,882	0.61
Commercial Comprehensive Program	\$ 452,264	\$ 492,885	0.92
SCORE Plus Program	\$ 1,714,061	\$ 1,651,837	1.04
TOTAL	\$ 7,551,705	\$ 5,116,681	1.48

# 2019 Cumulative Program Goals

Table 3 provides the annual and cumulative energy savings achieved from 2008 through 2019. The EUEA requires that EPE achieve cumulative savings of 65,815,596 kWh by 2014, which is equal to five percent (5%) of EPE's 2005 retail sales, and 105,304,953 kWh by 2020, which is equal to eight percent (8%) of EPE's 2005 retail sales. By the end of 2019, EPE had achieved a cumulative total savings of 152,067,100 kWh. This exceeds the 2020 statutory goal by about 44 percent.

The 2019 cumulative savings includes all annual savings for program years 2008 through 2019, less the 2008 annual expired portfolio kWh. Those savings were removed once they expired in 2015.

**Table 3 - 2019 Cumulative Energy Savings** 

Year	Portfolio EUL	Annual kWh Savings	Annual Expired Portfolio kWh	Cumulative kWh Savings	EUEA Goal
2008	7	855,912		855,912	
2009	11	4,667,928		5,523,840	
2010	13	5,169,908		10,693,748	
2011	13	14,728,590		25,422,338	
2012	13	13,537,655		38,959,993	
2013	11	12,832,995		51,792,988	
2014	13	20,692,228		72,485,216	65,815,596
2015	13	15,729,342		88,214,558	
2008 Expired			(855,912)	87,358,646	
2016	13	18,213,422		105,572,068	
2017	14	12,729,242		118,301,310	
2018	14	17,216,718		135,518,028	
2019	14	16,549,072		152,067,100	
2020					105,304,953

# **Section II. Program Descriptions**

## **Educational Program**

#### LivingWise Program

The LivingWise Program is an educational program that targets fifth grade students. Participating teachers are provided educational materials that are presented in the classroom. Students receive a kit containing energy and water efficient devices for installation at home to generate immediate and long-term resource savings. EPE contracted with Franklin Energy Services to implement and manage this program. Franklin Energy Services identified and enrolled teachers and their students within EPE's New Mexico service territory. EPE distributed 2,466 kits during the 2019 fall semester and achieved a net savings of 448,180 kWh.

## Residential Programs

#### **Residential Comprehensive Program**

The Residential Comprehensive Program offers rebates for building envelope and weatherization measures to include air infiltration, duct sealing, ceiling and floor insulation, solar screens, evaporative coolers, refrigerated air conditioners, heat pumps, HVAC Tune-Ups, as well as ENERGY STAR® cool roofs, windows, smart thermostats, and pool pumps. The rebates are paid directly to the customer, or upon customer approval, can be paid to the contractors that perform the installation. EPE contracted with Frontier Energy to administer the rebate process. EPE promoted this program through various outreach methods including radio and newspaper advertising, bill inserts, and targeted outreach to contractors that install these measures. In 2019, a total of 1,333 rebates were processed with a net savings of 2,673,452 kWh.

#### **Residential Lighting Program**

The Residential Lighting Program provides incentives in the form of markdowns at retail locations. The program encourages customers to replace their existing inefficient light bulbs with more energy efficient Light Emitting Diodes ("LED") lighting. EPE contracted with CLEAResult Consulting to provide outreach and administration for this program. A total of 30 retail locations participated in this program. EPE promoted the Residential Lighting Program through radio and newspaper advertising, social media, and point-of-purchase displays in stores. Additionally, EPE partnered with New Mexico State University to promote energy efficiency and provide free LED light bulbs at several successful athletic events. Free LED events were also held at food pantries and EPE payment centers in Anthony, Sunland Park, and Las Cruces.

As part of the Commission's Final Order, on page 5, paragraph 13, EPE was directed to:

 review annually the cost effectiveness of the Residential Lighting program, employing the UCT. This annual review must compare the cost effectiveness of the total program, including CFL and halogen lighting, to LED lighting alone within the program. The results of this review must be included in EPE's annual energy efficiency report.

Having conducted the review, EPE determined that 100% of the lighting products distributed through the Residential Lighting Program in 2019 were LEDs. Therefore, there is no difference between the cost effectiveness of the total program and the cost effectiveness of LED lighting alone. A total of 205,534 bulbs were sold and distributed through this program, with a net savings of 4,290,570 kWh.

#### **ENERGY STAR® New Homes Program**

The ENERGY STAR® New Homes Program provides incentives for homebuilders to construct energy efficient homes that exceed current 2009 International Energy Conservation Code ("IECC") standards. EPE offered two incentive paths depending on which best fits the homebuilders' needs. The Performance Path provides tiered incentive levels for new homes that exceed the 2009 IECC building code goals by ten percent. The Prescriptive Path provides incentives for measures that exceed building code requirements. The installation of a combination of measures includes ENERGY STAR® lighting, refrigerators, radiant barriers, insulation, and refrigerated air conditioning. EPE contracted with ICF to implement and manage this program. EPE promoted this program through various informational training sessions for homebuilders and real estate agents in the area throughout the year. EPE provided yard signs for homes in the Performance Path, advertising that their homes were more energy efficient than other homes in the area. EPE targeted its marketing efforts through the Las Cruces Home Builders Association and its trade magazine. In 2019, 400 homes participated in this program and had a net savings of 502,848 kWh.

#### 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. Qualification for the Program is based on an annual household income at or below 200 percent of the federal poverty guidelines. Frontier Energy administered and tracked the results of this program, and EnergyWorks identified customers and implemented the direct installs. Homes with refrigerated air conditioning qualified for LEDs, attic insulation, air infiltration, duct sealing, advanced power strips and smart thermostats. Homes with evaporative coolers qualified for LEDs, advanced power strips and evaporative cooler upgrades. In 2019, EPE continued to expand our efforts to help low-income customers by installing 248 evaporative coolers. Homes with electric water heaters also qualified for low flow kitchen and bathroom faucet aerators, low-flow showerheads, and water heater pipe and tank insulation. Advanced power strips, smart thermostats and evaporative cooler upgrades, water heater pipe and tank insulation were new measures added in 2019. EnergyWorks collaborated with a variety of community organizations, church groups, and low-income service providers, and continued to combine energy efficiency services with New Mexico Gas Company and Zia Natural Gas Company when possible to provide customers a more comprehensive energy efficiency service approach. EPE promoted this program through outreach utilizing referrals, door-to-door marketing, and radio and newspaper advertising. EPE and EnergyWorks also targeted customers with ability to pay issues through community educational events at EPE payment centers.

The Final Order, page 11, paragraph 29, directed EPE and its Measurement & Verification ("M&V") Evaluator to:

• meet with Staff and the parties, on or before June 1, 2019, to devise more comprehensive and meaningful measures of the program's effectiveness and to include such measures in EPE's next annual report and thereafter.

EPE met with the M&V Evaluator, Commission Staff, and the parties to analyze and incorporate cost effective measures in the program. As a result of these meetings, EPE agreed to provide a report with a more comprehensive and meaningful breakdown of measure sectors to show the program's effectiveness. The results are shown in Table 4 below.

Table 4 - 2019 NM EnergySaver Program Summary

	Home Count			Expected Gross kW Savings**	Expected Gross kWh Savings**
<b>Building Envelope</b> (Evap. Coolers, Insulation, Air Infiltration, Duct Efficiency)		622	622	688	1,715,539
Water Heating (Low Flow Showerheads, Aerators, Pipe Wrap, Water Heater Jackets)		410	554	5	81,477
LED Lighting		584	10,799	16	105,400
Small Energy Devices (Advanced Power Strips, Smart Thermostats)		82	82	0	20,723
Total	735	1,698	12,057	709	1,923,139

<sup>\*</sup> Multiple units per home. Count provided for # of LEDs, faucet aerators, showerheads, etc.

This program had 735 participants and had a net savings of 2,159,256 kWh.

## Commercial Programs

#### **Commercial Load Management Program**

The Commercial Load Management Program provides energy efficiency incentives to participating commercial customers that provide voluntary load curtailment during the peak demand season of June 1 through September 30. Incentives are based on verified demand savings that customers achieve for participating in load management events called by EPE. EPE contracted with Trane US ("Trane") to actively recruit eligible customers and provide a detailed evaluation of building operations to estimate optimal load shedding options, installation and integration of controls as needed, enabling real-time energy use monitoring. Trane calculates and verifies demand savings and dispenses incentive payments. The 2019 inaugural load management season had one participant with six sites that had a total demand reduction of 492 kW. In late 2019, the Commercial Load Management Program acquired a second participant for a total contracted amount slated for 2020 of 1,130 kW demand reduction potential.

**Table 5 - Commercial Load Management Events** 

Event Date	Start Time	End Time	Duration (Hr)
8/2/2019	2:30 PM	4:30 PM	2.0
8/7/2019	3:30 PM	5:30 PM	2.0
9/18/2019	3:30 PM	5:30 PM	2.0
9/23/2019	3:00 PM	5:00 PM	2.0
9/25/2019	3:30 PM	5:30 PM	2.0
9/26/2019	3:00 PM	5:00 PM	2.0
9/27/2019	3:00 PM	5:00 PM	2.0
9/30/2019	2:30 PM	4:30 PM	2.0
8	16.0		

<sup>\*\*</sup> Reference the EM&V Report in Attachment A.

## **Commercial Comprehensive Program**

The Commercial Comprehensive Program provides energy efficiency incentives and rebates for commercial customers whose average annual demand is up to and including 100 kilowatts ("kW"). Incentives and rebates are offered for lighting and lighting controls, Heating, Ventilation, and Air Conditioning ("HVAC") upgrades and HVAC controls, HVAC tune-ups, cool roofs, window treatments, water conservation measures and more. EPE contracted with Frontier Energy to implement the program, administer the incentive and rebate process, and track the results of the program. EPE and Frontier Energy identified possible energy efficiency measures by conducting walk-through audits. EPE advertised the Commercial Comprehensive Program through print, digital, and radio campaigns, and business events. To further promote this program, EPE and Frontier Energy reached out to electrical and HVAC contractors and distributors, and property managers. Three High Performance HVAC Tune-Up trainings were provided to interested HVAC contractors. A lunch and learn was held in Hatch to provide small commercial business customers from Hatch, Las Uvas, Rincon, Salem, Garfield and Arrey an opportunity to learn about the program and the incentives offered by both EPE and Zia Natural Gas Company.

The Final Order, page 6, paragraph 14, directed EPE to:

undertake annual reviews in this program as well, including (1) comparison of the costeffectiveness of LED lighting versus CFL and halogen lighting;
 (2) participation rates for each type of light in the program; and (3) savings for each type of
light actually achieved. The results of this review must be included in EPE's annual energy
efficiency report.

Having conducted the review, EPE determined that 100% of the lighting products distributed through the Commercial Comprehensive Program in 2019 were LEDs or controls for LED fixtures. Therefore, there is no difference between the cost effectiveness of the total program and the cost effectiveness of LED lighting alone. Table 6 shows the participation rates for each type of light in the program.

Table 6 - 2019 Commercial Comprehensive Lighting Participation Rates

Fixture Type	Expected Gross kWh Savings*	%
Halogen	-	0.0%
High Intensity Discharge (HID)	1	0.0%
Integrated-ballast CFL Lamps	ı	0.0%
Integrated-ballast CCFL Lamps	ı	0.0%
Modular CFL and CCFL Fixtures	ı	0.0%
Integrated-ballast LED Lamps	305,169	15.0%
Light Emitting Diode (LED)	1,704,127	83.8%
Linear Fluorescent	-	0.0%
Lighting Controls	24,545	1.2%
Total	2,033,841	100.0%

<sup>\*</sup> Expected Gross kWh savings are only for the lighting and controls components of the Program.

The Commercial Comprehensive Program had 147 participants and had a net savings of 1,509,839 kWh.

## **SCORE Plus Program**

The SCORE Plus Program offers customer incentives, technical support, and outreach services to commercial customers with an annual average demand of greater than 100 kW, as well as schools and government, regardless of their annual average demand. This program offers incentives for a range of energy efficiency measures including lighting, lighting controls, HVAC upgrades, HVAC controls, and more, as well as custom projects. EPE contracted with CLEAResult to actively recruit eligible customers and 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. A High Performance HVAC Tune-Up training was provided to interested HVAC contractors. In 2019, a total of 74 participants had a net savings 4,958,534 kWh through various energy efficiency measures.

# Section III. Energy Efficiency Rule Reporting Requirements

Section III of the Annual Report provides program information to comply with the EUEA as required by the NMPRC Energy Efficiency Rule 17.7.2.14.

## Documentation of Program Expenditures

Table 7 shows the 2019 expenses by program. The Commission approved EPE's 2019 Program budget in accordance with 17.7.2.8(A) NMAC. All 2019 Program expenses were tracked through a unique work order number. Likewise, all revenue collected through EPE's EUERF was booked to a separate work order number. The total 2019 program expenses were \$5,116,681 of the approved \$5,723,226 budget or about 89.4 percent of the budget.

**Table 7 - 2019 Program Expenditures** 

Programs	Adn	ninistration*	Marketing			M&V	Customer ncentives	Total Program Expenses		
Educational										
LivingWise Program	\$	8,444	\$	-	\$	-	\$ 59,340	\$	67,784	
Residential										
Residential Comprehensive Program	\$	208,963	\$	37,105	\$	25,750	\$ 672,643	\$	944,460	
Residential Lighting Program	\$	187,656	\$	20,094	\$	-	\$ 348,603	\$	556,354	
ENERGY STAR New Homes Program	\$	179,755			\$	-	\$ 227,732	\$	407,487	
Low Income										
NM EnergySaver Program	\$	105,920	\$	36,559	\$	26,957	\$ 660,555	\$	829,992	
Commercial										
Commercial Load Management	\$	128,890	\$	962	\$	15,000	\$ 21,030	\$	165,882	
Commercial Comprehensive	\$	170,090	\$	12,907	\$	25,959	\$ 283,929	\$	492,885	
SCORE Plus Program	\$	700,165	\$	39,840	\$	35,943	\$ 875,889	\$	1,651,837	
TOTAL	\$	1,689,884	\$	147,467	\$	129,609	\$ 3,149,722	\$	5,116,681	

<sup>\*</sup>Administration includes EPE's internal administration costs of \$227,942 recovered through base rates, therefore those costs are not recovered in Rate No. 17 - EUERF.

Table 8 shows the breakdown of customer incentives by rate class.

Table 8 - Customer Incentives by Rate Class

				Small General		City and			State		Laı	rge Power	Total				
	F	Residential	Co	mmercial		Service		County		Large Power		University		Interruptible		Participant	
Program		NMRT01	1	NMRT03	- 1	MRT04	NMRT07		NMRT09		NMRT26		NMRT29		Incentive		
Educational																	
LivingWise Program	\$	59,340	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	59,340	
Residential																	
Residential Comprehensive Program	\$	672,643	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	672,643	
Residential Lighting Program	\$	348,603	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	348,603	
ENERGY STAR New Homes Program	\$	227,732	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	227,732	
Low Income																	
NM EnergySaver Program	\$	660,555	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	660,555	
Commercial																	
Commercial Load Management	\$	-	\$	-	\$	-	\$	21,030	\$	-	\$	-	\$	-	\$	21,030	
Commercial Comprehensive	\$	-	\$	157,198	\$	126,731	\$	-	\$	-	\$	-	\$	-	\$	283,929	
SCORE Plus Program	\$	-	\$	300	\$	593,767	\$	83,434	\$	52,287	\$	117,478	\$	28,623	\$	875,889	
TOTAL	\$	1,968,873	\$	157,498	\$	720,498	\$	104,464	\$	52,287	\$	117,478	\$	28,623	\$	3,149,722	

EPE did not make any adjustments to expenditures in plan year 2019. Table 9 shows the budgeted amounts, the program expenditures, and the variances for each program during 2019. The variances in individual program costs from the budgeted amounts were primarily due to customer participation being lower or higher than projected.

**Table 9 - Budget Variances** 

Tubic 5 Budget Validitees											
Program	202	19 Approved Budget	2019 Actual Expenses	Variance %							
Educational											
LivingWise Program	\$	75,939	67,784	-11%							
Residential											
Residential Comprehensive Program	\$	1,113,201	944,460	-15%							
Residential Lighting Program	\$	568,443	556,354	-2%							
ENERGY STAR New Homes Program	\$	445,707	407,487	-9%							
Low Income											
NM EnergySaver Program	\$	555,171	829,992	50%							
Commercial											
Commercial Load Management Program	\$	378,313	165,882	-56%							
Commercial Comprehensive Program	\$	1,017,499	492,885	-52%							
SCORE Plus Program	\$	1,568,955	1,651,837	5%							
TOTAL	\$	5,723,226	\$ 5,116,681	-11%							

# Estimated and Actual Customer Participation and Savings Levels

Table 10 presents the estimated and actual customer participation levels, annual energy savings, and annual peak demand savings for each program.

Table 10 - Estimated vs. Actual

Program	Estimated Participants or Units	Actual Participants or Units	Estimated Savings (kWh)	Actual Savings (kWh)	Estimated Savings (kW)	Actual Savings (kW)
Educational						
LivingWise Program	3,050	2,466	863,634	448,180	10	40
						-
Residential Comprehensive Program	2,336	1,333	3,308,960	2,673,452	1,989	1,611
Residential Lighting Program*	101,325	205,534	1,184,390	4,290,570	120	724
ENERGY STAR New Homes Program	300	400	587,895	502,848	285	224
						-
NM EnergySaver Program	42,785	735	1,845,568	2,159,256	259	739
Commercial Load Management	15	6	40,903	6,392	4,083	492
Commercial Comprehensive Program	295	147	4,139,158	1,509,839	722	191
SCORE Plus Program	175	74	5,520,186	4,958,534	1,309	871
TOTAL	150,281	210,695	17,490,694	16,549,072	8,777	4,892

<sup>\*</sup> In Case No. 18-00116-UT, the Commission ordered the inclusion of the Residential Lighting Program in EPE's 2019-2021 EE/LM Program portfolio.

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

Table 11 presents the net present value of estimated and actual monetary expenses and benefits for each program.

Table 11 - Estimated and Actual Costs (Expenses) and Avoided Costs (Benefits)

	Estimated NPV of Monetary Costs		Actual NPV of Monetary Costs		timated NPV of Monetary Benefits	Actual NPV of Monetary Benefits		
Educational								
LivingWise Program	\$	75,939	\$	67,784	\$ 90,676	\$	85,668	
Residential								
Residential Comprehensive Program	\$	1,113,201	\$	944,460	\$ 1,672,040	\$	2,230,321	
Residential Lighting Program	\$	568,443	\$	556,354	\$ 722,701	\$	1,149,479	
ENERGY STAR New Homes Program	\$	445,707	\$	407,487	\$ 445,796	\$	366,018	
Low Income								
NM EnergySaver Program	\$	555,171	\$	829,992	\$ 604,987	\$	1,452,958	
Commercial								
Commercial Load Management	\$	378,313	\$	165,882	\$ 395,349	\$	100,937	
Small Commercial Comprehensive Program	\$	1,017,499	\$	492,885	\$ 1,244,497	\$	452,264	
SCORE Plus Program	\$	1,568,955	\$	1,651,837	\$ 2,080,880	\$	1,714,061	
TOTAL	\$	5,723,226	\$	5,116,681	\$ 7,256,926	\$	7,551,705	

#### Cost Effectiveness Evaluation

Table 12 presents the UCT for each program for 2019. The UCT of the total portfolio of programs was 1.48. A UCT of greater than one indicates the cost effectiveness of the energy efficiency portfolio or program. UCTs are based on NMPRC Case No. 18-00116-UT weighted average cost of capital and avoided costs. EPE's 2019 total portfolio of programs passed cost effectiveness.

Table 12 - Cost Effectiveness by Program

Program	UCT		
Educational			
LivingWise Program	1.26		
Residential			
Residential Comprehensive Program	2.36		
Residential Lighting Program	2.07		
ENERGY STAR New Homes Program	0.90		
Low Income			
NM EnergySaver Program	1.75		
Commercial			
Commercial Load Management	0.61		
Small Commercial Comprehensive Program	0.92		
SCORE Plus Program	1.04		
TOTAL	1.48		

## Self-Directed Program Participation

EPE did not receive any applications for customer self-directed programs in 2019.

# Independent Measurement and Verification Report

The statewide independent evaluator, Evergreen, was selected by the NMPRC. EPE contracted with Evergreen to conduct the independent evaluation of its 2019 Programs. The EM&V Report is included as Attachment A to 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 2019 Programs;
- Deemed savings and other assumptions used by Evergreen; and,
- Description of the M&V process used by Evergreen.

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

All program-related expenditures are included in the EM&V Report.

## Annual Economic Benefits by Program

Table 13 presents the annual and lifetime energy savings, estimated useful life ("EUL"), and annual economic benefits for the 2019 Programs. The average EUL is calculated by dividing the total lifetime energy savings by the annual energy savings, resulting in an average estimate of how long measures will continue to provide savings.

**Table 13 - Annual Economic Benefits** 

Program	Annual Energy Savings (kWh)	Lifetime Energy Savings (kWh)			Annual Benefits	
Educational						
LivingWise Program	448,180	3,804,006	8	\$	10,093	
Residential						
Residential Comprehensive Program	2,673,452	39,696,115	15	\$	150,208	
Residential Lighting Program	4,290,570	42,357,213	10	\$	116,436	
ENERGY STAR New Homes Program	502,848	10,461,944	21	\$	17,592	
Low Income						
NM EnergySaver Program	2,159,256	34,312,955	16	\$	91,432	
Commercial						
Commercial Load Management	6,392	6,392	1	\$	100,937	
Small Commercial Comprehensive Program	1,509,839	21,829,230	14	\$	31,281	
SCORE Plus Program	4,958,534	72,363,576	15	\$	117,452	
TOTAL	16,549,072	224,831,431	14	\$	635,432	

## Non-Energy Benefits

Table 14 shows the estimated emissions savings, and Table 15 shows the estimated water savings associated with the 2019 Programs. The annual and lifetime avoided emissions are determined by multiplying the emission rates times the annual and lifetime megawatt-hours ("MWh") saved. The water savings are determined by multiplying EPE's average portfolio water consumption per MWh times the annual and lifetime energy savings.

**Table 14 - Emissions Savings** 

Emission Type	Avoided Electric Emmision Rate (lbs/MWh)	Annual Avoided Emissions (tons)	Lifetime Avoided Emissions (tons)
SO <sub>2</sub>	0.0058	0.05	0.65
NO <sub>x</sub>	1.03	8.55	116.23
CO <sub>2</sub>	1,145	9,471	128,671
Particles	0.0870	0.72	9.78

**Table 15 - Water Savings** 

Water Impact	EPE Portfolio Water Consumption (gal/MWh)	Annual Water Saved (gal)	Lifetime Water Saved (gal)
Water Saved	476.8	7,890,071	107,192,476

#### **Tariff Reconciliation**

Table 16 presents the calculation for EPE's 2019 tariff reconciliation based on the 2019 program expenditures plus the approved 2019 utility incentive, less EPE's internal administration costs, and less the cost recovery through EPE's EUERF from January through December 2019. The costs recovered through the EUERF are therefore not recovered through EPE's base rates.

EPE's 2019 utility incentive is based on its costs and satisfactory performance of measures and programs. Utilizing the sliding scale utility incentive approved by the Final Order (7.1 percent for verified annual savings of at least 12 gigawatt-hours ("GWh") with an adder incentive of 0.075 percent for each 1.0 GWh of additional energy savings, up to a maximum of 7.6657 percent), EPE earned a profit incentive of 7.625 percent for its verified annual energy savings of 16.55 GWh.

Table 16 - Energy Efficiency Historical (Underage)/Overage Recovery

Description	Total Program Expenses	7.625% Utility Incentive	Internal Admin Costs Recovered Through Base Rates	EUERF Recovery	(Underage)/ Overage	
Beginning Balance (PY2017)					\$ (609,580)	
2019 Energy Efficiency Activity	\$ 5,116,681	\$ 390,147	\$ 227,942	\$ 4,577,965	\$ 91,341	
Ending Balance					\$ 91,341	

EPE's beginning balance originated from an underage of \$609,580 for Program Year 2017. The total program expenses (\$5,116,681 + \$390,147 utility incentive = \$5,506,828) exceeded the revenues collected (\$227,942 + \$4,577,965 = \$4,805,907) in 2019, resulting in a cumulative overage amount of \$91,341.

Table 17 presents the month-by-month reconciliation of EPE's tariff reconciliation.

Table 17 - Energy Efficiency Historical (Underage)/Overage Recovery

Ţ.		Jieney materiet		<u> </u>	_	ternal Admin				///	
Month	T	otal Program	7.6	25% Utility	Со	sts Recovered	EUERF		'	(Underage)/ Overage of Expenses	
Wionth		Expenses	ı	ncentive	Т	hrough Base		Recovery			
						Rates					
Beg. Bal. (PY2017)										(609,580)	
Jan 2019	\$	18,995	\$	1,448	\$	18,995	\$	351,969		(960,101)	
Feb 2019	\$	30,918	\$	2,357	\$	18,995	\$	323,910		(1,269,731)	
Mar 2019	\$	111,659	\$	8,514	\$	18,995	\$	315,726		(1,484,278)	
Apr 2019	\$	157,859	\$	12,037	\$	18,995	\$	214,906		(1,548,284)	
May 2019	\$	173,748	\$	13,248	\$	18,995	\$	315,774		(1,696,056)	
Jun 2019	\$	287,769	\$	21,942	\$	18,995	\$	432,283		(1,837,623)	
Jul 2019	\$	481,870	\$	36,743	\$	18,995	\$	497,222		(1,835,228)	
Aug 2019	\$	641,661	\$	48,927	\$	18,995	\$	496,467		(1,660,102)	
Sep 2019	\$	366,424	\$	27,940	\$	18,995	\$	573,152		(1,857,886)	
Oct 2019	\$	492,652	\$	37,565	\$	18,995	\$	454,447		(1,801,112)	
Nov 2019	\$	658,782	\$	50,232	\$	18,995	\$	297,290		(1,408,383)	
Dec 2019	\$	1,694,345	\$	129,194	\$	18,995	\$	304,819	\$	91,341	
Total	\$	5,116,681	\$	390,147	\$	227,942	\$	4,577,965			

# Estimated Program Expenditures Expected in 2020

Table 18 shows estimated program expenditures for 2020. EPE's Program Year 2020 budget, approved in NMPRC Case No. 18-00116-UT on March 6, 2019, is \$5,113,646 (excluding the Program Year 2018 overage of \$365,102).

Table 18 - Estimated Program Expenditures Expected in 2020

2020 Program	Budget		
Educational			
LivingWise Program	\$	76,021	
Residential			
Residential Comprehensive Program	\$	950,064	
Residential Lighting Program	\$	483,180	
ENERGY STAR New Homes Program	\$	446,895	
Low Income			
NM EnergySaver Program	\$	537,717	
Commercial			
Commercial Load Management	\$	382,212	
Commercial Comprehensive Program	\$	717,100	
SCORE Plus Program	\$	1,520,458	
TOTAL	\$	5,113,646	

On May 22, 2020, EPE filed a motion with the Commission to modify its 2019-2021 Energy Efficiency and Load Management Plan to approve a new Residential Load Management Program for the remaining 2020 and 2021. Expected adjustments for 2020 are shown in Table 19 if the Motion to Modify is approved.

Table 19 - Estimated Program Expenditures Expected in 2020 if Motion to Modify is approved

2020 Program	Budget		
Educational			
LivingWise Program	\$ 76,021		
Residential			
Residential Comprehensive Program	\$ 862,164		
Residential Lighting Program	\$ 483,180		
ENERGY STAR New Homes Program	\$ 446,895		
Residential Load Management Program	\$ 350,000		
Low Income			
NM EnergySaver Program	\$ 537,717		
Commercial			
Commercial Load Management	\$ 382,212		
Commercial Comprehensive Program	\$ 455,000		
SCORE Plus Program	\$ 1,520,458		
TOTAL	\$ 5,113,646		