2018

ENERGY EFFICIENCY AND

LOAD MANAGEMENT

PROGRAM PLAN

NMPRC CASE NO. 17-00___-UT

APRIL 14, 2017

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1 EXECUTIVE SUMMARY

PNM began offering Energy Efficiency (EE) and Load Management (LM)[1] programs to residential and commercial customers in October 2007, with the approval of the New Mexico Public Regulation Commission (NMPRC) in Case No. 07-00053-UT. The NMPRC approved subsequent EE programs in Case No. 08-00204-UT in May 2009, in Case No. 10-00280-UT in June 2011, in Case No. 12-00317-UT in November 2013, in Case No. 14-00310-UT in April 2015 and in Case No. 16-00096-UT in January 2017. Table 1-1 summarizes EE and LM program performance from 2008 through 2016. Detailed analyses of the most recent year's (2016) performance are available in PNM's annual EE and LM program report and measurement and verification report, which are filed concurrently with the 2018 Energy Efficiency and Load Management Program Plan (2018 Plan) and are available at www.pnm.com/regulatory.

Table 1-1

Year	Portfolio Benefit Cost Ratio**	Incremental Annual Energy Savings*	Peak Demand Reduction*	Dispatchable Capacity (DR)	Total Program Expenses ($M)
2008	2.71	35.2GWh	7.5 MW	47 MW	$8.0
2009	1.56	39.9 GWh	6.3 MW	53 MW	$12.0
2010	2.20	58.8 GWh	9.9 MW	67 MW	$16.6
2011	1.78	57.6 GWh	9.7 MW	57 MW	$16.6
2012	2.85	79.3 GWh	13.6 MW	57 MW	$17.3
2013	1.91	75.6 GWh	11.8 MW	62 MW	$18.1
2014	1.74	74.8 GWh	12.0 MW	61 MW	$21.7
2015	1.79	79.3 GWh	12.1 MW	57 MW	$24.3
2016	1.75	82.0 GWh	13.0 MW	57 MW	$25.6

* Savings at the customer meter. Savings at the generator include an additional 8% system losses.

** Utility Cost Test applied beginning in 2015; Total Resource Cost applied in prior years.

The 2018 Plan describes PNM's portfolio of EE and LM programs, and also presents updated participation targets and budgets for the EE and LM programs currently in effect, that were approved by the NMPRC in Case No. 16-00096-UT. PNM is filing the 2018 Plan pursuant to the Efficient Use of Energy Act, NMSA 1978 § 62-17-1*et. seq.,* (EUEA or Act) and the NMPRC's Energy Efficiency Rule, 17.7.2 NMAC (Rule). The NMPRC has proposed a modification to the Rule that would allow for approval of the 2018 Plan for a two year period[2]. Therefore, the 2018 Plan includes proposed budgets and savings for calendar years 2018 and 2019.

[1] Load Management is also referred to as Demand Response (DR), and in this filing, PNM uses the terms 'load management' and 'demand response' interchangeably.

[2] NMPRC Case No. 17-00010-UT.

PNM is proposing to continue all of its existing EE and LM programs, with the modifications described in this Plan, and is not proposing to add any new programs. All programs proposed in the 2018 Plan were selected based on the criteria detailed below, including that they pass the Utility Cost Test (UCT). PNM also carefully considered public comments and suggestions, as described in Section 3, especially from the members of the public advisory group, concerning the reasonableness of program changes. PNM developed the portfolio of programs to appeal to various segments of residential customers, including low-income customers. The 2018 Plan includes low-cost and no-cost programs to achieve broad participation among all residential customers. In addition, every commercial or industrial customer who pays the energy efficiency rider is eligible to participate in the programs for non-residential customers. The proposed 2018 Plan has a total projected 12-month budget of $25,097,573 for calendar year 2018 with projected energy savings of approximately 70 gigawatt-hours (GWh). Tables 1-2 and 1-3 show the projected annual budgets, energy and demand savings, participation targets and the UCT ratios for each program and the total portfolio.

Table 1-2

2018 Program	Budget	Annual kWh Savings	Lifetime kWh Savings	kW Savings	Participation or Units	2018 UCT
Commercial Comprehensive	$ 8,660,343	36,913,336	418,168,592	5,626	855	2.12
Residential Comprehensive	$ 5,007,968	10,074,035	93,812,354	3,836	14,000	1.38
Residential Lighting	$ 3,160,298	16,598,358	232,377,012	2,196	900,000	2.98
PNM Home Works	$ 548,308	1,947,500	19,475,000	92	9,500	1.33
New Home Construction	$ 763,591	840,000	14,280,000	301	1,000	1.12
Energy Smart (MFA)	$ 219,050	348,626	5,954,595	38	230	1.19
Easy Savings Kit	$ 400,971	2,062,120	20,621,200	223	6,200	2.49
Power Saver	$ 4,294,054	750,000	750,000	45,000	46,350	1.13
Peak Saver	$ 1,461,547	600,000	600,000	15,000	110	1.13
Market Transformation	$ 581,444	-	-	-	-	n/a
TOTAL	**$ 25,097,573**	**70,133,976**	**806,038,753**	**72,311**		**1.75**

Table 1-3

2019 Program	Budget	Annual kWh Savings	Lifetime kWh Savings	kW Savings	Participation or Units	2019 UCT
Commercial Comprehensive	$ 9,704,133	40,116,755	457,031,158	6,216	944	2.15
Residential Comprehensive	$ 5,645,399	10,982,537	103,771,273	4,157	15,000	1.37
Residential Lighting	$ 3,577,738	18,442,620	258,196,680	2,440	1,000,000	3.02
PNM Home Works	$ 575,715	2,152,500	21,525,000	102	10,500	1.47
New Home Construction	$ 773,365	861,000	43,554,000	308	1,025	1.16
Energy Smart (MFA)	$ 237,034	366,731	6,280,485	40	230	1.20
Easy Savings Kit	$ 415,101	2,161,900	21,619,000	234	6,500	2.63
Power Saver	$ 4,797,776	1,100,000	1,100,000	50,000	51,500	1.13
Peak Saver	$ 1,763,700	720,000	720,000	18,000	110	1.13
Market Transformation	$ 674,586	-	-	-	-	n/a
TOTAL	**$ 28,164,548**	**76,904,043**	**913,797,597**	**81,496**		**1.79**

1.1 SUMMARY OF CHANGES FROM PREVIOUS PLAN

PNM is not proposing any new programs in the 2018 Plan, but has evaluated existing programs and explored strategies and tactics to increase program effectiveness, and is proposing the following modifications in the 2018 Plan:

- *The total budget for the 2018 Plan is $25,097,573, in compliance with the EUEA's 3% funding requirement.*
- *The total budget for the existing energy efficiency programs is relatively unchanged from 2017, and the budget for load management programs is decreased.*
- *Wi-Fi connected thermostats have been added as options in several programs, including Home Energy Checkup, New Home Construction and PNM Power Saver.*
- *LM programs will be modified on the basis of 2016 solicitations for both the Peak Saver (large customer) and Power Saver (residential/small business customer) programs. New third-party implementation contracts will be in effect in 2018 for both programs.*
- *Enhancements to the Power Saver program include the option to install a Wi-Fi connected thermostat that will provide participants with increased convenience and energy savings.*
- *Enhancements to the Peak Saver program will provide participants with more timely and detailed energy consumption data, will enable faster response times to demand response events, and will give PNM the ability to attract more customers to the program by offering more flexible control strategies.*
- *PNM will undertake a new initiative to support and facilitate commercial building energy benchmarking.*
- *Nearly 100% of Residential Lighting rebates are projected to be for LED bulbs.*
- *A customer segmentation study is planned for 2018 in support of the customer analytics initiative.*

2 PROGRAM GOALS

2.1 LEAST-COST RESOURCE PLANNING

PNM EE and LM programs benefit the PNM system, participating customers, non-participating customers, the environment and the New Mexico economy. The programs were identified as a key resource in the PNM 2014 Integrated Resource Plan (2014 IRP)[3]. The 2014 IRP examined many different portfolios of options that could be implemented to meet expected growth in the demand for electricity from 2014 to 2033. EE and LM programs were consistently found to be cost-effective alternatives for meeting system needs when compared with traditional supply-side resources. The most cost-effective resource portfolio is defined as "those supply-side resources and demand-side resources that minimize the net present value of revenue requirements proposed by the utility to meet electric system demand during the planning period consistent with reliability and risk considerations, as defined in the IRP Rule."[4] PNM is currently updating its integrated resource plan, and anticipates the final IRP report to be released in July 2017. The 2018 Plan includes available information from the 2017 IRP planning process, including a revised estimate of avoided costs which is used to calculate cost-effectiveness of the EE programs.

2.2 REQUIREMENTS OF THE EFFICIENT USE OF ENERGY ACT

Projected growth of PNM's EE and LM programs will allow PNM to achieve the minimum energy saving goals at the budget levels specified in the EUEA. The Act required that PNM achieve cumulative savings of at least 411 GWh in 2014, equivalent to five percent (5%) of PNM's retail sales in 2005, which PNM met.[5] The next compliance year is 2020, when PNM is required to achieve cumulative savings of 658 GWH, or 8% of 2005 retail sales.

New programs are developed according to the specifications included in the Act and the Rule, which include passing the UCT cost-effectiveness test, and meeting or exceeding the EUEA goals. As of year-end 2016, PNM's approved EE programs are achieving cumulative annual net energy savings of about 583 GWh. (Net savings are determined by applying reductions to gross savings that account for free rider impacts and the effective useful life (EUL) of the programs, as determined by the independent evaluator).

For cost-effectiveness analysis and for determining the cumulative savings that contribute to meeting the EUEA goals in 2014 and 2020, PNM calculates the average EUL of the portfolio. This value is determined by dividing the total lifetime savings by the annual savings, resulting in an average estimate of how long measures will continue to provide savings. The average portfolio EUL for the 2016 Program was ten years, a slight increase over the EUL value of nine years reported from 2008 through 2015. The cumulative savings for 2016 are the sum

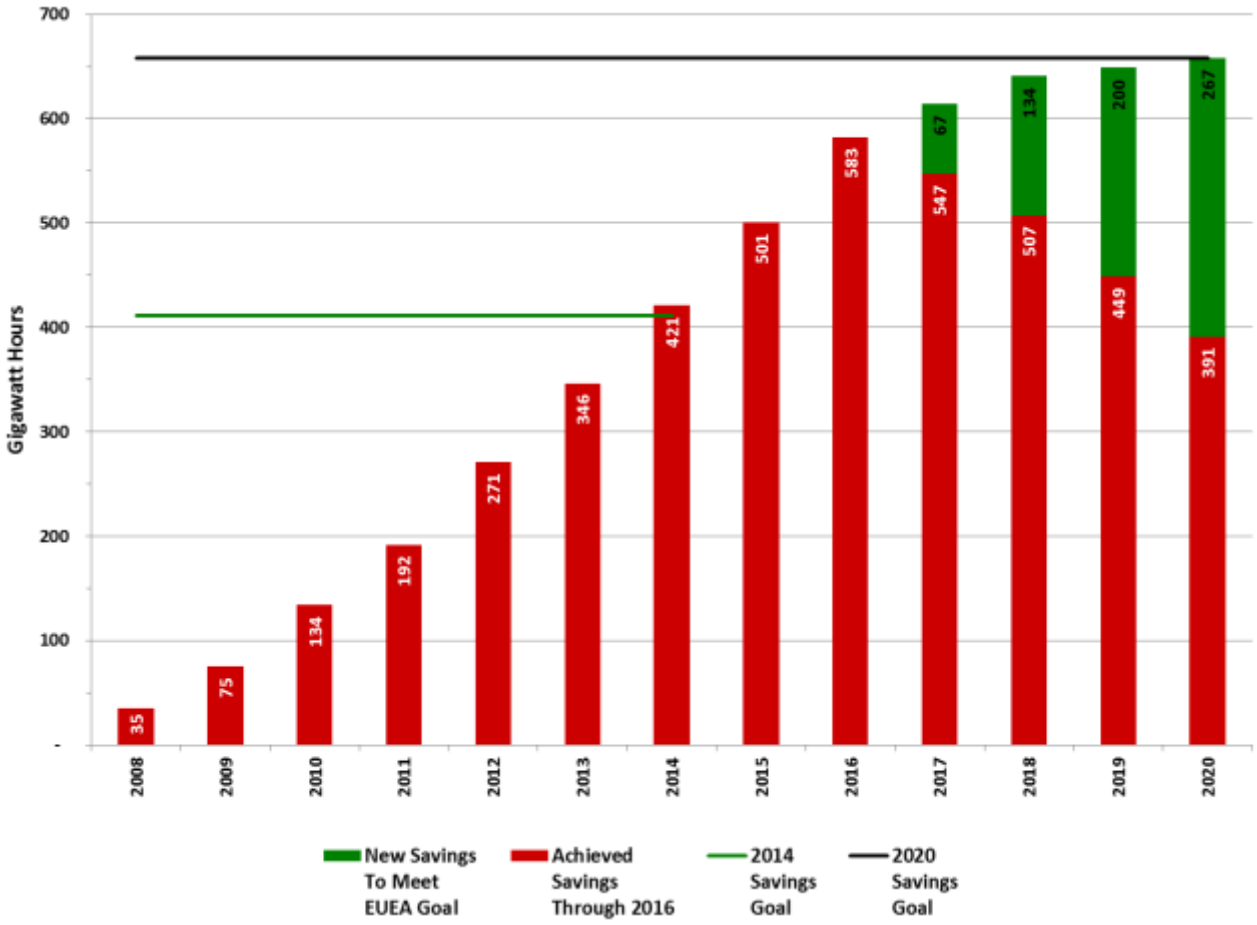
[3] "PNM Integrated Resource Plan: 2014 – 2033", July 2014. http://www.pnm.com/irp

[4] Ibid, Appendix F

[5] "PNM Energy Efficiency Program 2015 Annual Report", April 15, 2016. http://www.pnm.com/regulatory

of all annual savings for the nine years from 2008 through 2016. Beginning in 2017, the 2008 annual savings will no longer contribute to cumulative savings. Based on cumulative savings achieved through 2016, PNM programs must achieve on average 67 GWh of annual savings in years 2017 through 2020 in order to achieve the 2020 minimum savings goal of 658 GWh. Figure 2-1 shows the annual cumulative savings achieved through 2016 and the new savings needed to achieve the EUEA goal in 2020.

Figure 2-1



2.3 INCREASED ADOPTION OF ENERGY EFFICIENCY TECHNOLOGIES

In addition to meeting the requirements of the Act, PNM's EE programs encourage lasting structural and behavioral changes in the New Mexico economy through the process of market transformation. This is accomplished by promoting the purchase of energy efficient products and services, increasing customer awareness of energy efficiency measures, providing incentives to change behaviors, and removing market barriers. Over time, distributors will stock more efficient equipment, contractors will promote more efficient to their customers, and customers will become more inclined to purchase efficient equipment. The programs included in the 2018 Plan address market transformation objectives by continuing initiatives launched in 2017, including continuing to work with organizations such as DesignLight Consortium to incorporate the latest in

efficient lighting technology into our Commercial Comprehensive portfolio, along with the continuous fine tuning of program design and delivery elements in the other PNM EE programs including, but not limited to:

- Implementing multi-channel promotional campaigns that increase customer awareness of EE products and their benefits
- Educating the vendor community of retailers and installation contractors who provide EE products and services, to build awareness, encourage participation and promote consistency in business operations and customer service within
- Partnering with community-based organizations to educate customers
- Using rebates to shift the focus from the initial cost of installing measures to the long-term savings in operating costs
- Simplifying rebates for customers by offering multiple rebate channels, such as online rebate submittal, instant in-store discounts, and mail-in and electronic rebate forms as applicable
- Increasing awareness of low income programs by expanding the Energy$mart program to include additional measures for deeper energy savings, and continuing to monitor and adjust the other low income programs to encourage broad participation across PNM's service territory
- Implementing educational programs for different customer segments about the benefits of the EE programs
- Researching behavioral program alternatives to the Home Energy Reports program (which was cancelled in 2015) to provide program options for future portfolios

3 PROGRAM SELECTION

3.1 PROGRAM RESEARCH

In 2011, Global Energy Partners, under contract to the New Mexico Energy, Minerals and Natural Resources Department, completed an energy efficiency potential study (GEP Potential Study),[6] which identified categories of energy efficient equipment and estimated the technical, economic and market potential for adoption of that equipment in the state. PNM has also conducted secondary product, program and market research, such as the 2013 Residential Appliance Saturation Survey,[7] which provides customer demographics and the prevalence of HVAC and appliance technologies among PNM customers. PNM plans to update the GEP Potential Study for the PNM service territory in 2017. The updated potential study will be used as a reference for future program design and analysis.

Much of the research for the 2018 Plan was done in conjunction with other utilities and through participation in national organizations concerned about energy efficiency such as E Source, Consortium for Energy Efficiency (CEE), American Council for an Energy-Efficient Economy (ACEEE), Southwest Energy Efficiency Project (SWEEP) and Electric Power Research Institute (EPRI).

PNM also solicited input regarding existing and new programs from a public advisory group. A list of those invited to the advisory group meetings is provided in Appendix B. The public advisory group met on February 9, 2017 to discuss the development of the 2018 Plan, and individual members of the public advisory group provided comments and information at other times during the Plan development process.

3.2 SELECTION CRITERIA

The following criteria were considered when evaluating and considering modifications to existing programs:

A. Cost effectiveness – The Act establishes the Utility Cost Test (UCT) as the standard to be used in determining the cost-effectiveness of energy efficiency or load management programs. The UCT, as defined in the Act, "means a standard that is met if the monetary costs that are borne by the public utility and that are incurred to develop, acquire and operate energy efficiency or load management resources on a life-cycle basis are less than the avoided monetary costs associated with developing, acquiring and operating the associated supply-side resources."[8] Any program with a UCT greater than 1.0 is cost effective.

[6] Energy Efficiency Potential Study for the State of New Mexico, Volume 2: Electric Energy Efficiency, Global Energy Partners, 2011

[7] PNM Residential Appliance Saturation Survey, EnerNOC Utility Solutions, December 2013

[8] NMSA 1978 § 62-17-4(K*)*

1. Costs include PNM program administration costs, promotion, third-party implementation, participant rebates/incentives and measurement and verification costs.

2. Benefits include avoided costs to the utility for energy, demand and reductions in CO_2 emissions. PNM's EE avoided costs are provided in Appendix A.

3. All programs in the 2018 Plan are cost-effective because they have a UCT greater than 1.0.

B. System benefits – programs should deliver system benefits through demand and energy savings or the ability to dispatch load or shift it to off-peak times.

The programs selected for the 2018 Plan provide significant energy and demand savings as shown in Table 4-3 below.

C. Broad participation potential – programs should provide the opportunity for broad participation among eligible customer classes targeting residential, commercial, industrial and low-income customers.

The 2018 Plan includes programs for residential customers, low-income customers, homebuilders, commercial and industrial customers.

D. Energy and demand savings – collectively, the proposed programs will contribute to meeting the 2020 savings requirements as set forth in the Act.

E. Non-energy benefits – programs should create significant non-energy benefits, including lower bills for customers, increased consumer awareness and adoption of energy efficient technologies, removal or minimization of market barriers to adoption of energy efficiency products and technologies, and environmental benefits through the reduction in emissions and water use associated with the production of electricity. Programs in the 2018 Plan provide significant non-energy benefits including:

1. Lower bills for those who participate. Energy savings for the measures in each program are shown in Table 4-2. These savings will result in lower bills for those who participate.

2. Increased awareness and adoption of technologies. The programs include substantial promotional efforts designed to increase customer awareness and understanding of energy efficiency. The participation goals, shown in Table 4-1, will insure increased adoption of measures.

3. Water use and CO_2 reduction. The programs result in significant water savings and reduction in greenhouse gases that would not have occurred absent the programs. The estimated reductions are described in Section 4.2.2.

F. Implementation – Programs should have a proven track record in other utility markets and a defined target market within PNM service territories that ensures straightforward program implementation.

Programs are implemented and managed by PNM staff and third-party contractors who are experienced with specific programs and technologies, and who leverage the existing market experience. Table 3-2 lists the parties responsible for program implementation.

G. Measurement and verification (M&V) – Each program implemented should have a defined method for measuring and verifying savings to determine the contribution to overall energy efficiency goals.

PNM has worked closely with independent M&V evaluators since 2008 and will continue to work with the state-appointed evaluator when they examine the 2018 Plan programs. Section 4.4 provides a description of the important elements of program M&V.

H. Performance risk of the technologies – None of the products promoted by any of the programs should rely on unproven technologies.

Each program contained in the 2018 Plan is based on proven measures that have been implemented successfully by other utilities.

3.3 PROGRAM BUDGETS AND COST-EFFECTIVENESS

3.3.1 UCT MODEL

PNM has developed a spreadsheet model for performing the UCT calculation. The input assumptions and UCT results for each program are shown in Appendix E – Technical Manual. Inputs to the UCT model include measure life, per-unit energy and capacity savings, forecasted participation rates, rebate costs, administration costs and M&V costs. These inputs are based on independent measurement and verification reports for past program years, data contained in the 2011 potential study, research on programs at other utilities, and standards set by ENERGY STAR, Consortium for Energy Efficiency (CEE) and other energy efficiency organizations.

Several factors were considered in estimating the participation targets, including past program performance, the potential participation identified in the GEP Potential Study, participation targets identified in responses to requests-for-proposals issued by PNM, and third-party contractor estimates. PNM also considered participation rates at other utilities and the cost impact to participants of installing efficiency measures.

3.3.2 PROGRAM BENEFITS

Program benefits are determined by multiplying the annual program energy and demand savings by the annual avoided costs for energy and demand, over the useful life of the program, and taking the net present value of the sum. The avoided costs used in the UCT model are provided in Appendix A.

3.3.3 PROGRAM COSTS

Tables 3-1 and 3-2 show the estimated annual costs to implement the 2018 Plan programs (for 12 months of implementation). The total 2018 Plan budget amount of $25,097,573 for calendar year 2018 is based on 3.0% of projected 2018 revenues adjusted for an under-collection of program costs in 2016 (see Section 4.3 below).

Likewise, the $28,164,548 budget for 2019 is based on 3% of projected revenue for 2019. Costs are presented in five categories which are described in detail following the table.

Table 3-1

2018 Program	Admin	Third Party	Rebates	Promotion	M&V	Total
Commercial Comp.	$ 472,170	$ 2,744,969	$ 5,019,865	$ 216,557	$ 206,782	$ 8,660,343
Residential Comp.	$ 273,233	$ 2,190,007	$ 2,144,709	$ 281,315	$ 118,704	$ 5,007,968
Residential Lighting	$ 173,525	$ 624,680	$ 2,200,190	$ 85,911	$ 75,993	$ 3,160,298
PNM Home Works	$ 29,950	$ 220,255	$ 285,000	$ 13,102	$ -	$ 548,308
New Home Const.	$ 42,847	$ 202,000	$ 500,000	$ 18,744	$ -	$ 763,591
Energy Smart (MFA)	$ 12,825	$ 18,748	$ 187,477	$ -	$ -	$ 219,050
Easy Savings Kit	$ 21,422	$ 162,706	$ 186,000	$ 21,461	$ 9,382	$ 400,971
Power Saver	$ 121,175	$ 2,722,425	$ 1,350,000	$ -	$ 100,454	$ 4,294,054
Peak Saver	$ 41,511	$ 785,623	$ 600,000	$ -	$ 34,413	$ 1,461,547
Market Transf.	$ 34,042	$ 297,402	$ -	$ 250,000	$ -	$ 581,444
TOTALS	**$ 1,222,700**	**$ 9,968,815**	**$12,473,241**	**$ 887,090**	**$ 545,727**	**$ 25,097,573**

Table 3-2

2019 Program	Admin	Third Party	Rebates	Promotion	M&V	Total
Commercial Comp.	$ 499,774	$ 3,018,679	$ 5,795,604	$ 167,347	$ 222,729	$ 9,704,133
Residential Comp.	$ 288,971	$ 2,338,136	$ 2,548,530	$ 340,979	$ 128,783	$ 5,645,399
Residential Lighting	$ 185,679	$ 656,197	$ 2,444,655	$ 208,458	$ 82,749	$ 3,577,738
PNM Home Works	$ 29,651	$ 221,729	$ 315,000	$ 9,335	$ -	$ 575,715
New Home Const.	$ 40,929	$ 207,050	$ 512,500	$ 12,886	$ -	$ 773,365
Energy Smart (MFA)	$ 12,765	$ 20,023	$ 200,227	$ 4,019	$ -	$ 237,034
Easy Savings Kit	$ 20,930	$ 170,578	$ 195,000	$ 19,265	$ 9,328	$ 415,101
Power Saver	$ 125,476	$ 3,024,916	$ 1,500,000	$ 39,504	$ 107,880	$ 4,797,776
Peak Saver	$ 46,423	$ 942,748	$ 720,000	$ 14,616	$ 39,913	$ 1,763,700
Market Transf.	$ 35,782	$ 327,538	$ -	$ 311,266	$ -	$ 674,586
TOTALS	**$ 1,286,381**	**$10,927,594**	**$14,231,517**	**$ 1,127,675**	**$ 591,382**	**$ 28,164,548**

THIRD PARTY IMPLEMENTATION

PNM is the administrator for its entire portfolio of EE and LM programs, but has engaged third-party contractors with proven expertise to implement the programs because of the many advantages that this approach provides, including:

- *Selecting contractors through a request-for-proposal (RFP) process allows PNM to determine the most qualified contractor and best proposal for program implementation.*
- *Proven expertise and experience in delivering similar programs by the selected contractor reduces the risk associated with implementing a program and achieving participation and savings goals.*
- *Program scale can be adjusted up or down quickly through the use of contractor personnel.*

- *Contracts can be designed to limit PNM and customer risk by including provisions to pay for performance achieved.*

Third-party implementation costs are the costs paid by PNM to the third-party contractors. These costs can include contractor labor, development of promotional material, marketing, customer outreach, development of program processes and customer enrollment procedures, trade ally recruitment and other program specific costs. Table 3-3 lists each program and the contractor responsible for implementation.

Table 3-3

Program	Primary Implementer	Program Type			
		Commercial	Residential	Low Income	Load Management
Commercial Comprehensive	DNV-GL	X			
Comm. Comp. - Multifamily	TRC	X	X	X	
Res. Comp. - Refrigerator Recycling	ARCA	X	X		
Res. Comp. - Energy Checkup	ICF		X	X	
Res. Comp. - Cooling	CLEAResult		X		
Residential Lighting	CLEAResult		X		
New Home Construction	ICF	X	X		
PNM Home Works	NEF		X	X	
Energy Smart (MFA)	MFA			X	
Easy Savings Kit	RAP			X	
Power Saver	Comverge	X	X		X
Peak Saver	Enbala	X			X
Market Transformation	PNM	X	X	X	X

CUSTOMER INCENTIVES (REBATES)

One of the barriers to energy efficiency deployment is that although high efficiency options are cost-effective on a life-cycle basis, initial costs may be higher than they are for less efficient options. Customer incentives or rebates are designed to help overcome this barrier. Rebates provided in the 2018 Plan are designed to provide between 25% and 50% of the incremental cost of purchasing the energy efficiency measure over the standard non-energy efficient option. This range is typical of EE programs offered in the industry. Exceptions to this are the programs that target low-income customers and other hard-to-reach customer segments, such as small-business customers. The low-income programs are offered at no cost to income-qualified participants, and the small-business component of the Commercial Comprehensive program provides higher incentives in order to encourage greater participation. In addition to using the general guideline of 25% to 50% of incremental cost, rebate amounts are set for each measure in a program based on a market assessment of what it will take to achieve the participation targets for the program. For some programs, such as the Home Energy Checkup component of the Residential Comprehensive program, the rebates are determined in part on past participation rates at a given rebate level and the need to increase participation.

INTERNAL ADMINISTRATION

The primary internal administrative cost is the labor associated with program management and administration, including program development, tracking, reporting and the time needed to oversee and interact with third-party contractors and stakeholders. Additional costs include incidental costs, such as travel and membership fees for energy efficiency organizations. Internal administrative costs are proportionally allocated to the energy efficiency programs based on the direct costs associated with each program with some adjustments for known dedicated costs. Direct costs are the costs specific to individual programs such as third-party costs, rebates and promotional costs. Administrative costs represent less than five percent of the total 2018 Plan costs.

MEASUREMENT AND VERIFICATION

The budget for independent M&V of the programs is estimated to be about 2% of the total program budget, based on the current contract approved by the NMPRC. A new statewide M&V evaluator may be used in calendar year 2018; however, the budget is expected to remain at approximately 2% of the total program budget. The EE portfolio M&V is discussed in more detail in Section 4.4.

3.4 PROMOTION

Effective promotion and marketing are critical to the success of the EE programs. PNM oversees planning for program marketing across its EE portfolio, and continuously monitors each program's promotional plans. The day-to-day management of marketing depends on each program's needs. Where third-party contractors are responsible for marketing the programs they administer, their promotional costs are recorded in the third-party expense category. In some cases, where contractors do not have needed marketing capabilities, PNM directly manages marketing for programs. PNM also produces its own marketing materials to use in a variety of customer outreach channels where appropriate. These marketing channels include program marketing materials (such as case studies, bill inserts or brochures), direct mail, outreach events (including events focusing on low-income customers), customer communications with call center staff, the PNM website, social media, digital advertising, outdoor advertising, and television and radio commercials.

TRADE ALLY NETWORK

In 2018, over 500 businesses, or trade allies, will actively participate in PNM's EE programs by delivering program services and incentives to customers (see Appendix D for a list of current EE trade ally businesses). By consolidating an umbrella trade ally network across all of its EE programs, PNM is able to support the many businesses that drive energy efficiency implementation in its service area. The trade ally network offers services and incentives in addition to those already offered by third party program implementation contractors, including market research, public recognition and sales training. Other utilities have shown that such efforts result in increased trade ally engagement with programs and improved program outcomes, including increased customer participation and energy savings.

CUSTOMER ANALYTICS

The customer analytics initiative improves the effectiveness of PNM's energy efficiency programs and helps PNM stay on track to meet its EUEA 2020 compliance goal, by using better knowledge of customers to achieve

cost-effective direct outreach and messaging. The process integrates databases used at PNM with publicly available data to produce insights and communication strategies to better target and recruit more participants to the EE and LM programs, achieve greater engagement and savings per participant, and lead to higher customer satisfaction. Existing data is being compiled from several areas within PNM, including prior energy efficiency program participation, electric usage history, geo-coded parcel data, and participation in other PNM programs, such as customer-sited solar, budget billing, etc. PNM has purchased a modest amount of publicly available data, including assessors' data, and over time will supplement it as appropriate to support direct marketing activities.

HOME ENERGY ADVISOR AND BUSINESS ENERGY ADVISOR

PNM has contracted with EnergySavvy to offer two web-based online assessment surveys, the Home Energy Advisor and the Business Energy Advisor. These user-friendly surveys allow customers to quickly analyze the potential for energy saving opportunities in their homes and commercial buildings, and also promote other PNM EE program offerings. In 2016, PNM added an optional paper version of the Home Energy Advisor in both English and Spanish, to be offered to customers at community events and through other channels. If customers take a paper version, they can mail the completed survey to a fulfillment house, which returns an assessment report to them by mail. PNM has also created an option for residential customers completing the Home Energy Advisor survey to receive rebates for energy efficient appliances upon meeting certain eligibility requirements, which were previously only available to customers completing the onsite Home Energy Checkup in person.

4 2018 PROGRAM PLAN SUMMARY

4.1 SUMMARY TABLES

The tables in this section present the key performance measures and assumptions for each program in the 2018 Plan. Table 4-1 shows the customer participation and unit targets forecasted for each program.

Table 4-1

Program	Unit Type	2018	2019
Comm. Comp. - Retrofit/NC	Participant	325	345
Comm. Comp. - QuickSaver	Participant	285	300
Comm. Comp - Build. Tune Up	Participant	125	125
Comm. Comp - Midstream	Unit	100	150
Comm. Comp - Multifamily	Participant	20	24
Res. Comp. - Refrigerator Recycling	Unit	8,000	8,500
Res. Comp. - Energy Checkup	Participant	1,100	1,300
Res. Comp. - Low Income Checkup	Participant	750	750
Res. Comp. - Cooling	Unit	4,150	4,450
Residential Lighting	Unit	900,000	1,000,000
PNM Home Works	Participant	9,500	10,500
New Home Construction	Participant	1,000	1,025
Energy Smart (MFA)	Participant	230	230
Easy Savings Kit	Participant	6,200	6,500
Power Saver	Unit	46,350	51,500
Peak Saver	Participant	110	110

Table 4-2 shows the effective useful life (EUL), energy and demand savings and average rebate cost per unit for each program.

Table 4-2

Program	EUL	Per Unit Net kWh Savings	Per Unit Net kW Savings	Average Rebate Per Unit
Comm. Comp. - Retrofit/NC	11.0	77,274	11.825	$7,916
Comm. Comp. - QuickSaver	12.0	27,904	2.418	$4,885
Comm. Comp - Bldg Tune-Up	10.0	5,046	2.784	$2,586
Comm. Comp - Build. Tune Up	15.0	18,720	5.440	$2,900
Comm. Comp - Multifamily	9.0	67,200	10.080	$15,000
Res. Comp. - Refrigerator Recycling	5.0	734	0.169	$50
Res. Comp. - Energy Checkup	15.0	647	0.139	$151
Res. Comp. - Low Income Checkup	17.0	933	0.093	$401
Res. Comp. - Cooling	15.0	673	0.544	$287
Residential Lighting	14.0	18	0.002	$2
PNM Home Works	10.0	205	0.010	$30
New Home Construction	17.0	840	0.301	$500
Energy Smart (MFA)	17.1	123	0.013	$66
Easy Savings Kit	10.0	333	0.036	$30

Tables 4-3 and 4-4 show the net present value (NPV) of program costs, the NPV of program benefits and the ratio of benefits to costs which is the UCT for each program. NPV Costs are different from program budgets because they are discounted for the time value of money. Additional detail on the UCT calculations for each program is in Appendix E.

Table 4-3

2018 Program	NPV Costs	NPV Benefits	2018 UCT
Commercial Comprehensive	$ 8,040,426	$ 17,038,181	2.12
Residential Comprehensive	$ 4,649,492	$ 6,413,841	1.38
Residential Lighting	$ 2,934,080	$ 8,755,051	2.98
PNM Home Works	$ 509,059	$ 677,888	1.33
New Home Construction	$ 708,932	$ 794,707	1.12
Energy Smart (MFA)	$ 203,370	$ 242,015	1.19
Easy Savings Kit	$ 372,269	$ 928,464	2.49
Power Saver	$ 3,930,429	$ 4,443,395	1.13
Peak Saver	$ 1,447,315	$ 1,637,572	1.13
Market Transformation	$ 539,823	$ -	n/a
TOTAL	**$ 23,335,196**	**$ 40,931,114**	**1.75**

Table 4-4

2019 Program	NPV Costs	NPV Benefits	2019 UCT
Commercial Comprehensive	$ 9,009,501	$ 19,393,382	2.15
Residential Comprehensive	$ 5,241,296	$ 7,180,915	1.37
Residential Lighting	$ 3,321,640	$ 10,042,898	3.02
PNM Home Works	$ 534,504	$ 785,881	1.47
New Home Construction	$ 718,007	$ 829,515	1.16
Energy Smart (MFA)	$ 220,066	$ 263,001	1.20
Easy Savings Kit	$ 385,388	$ 1,014,275	2.63
Power Saver	$ 3,930,429	$ 4,443,395	1.13
Peak Saver	$ 1,447,315	$ 1,637,572	1.13
Market Transformation	$ 626,299	$ -	n/a
TOTAL	**$ 25,434,444**	**$ 45,590,833**	**1.79**

4.2 NON-ENERGY BENEFITS

4.2.1 ECONOMIC BENEFITS

The PNM Energy Efficiency Program has a positive economic impact on New Mexico through the creation of new jobs associated with delivering efficiency products, services and incentives to customers. As determined by the independent M&V evaluation of the programs, most projects would not have been completed without the program incentives. For every dollar spent in EE programs, a portion of it remains within the state as wages and payment for local equipment and services. As this money gets re-spent within the state, it increases its overall benefit through a multiplier effect. The incentive levels in the 2018 Plan are designed to cover between 25% and 50% of the incremental cost of performing retrofits and encourage investments that would otherwise not be made. Although PNM is not aware of specific studies that quantify additional economic benefits due to funding energy efficiency improvements in New Mexico, one conservative approach to estimating the increased investment caused by the rebate payments would be to assume that the rebates cause spending on retrofits valued at twice the rebate level, assuming the rebates cover about half of the incremental cost. Based on the estimated customer incentives of about $13,000,000 this would result in about $26,000,000 in investment in energy efficiency improvements that would otherwise not have been made.

The number of direct jobs created by the existing PNM Energy Efficiency Program is shown in Table 4-5. These jobs are full-time positions created by the third-party contractors to implement the programs. The Commercial Comprehensive program, for example, directly employs eight people. In addition to the jobs shown in Table 4-5 many additional jobs are being supported in the trade ally and contractor community to install the measures

associated with PNM's EE programs. According to a national study completed in late 2016, there are about 6,700 energy efficiency-related jobs in PNM's service area.[9]

Table 4-5

Program	Direct Energy Efficiency Jobs
Commercial Comprehensive	8
Comm. Comp - Multifamily	1
Res. Comp. - Refrigerator Recycling	6
Res. Comp. - Energy Checkup	6
Res. Comp. - Cooling	2
New Home Construction	1
Residential Lighting	2
Energy Smart (MFA)	1
Power Saver	6
Peak Saver	1
TOTAL	**34**

4.2.2 EMISSIONS REDUCTIONS

The energy savings attributed to the proposed 2018 Plan, if approved and implemented, would result in significant reductions of various environmental emissions and in water needed for the generation of electricity. The CO_2 reduction is estimated to be about 44,000 metric tons per year in 2018 and 48,000 metric tons in 2019. The water reduction is estimated at about 23,000,000 gallons per year in 2018 and 25,000,000 gallons in 2019, assuming PNM average generation portfolio production values.

4.3 TARIFF RIDER AND CUSTOMER BILL IMPACT

PNM Rate Rider No. 16 (Rider) recovers the program costs and approved profit incentive associated with the PNM's EE and LM programs. Beginning in January 2017, the program cost element of the Rider was set at 3.0 percent of bills and the profit incentive element was set at 0.206 percent[10]. PNM filed a reconciliation of 2016 program costs and profit incentive concurrently with the 2018 Plan on April 14, 2017. The reconciliation of 2016 program costs shows an under-collection in 2016 compared to actual 2016 program costs. The 2018 Plan budget has been adjusted to reflect the under-collected amount using the method prescribed in the Unopposed Stipulation in Case No. 16-00096-UT.[11] The reconciliation filing also includes a proposed adjustment to the Rider to account for under-collection of profit incentive costs in 2016. The Rider element for recovery of the 2018 Plan

[9] *Energy Efficiency Jobs in America*. Published by Environmental Entrepreneurs and E4 the Future. December 2016. http://e4thefuture.org/wp-content/uploads/2016/12/EnergyEfficiencyJobsInAmerica_FINAL.pdf

[10] Advice Notice 534, Effective January 27, 2017.

[11] The Unopposed Stipulation was approved by the Final Order issued on January 11, 2017.

program costs will be 3.0 percent of bills which is the same as the current program cost element, not including profit incentive elements.

4.4 MEASUREMENT AND VERIFICATION (M&V)

The Act requires that M&V be performed by an independent program evaluator that, pursuant to the Rule, is approved by the NMPRC. The independent evaluator prepares a report that documents the total portfolio and individual program-level expenditures, measured and verified savings, and cost-effectiveness of all the EE and LM programs plus self-direct programs. The report includes deemed savings assumptions and all other assumptions determined by the evaluator. Objectives of the M&V process include verifying that measures were installed and documentation matches rebate applications; and that measures are operating properly within program quality standards and expected to generate the predicted savings. In addition to providing measured and verified information regarding PNM's programs, the M&V report also provides guidance for how PNM can assess its own program metrics, and informs future program design and budget allocation decisions.

In 2016, the NMPRC issued a Request for Proposals to select a new statewide independent evaluator, and PNM participated in a consulting role in the selection. As of the filing date for this plan, a final selection has not been made by the NMPRC on an independent evaluator, but is anticipated in 2017, with a contract period that would run through 2019. PNM will work closely with the independent evaluator approved by the NMPRC for evaluation of the 2018 Plan programs.

4.5 REPORTING

PNM will make annual filings, currently required on March 1[12], each year that will provide program evaluation information, as required by 17.7.2.14 NMAC, and tariff rider collections. The filings will also include the M&V reports completed by the independent evaluator. Concurrently with filing the annual report, PNM will request any needed reconciliation of the tariff Rider to reflect actual participation levels and actual expenditures made in implementation of the programs. Annual reports are available through the PNM web site at: www.pnm.com/regulatory.

[12] For the 2018 EE filing, the PRC granted a variance so the deadline for Plan submission is April 14, 2017.

5 PROGRAM DESCRIPTIONS

Continuing programs and enhancements are described in the following sections:

- *5.1 – Commercial Programs*
- *5.2 – Residential Programs*
- *5.3 – Low-Income Programs*
- *5.4 – Load Management Programs*
- *5.5 – Market Transformation Program*

5.1 COMMERCIAL PROGRAMS

5.1.1 CONTINUING PROGRAMS – APPROVED IN CASE NO. 16-00096-UT

COMMERCIAL COMPREHENSIVE

The Commercial Comprehensive program is PNM's flagship program for non-residential customers. The program provides incentives for the retrofit or installation of both prescriptive and non-prescriptive measures that decrease demand and save energy. The program is designed to be a "one-stop-shop" for commercial customers interested in improving the efficiency of their existing or planned new facilities. Examples of measures include a prescriptive list of lighting upgrades, building controls, compressed air and fan systems, and HVAC and refrigeration upgrades, as well as incentives for custom measures. This program also includes a new construction option that offers incentives for buildings constructed to exceed local building code energy requirements and special incentives for small businesses. In addition, the program offers training programs and on-site audits.

One important aspect of the Commercial Comprehensive program is its reliance on the participation of local energy efficiency vendors, suppliers and contractors who install the energy saving equipment. These businesses are critical "trade allies" and the program would not be successful without their enthusiastic support. PNM conducts several training sessions each year for participating trade allies in which the program processes are reviewed and technical training is provided on new efficiency approaches.

The Commercial Comprehensive program is implemented for PNM by DNV-GL and TRC. PNM, in collaboration with DNV-GL and TRC, continuously monitors market conditions and changes in the status of commercial and industrial technologies in order to keep the list of eligible upgrades current and the rebates appropriate. For example, PNM regularly consults the DesignLights Consortium[13] web site to search for new energy efficient

[13] https://www.designlights.org/

lighting technologies that could be added to the program. The DesignLights Consortium is a non-profit membership organization that promotes quality, performance and energy efficient commercial sector lighting solutions.

The Commercial Comprehensive program has six components: Retrofit Rebates, New Construction, Building Tune-Up, Distributor Discount, Multifamily and PNM QuickSaver™ for small business customers. Each of these is described in detail below. Complete program details, including the customer application and a list of all rebates, is available on the PNM web site.[14]

RETROFIT REBATES

The Retrofit Rebate is the largest component of the Commercial Comprehensive program in terms of total savings. The Retrofit Rebate component offers two options for a PNM business customer: 1) a pre-set menu of rebates for installing qualifying equipment in new and existing buildings; and 2) custom rebates for reducing energy use with a system improvement that is not included on the pre-set menu. Custom rebates are based on the estimated first-year energy savings. Complete program details including a list of all rebates are available on the PNM web site.[15]

NEW CONSTRUCTION

Customers that build new facilities or make major renovations of existing buildings can receive an incentive if they install equipment or systems that result in surpassing existing building code requirements and save additional energy. Savings are determined by following American Society of Heating, Refrigerating and Air-Conditioning Engineers' (ASHRAE) 90.1-2007 Appendix G standards and must be validated using a standard modeling tool, such as DOE-2, BLAST, EnergyPlus or eQUEST, capable of hourly calculations and modeling multiple thermal zones. The tool used must be approved by PNM staff.

The whole-building New Construction component provides an incentive based on the amount of annual energy saved due to constructing the building to standards at least 10% better than local building code, which is currently the ASHRAE 90.1 2007 standard. There are two levels of incentives available based on the following conditions:

- Surpass ASHRAE 90.1 2007 on a new building by 10 percent and receive an incentive based on first-year kilowatt-hours saved.
- Surpass ASHRAE 90.1 2007 on a new building by 20 percent and receive a higher incentive based on first-year kilowatt-hours saved.

[14] http://www.pnmenergyefficiency.com/Projects/Default.aspx?tabid=909 : http://pnmmultifamily.com/

[15] https://www.pnmenergyefficiency.com/Projects/Default.aspx?tabid=908

BUILDING TUNE-UP

Building tune-up refers to the process of bringing a building's mechanical and electrical systems, including building controls, to peak performance. Existing systems are analyzed, parameters are adjusted and equipment repaired as necessary. Low-cost operational improvements that deliver high energy savings are also identified. For more complex systems, a building analysis may be performed. In return for the building analysis, the customer is required to install all identified energy efficient measures that have a two year payback or less and cost less than $5,000. After system improvements are identified and prior to any system modifications, a baseline of electricity consumption is estimated. PNM pays a rebate based on the 1-year annualized rate of energy savings. For more complicated buildings, the program also provides a rebate for a portion of the study expenses.

The Building Tune-Up component of the Commercial Comprehensive program differs from the Retrofit Rebate component in that the primary goal is to identify low-cost operational improvements that deliver energy savings. Existing mechanical and electrical systems and building controls will be adjusted, typically with minimum capital cost. To the extent a building tune-up incorporates prescriptive elements included in the Retrofit Rebate component, the customer will generally receive rebates through the Retrofit Rebate component.

WHOLE BUILDING ENERGY CONSUMPTION DATA ACCESS

As part of an energy benchmarking initiative under the Building Tune-up Program in 2017, PNM proposed to support building owners who want to analyze the electricity consumption of whole buildings. In this filing, PNM is proposing a policy to support the benchmarking initiative with a mechanism to provide whole building electricity consumption data to building owners in such a way as to reduce the administrative burden to building owners while still protecting the privacy of all customers. This policy is needed to provide clarity and to overcome the difficulty in acquiring consent from a large number of building tenants.

The proposed data access policy is as follows: Upon the written or electronic request and authorization of a building owner, and subject to parameters specified below, PNM will provide the building owner with at least 12 consecutive months of energy consumption data for the specified building in its entirety, including consumption data derived from readings of separate utility-grade meters that measure energy consumption in tenant-occupied spaces.

PNM may provide data in a form that aggregates energy consumption data from tenant meters. Aggregated data shall be provided to the building owner without prior consent from tenants, provided that the data:

- Does not contain the individual identities of tenants or other personally identifying information;
- Does not contain additional customer-specific billing data; and

- Otherwise provides adequate protections for the security of the information and the privacy of the owner and tenants.[16]

PNM will provide aggregated data without explicit authorization where there are at least four (4) tenant meters in an eligible building, and where no one meter accounts for more than 50 percent of the total annual kWh consumption for the whole building. Where these thresholds are not met and tenant authorization is needed, PNM will provide a standard electronic release form for tenants to authorize release of their consumption data to the building owner or the owner's agent.

DISTRIBUTOR (MIDSTREAM) INCENTIVES

In 2015, PNM expanded program outreach through "midstream" marketing for HVAC measures that are also available through the Retrofit Rebate component. Midstream refers to providing incentives at the distribution level rather than, or in addition to, the customer. As pointed out in a SWEEP report[17]; deeper market penetration of certain energy efficient products is possible if this approach is used. Without midstream incentives, distributors tend to stock basic equipment that is less expensive to install. Energy efficient alternatives are generally more expensive and must be "special ordered." Therefore, if a customer's piece of equipment fails and it must be replaced under time constraints, the energy efficient alternative is often not installed. Moreover, the midstream model allows for incentives to be paid to the counter sales staff. This further motivates sales staff to promote efficient equipment. Also, midstream incentives show the point-of-sale discount on the quotation or invoice which will further motivate contractors and customers to select the energy efficient choice. The current list of equipment included in Distributor Incentives is based on an assessment of technologies that are not readily available or stocked in the high efficiency option. The program currently provides incentives for HVAC equipment and vending machine controls. Additional items will be considered for 2018 based on market conditions. The program will also work to recruit additional distributors throughout PNM's service area.

MULTIFAMILY

The Multifamily program targets a unique and hard-to-reach customer segment. The target audience consists of owners of multifamily (apartment) dwellings, who are eligible to receive rebates and direct-install measures for energy efficiency upgrades in common areas and residential housing units. For the purpose of this program, PNM defines multifamily dwellings as those that include five of more residential housing units. The goal is to offer a program that is streamlined and offers a simple approach to participation, and that will make their buildings more energy efficient. Making recommended, cost-effective energy efficiency upgrades, including lighting retrofits, appliance upgrades, and direct installation of smaller measures, is a good investment for the

[16] Excerpt from: *Benchmarking and Disclosure: State and Local Policy Design Guide and Sample Policy Language*. State & Local Energy Efficiency Action Network. May 2012.
https://www4.eere.energy.gov/seeaction/system/files/documents/commercialbuildings_benchmarking_policy.pdf

[17] Upstream Utility Incentive Programs: Experience and Lessons Learned, Maureen Quaid and Howard Geller, May 2014, http://swenergy.org/publications/documents/Upstream_Utility_Incentive_Programs_05-2014.pdf

property owner and will also benefit tenants and property owners with lower utility bills, increased comfort, and improved security. The program is administered by TRC, a third-party implementer. TRC manages all components of the program, including marketing, outreach, and rebate processing. A central part of the program delivery includes utilizing a primary point of contact or liaison either employed by or contracted with the implementer to assist the property manager throughout the entire project.

The program has special incentives available to multifamily participants with a majority of low-income tenants. The low income component requires that 66% of units are occupied by low income tenants and that those tenants are at or below 200% of the federal poverty level. These properties are typically operated by a recognized low-income housing provider including, but not limited to, government entities, nonprofit agencies, and private-market Section 8 providers.

Energy savings are achieved through both prescriptive and custom measures. Projects that include custom measures that are not included in the prescriptive list can receive rebates provided that building system analysis shows them to be cost-effective. The program will soon add new construction to the performance incentive path for multifamily properties that include up to three floors, in addition to, trade ally performance incentives to encourage contractor engagement, deeper achieved energy savings, and for quality assurance purposes. PNM will continuously monitor participation in the program and make modifications to the measure list and rebate amounts as needed to achieve participation and budget goals. Complete program details including a list of all rebates are available on the PNM Multifamily web site.[18]

PNM QUICKSAVER

The PNM QuickSaver component provides special incentives for PNM small-business customers who are considered a hard-to-reach segment because of their limited access to capital and other barriers to participation. Participation steadily increased in past years and has been leveling off the last two years. In 2015, the upper threshold for eligibility in QuickSaver was increased from business accounts with peak demand of 100 kW to those with 150 kW. In 2016, PNM increased the limit to 200 kW to reach even more small business customers. Qualifying businesses contact an approved PNM QuickSaver contractor to schedule an energy efficiency evaluation. The PNM QuickSaver-approved contractor then provides an on-site evaluation and a written proposal for the energy efficiency equipment upgrades for which the facility qualifies. Using this information, a contract between the customer and the contractor is drafted with the costs and final project completion payment clearly defined. The contractor handles all of the project paperwork. PNM QuickSaver covers on average about 65% of the project cost, which makes improved efficiency more affordable and attractive to the hard-to-reach small business customer. PNM pays the rebate to the contractor, and for many

[18] https://pnmmultifamily.com/

projects, utility savings will pay back out-of-pocket costs incurred by the business participant in less than one year.

Fewer energy savings measures are available under the QuickSaver component as compared to the Retrofit or New Construction components. QuickSaver focuses on measures that are the most common and cost-effective measures for the typical small business such as refrigeration components, lighting fixtures and lamps, and lighting control upgrades. These measures are also ones that can be installed quickly and provide immediate electric cost savings to participating small business owners. Many of the retrofits that have been done have focused on lighting, but contractors are also promoting more refrigeration and controls retrofits. In addition, PNM's third party contractor is providing analytics to support targeted marketing of the program to increase participation and engagement of eligible customers.

REFRIGERATOR RECYCLING

The Refrigerator Recycling program is primarily a residential program but is also available to commercial customers. Please see the residential Refrigerator Recycling program description for more detail.

SELF-DIRECT

This program allows large customers (with energy usage greater than 7 million kWh per year) to receive credits for qualifying incremental expenditures made towards energy efficiency measures at the customers' facilities. Credits for approved self-direct programs may be used to offset up to seventy percent of the energy efficiency tariff Rider until the credit is exhausted. Qualifying customers apply for the credit through submitting a proposed EE project they intend to implement at their facility. The PNM Self-Direct program manager reviews the application. If the project meets the program requirements the application is approved and the customer's electric bill is credited. Projects must not utilize funding from any other PNM EE program in order to be eligible.

5.2 RESIDENTIAL PROGRAMS

5.2.1 CONTINUING PROGRAMS – APPROVED IN CASE NO. 16-00096-UT

RESIDENTIAL COMPREHENSIVE

The Residential Comprehensive program is the primary incentive program for residential customers. The program has three components; Home Energy Checkup (including a low-income option), Residential Cooling and Pool Pumps, and Refrigerator Recycling. All of these programs provide energy efficiency options for customers' homes and have similar offers and benefits. For example, cooling options are available through Home Energy Checkup and Residential Cooling and customers recycling their refrigerators may also wish to take advantage of rebates on new appliances. PNM will continue to monitor the market for efficient appliances and HVAC equipment and make additions and modifications to the rebates to reflect market conditions and achieve

budget and savings targets. Complete program details including customer applications and a list of all rebates is available on the PNM web site[19].

HOME ENERGY CHECKUP

Home Energy Checkup, managed by ICF International, is a program component in which PNM residential customers, including low-income customers, can participate and save money and energy by choosing one of several rebate packages tailored to meet their needs. The Home Energy Checkup applies a one-stop-shop approach that includes a walk-through assessment and informative discussion between the program participant and 'energy ambassador' explaining the assessment results, while also providing additional educational materials including conservation tips and information about other incentive programs available to participants. Once the assessment has been completed and the results and educational materials have been presented, the ambassador installs applicable energy efficiency measures, which are available in three different individually priced direct installation packages. Each package contains a varied mix of the following measures: a low-flow showerhead, faucet aerator, LEDs, smart power strips, and AC diagnostic performance testing. Other low-cost measures may also be introduced if they are cost-effective, can be delivered within the program budget and help achieve the program savings goals.

The customer pays a small fee for the initial assessment and report depending on which option they select. The fee may be adjusted in response to program participation and is waived for income qualified customers. Low income customers may also qualify to receive an ENERGY STAR refrigerator to replace an older, inefficient model. As described in specific detail below, rebates are also provided for the purchase of ENERGY STAR appliances, Smart thermostats, ECM Motors, replacement of existing and working HVAC units with more efficient units and adding insulation for homes with refrigerated air-conditioning. The program identifies customers who may qualify for additional incentives on advanced evaporative cooling. ICF's duties include recruitment and training of contractors, energy ambassadors and retailers (trade allies), rebate fulfillment, marketing and advertising, data tracking, reporting, and quality assurance.

For income-qualified participants, the home assessor determines if the home's primary refrigerator is eligible for replacement. To be eligible, participants must have incomes relative to family size at or below 200% of the federal poverty level. A program participant's refrigerator must meet the following criteria to be eligible for replacement:

- Be in working condition;
- Be the primary refrigerator used in the home;
- Be at least 14 cubic feet to qualify for replacement;
- Be at least ten years old, or
- Consumption must be at least twice that of the efficient model being installed, or
- Have an observed physical condition causing excessive consumption such as a poor door seal and an inability to cool consistently

[19] https://www.pnm.com/rebates-and-discounts

To encourage even greater energy and cost savings, participants also receive tailored combinations of rebate applications for ENERGY STAR qualified appliances, HVAC replacement to higher efficiency equipment and high efficiency evaporative cooling equipment as applicable. Appliances and HVAC equipment that qualify for rebates currently include the following:

- *Standard size refrigerator*
- *Clothes washer*
- *Dryer*
- *Air Purifier*
- *Insulation rebates*
- *Dishwasher*
- *Smart Thermostat*
- *ECM Motors*
- *Air conditioning tune-up*
- *Advanced evaporative cooling*
- *HVAC Early Replacement*
- *HVAC Replacement with CEE Tier I*
- *HVAC Replacement with CEE Tier 2*
- *HVAC Replacement with CEE Tier 3*
- *Window AC Unit*

PNM will continue to evaluate the market for high-efficiency appliances and other efficient measures that could be included as rebate options, provided they are cost-effective and can be provided within the program budget.

RESIDENTIAL COOLING AND POOL PUMPS

The Residential Cooling and Pool Pump component offers PNM residential customers cost and energy savings during the summer months by offering incentives for efficient cooling and pool pump equipment. Evaporative cooling is an effective means of providing cooling for homes in this climate. New evaporative technologies have improved the effectiveness of cooling when compared to traditional thin-pad style evaporative cooling units, also referred to as swamp coolers.

High efficiency refrigerated air conditioning options are also part of the Residential Cooling program. Customers who purchase new or replacement refrigerated air conditioners are offered incentives for purchasing unit(s) with higher efficiency standards than the minimum required by code. Window air conditioning units and pool pumps are other targets of this program. ENERGY STAR qualified refrigerated window units are available in the market, but have a higher cost than the less efficient models. Homes with swimming pools consistently have higher energy bills than homes without a pool, and homes with pools also tend to have the highest annual electricity consumption. Pools are much more efficient if they have a variable speed pump. The cooling and pool pump equipment that qualifies for rebates include the following:

- *Advanced evaporative coolers*
- *Advanced evaporative cooler window units*

- *ENERGY STAR qualified window A/C units*
- *Refrigerated A/Cs listed as CEE tier 1*
- *Refrigerated A/Cs listed as CEE tier 2*
- *Refrigerated A/Cs listed as CEE tier 3*
- *High Efficiency Heat Pumps and Split Systems*
- *Variable speed pool pump with integrated controller*

Participants and contractors can find a complete list of all qualifying equipment by visiting the PNM website.[20]

REFRIGERATOR RECYCLING

The Refrigerator Recycling component is designed to encourage retirement of old or unnecessary second refrigerators and freezers. A refrigerator manufactured before 1995 can use up to three times more energy than a newer model. By retiring and not replacing an extra working unit, a PNM residential customer can save up to $175 a year in electricity costs. This program is also available to PNM business customers, although only residential size and type refrigerators and freezers are accepted. The program provides a rebate for each unit that is recycled. The rebate amount is currently $50 per refrigerator or freezer.

PNM has contracted with ARCA, Inc. to implement the program, which includes picking up old units and transporting them to the local recycling facility. Approximately 95% of each refrigerator or freezer is recycled. The unit must be in working condition and be between 10 and 27 cubic feet in size. There is a limit of two refrigerators and/or freezers per household, and more than two refrigerators and/or freezers for business customers with PNM program manager approval.

RESIDENTIAL LIGHTING

The Residential Lighting program provides incentives to PNM customers to replace incandescent light bulbs with primarily LED bulbs through instant, markdown discounts and coupons at participating retailers in the PNM service territory. A list of retailers that offer discounts is available at https://www.pnm.com/homelighting. The list of participating retailers is also shown in Appendix D. The primary focus of the 2018 Plan program will be the promotion of LEDs; however, there will continue to be a market for a small number of CFLs in certain situations. LEDs are expected to be nearly 100% of the program in 2018. LEDs use 75% less electricity than traditional incandescent bulbs. An LED can last up to 20 times longer than a traditional incandescent. An LED placed in a frequently used lamp can save about $35 or more over the lifetime of the bulb.

The residential lighting market has been undergoing transformative change over the last few years and change is expected to continue as LEDs become more affordable and new halogen incandescent bulbs continue to claim market share. The Energy Independence and Security Act of 2007 (EISA) prescribed minimum efficacy standards (lumens per watt) for regular duty light bulbs and required the phase-out of inefficient lighting technologies beginning in 2012 with the elimination of the 100 watt (W) incandescent bulb and then the 75W, 60W and 40W

[20] https://www.pnm.com/rebates-and-discounts

bulbs, respectively, in subsequent years; although certain specialty bulbs are exempt, including candelabra bulbs, reflectors, and three-way bulbs.

Despite the major lighting market change driven by EISA, there will be a continued need for LED promotions. Customers are now faced with a choice between more lighting options at the point of purchase, including new technologies such as the EISA-compliant halogen (EC-halogen) bulbs, which retain the look of traditional incandescent bulbs, but use less energy. In fact, according to recent lighting technology shipment information,[21] EC-halogen bulbs account for more than 50% of the market. However, an EC-halogen equivalent to a 100W incandescent uses 73W, while an equivalent LED uses only 18-23W. Consequently, there are still significant energy savings to be achieved by using and promoting LEDs. Although overall savings from LED programs are lower than before EISA as new baselines were established, lighting is still one of the most cost-effective residential energy efficiency program options.

The participation goal of the Residential Lighting program is to encourage the purchase of about 900,000 LED bulbs in 2018. PNM will continue to monitor the sales of various types of high efficiency bulbs. Independent M&V will determine impacts on the free-rider rates or net energy savings and PNM will make modifications over time as indicated. PNM will also continue to monitor and research new lighting technologies and will investigate the possibility of offering additional incentives on other technologies in the future.

PNM HOME WORKS

PNM Home Works is an energy savings and education program that combines energy efficiency curriculum for teachers with easy-to-install energy efficiency and water-saving measures for students to install at home with their parents. The program has two main goals: energy savings and market transformation through student education.

PNM contracted with National Energy Foundation (NEF) to implement this program which consists of general program oversight, student and teacher presentations, web design, kit production, warehousing and distribution, marketing, program tracking, data tabulation, and reporting. This program is designed to generate immediate and long-term savings by sending energy savings measures and interactive hands-on education home with motivated students. The 2018 Plan program will have two presentations and kits designed for 5th grade students and high school students. Each student will receive educational materials designed to build knowledge and demonstrate simple ways to save by changing habits in conjunction with easy-to-install measures. The teacher and student kit materials support state and national educational standards, which allow the program to easily fit into teachers' existing schedules and requirements. The total cost of providing the program, including all presentation time and materials is about $72 per kit.

The program begins with an interactive presentation at a school assembly or similar event teaching the importance of using water and energy efficiently, followed by hands-on, creative problem solving. Next,

[21] National Electrical Manufacturers Association, September 2016 http://www.nema.org/news/Pages/LED-A-Line-Lamp-Shipments-Decrease-in-Second-Quarter-of-2016-While-Still-Maintaining-Year-Over-Year-Growth.aspx

participating students take home an activity kit that includes high efficiency measures. With the help of their parents, the students install the measures at home and complete a home survey. The high school presentation includes a special emphasis on sustainability and on the unique energy usage footprint of a high school-aged student in the home and the kit will contain a smart power strip. The NEF staff tabulates all the responses, including home survey information, teacher responses, student input and parent responses, and generates a program summary report. By installing and monitoring the efficient measures at home and discussing the importance of energy efficiency, students are able to reinforce what they have learned through measurable water, energy and monetary savings. PNM will target approximately 7,000 5th grade students and 2,500 high school students each year across the service territory.

The educational and energy awareness training is a crucial part of the PNM Home Works program but is not directly linked to specific energy savings. Rather, the education builds awareness of the importance of energy efficiency in general and supports the goals of the 2018 Plan in general. Therefore, PNM funds the general energy efficiency educational materials and presentations activities of the program, about 30% of the program cost, through the Market Transformation (MT) program, which is described in the MT section of the 2018 Plan below.

NEW HOME CONSTRUCTION

In 2017, PNM relaunched a hybrid version of the former ENERGY STAR New Homes program that has proven successful in similar utility programs[22]. The target audience consists of custom, semi-custom, and production home builders and also includes consumers, realtors, trade allies, raters, developers and architects. The goal is to offer a streamlined program that offers participants incentives for highly efficient new single-family residential construction through either a prescriptive or a performance path.

ICF International is the third party implementer managing this turnkey program which includes marketing and outreach, builder and HERS rater outreach and training, quality assurance, data tracking and reporting, and rebate processing. PNM is collaborating and cost-sharing with the New Mexico Gas Company (NMGC) on this program for an even more robust program offering to home builders.

The combined prescriptive and performance program approach is less stringent than the previous ENERGY STAR only approach because it offers a performance path approach for homes exceeding the IECC 2009 building code while continuing to encourage home builders to participate in ENERGY STAR®, Zero Energy Ready Homes (ZERH) and Build Green NM initiatives. The performance incentive path is not cost effective in the Santa Fe homebuilder market due to current Santa Fe building codes, however, Santa Fe builders will be able to take advantage of the prescriptive rebates offered in this program.

The proposed 2018 participation goal is 1,000 homes, which assumes 70% of builders will choose the performance path and 30% will choose prescriptive. Home builders who choose the prescriptive path are not

[22] PNM administered a new homes program from 2010-14. The program was discontinued because it was not cost-effective under the total resource cost test in effect during those years.

required to use a HERS rater, but program staff will perform random installation verification of homes for quality assurance purposes.

The average savings per newly constructed home is approximately 1,284 kWh. Energy savings will be achieved through either the prescriptive or performance incentive paths. The initial prescriptive incentive path as listed below requires that home builders install at least two measures to qualify. PNM will monitor market conditions and will adjust the incentive amounts as needed to meet program performance goals while maintaining cost-effectiveness of the program.

Table 5-1

Measure	Rebate	
New-SEER 16 - from - SEER 14	$71 per ton	
New-SEER 17 - from - SEER 14	$100 per ton	
New-SEER 18 - from - SEER 14	$129 per ton	
New-80%+ CFL - from - 50% CFL New-70%+ LED - from - 50% CFL	$1.11 per bulb $2.22 per bulb	
New-WH EF - 0.945 - from - HPWH EF -2	$300 per unit	
New-Radiant Barrier - from - None (100% Cover)	$50 per home	
New-ES Refrigerator - from - Standard Appliance	$15 per unit	
New-Attic Insulation R-48 - from - Attic Insulation R-38 (AC with Gas Furnace)	$0.06 per sq.ft.	
New-90% LED Lighting; ES Refrigerator; R46 Insulation; 16 SEER AC (2 ton unit) - from - Code Compliant Building	$400 per home	

Under the performance incentive path home builders can choose to receive rebates for overall home performance upon verification by RESNET credentialed energy raters. The chart below describes the initial performance path incentive structure. Incentives may be adjusted in response to market and program conditions. Specific information about program options is available on PNM's website.[23]

Table 5-2

Base kWh Incentive	$0.15
15% - Performance Bonus	$175.00
20% - Performance Bonus	$250.00
30% - Performance Bonus	$600.00
Maximum Incentive (base + bonus)	$1,500.00
ENERGY STAR bonus	$100.00

[23] www.pnm.com/efficient-homes

MULTIFAMILY

The Multifamily program is described in detail in the previous Commercial section. It is included as a commercial program because the ultimate participant in the program is the property owner rather than the residents. However, the residents benefit directly from the program, especially if they have PNM electric accounts. Therefore, the Multifamily program benefits both commercial and residential customers.

5.3 LOW INCOME PROGRAMS

5.3.1 CONTINUING PROGRAMS – APPROVED IN CASE NO. 16-00096-UT

EASY SAVINGS KIT

The Easy Savings Kit program provides free LED lightbulbs, a showerhead, and educational materials on saving energy to low-income PNM customers. The program is implemented by Resource Action Programs, Inc. This program currently targets low-income PNM customers through direct mail. PNM may also distribute enrollment cards through various channels that serve the target population.

Customers who receive the enrollment postcard, either in the mail or through a participating community agency, can request the energy efficiency kit. Customers can order by mail, over the phone, or online at the program website printed on the enrollment card. This program is only available to customers who receive the opt-in card; therefore, PNM does not make a link to this website available from our main page.

ENERGY SMART – MFA

The Energy Smart program provides funding to the New Mexico Energy$mart weatherization program implemented by New Mexico Mortgage Finance Authority (MFA). The PNM funding is used by MFA to supplement federal and state funding they receive to administer the low-income weatherization program. In recent years, the program has focused on installation of CFL and LED bulbs and replacement of older refrigerators with ENERGY STAR qualified models. In 2017 the program was expanded to include a number of additional items for PNM customers who have electric space heating, electric water heating or refrigerated air-conditioning. The new options include: weatherization, attic insulation, duct sealing, pipe and tank insulation, low-flow showerheads and aerators. To be eligible, homeowners must have incomes relative to family size at or below 200% of the federal poverty level.

HOME ENERGY CHECKUP (LOW-INCOME)

This program is a component of the Home Energy Checkup program described in the Residential Programs section above. The program is the same as the Home Energy Checkup program except that the fee for the assessment is waived and a free replacement refrigerator is available through the program. Please see the complete description in the Residential Programs section above.

PNM HOME WORKS (LOW INCOME)

The PNM Home Works program is described in detail in the previous Residential section. Although it is not a low-income program specifically, because so many students are from low-income families, this program benefits many low-income PNM customers. PNM estimates that at least 40% of students are from families with annual income below 200% of the federal poverty level.

MULTIFAMILY (LOW INCOME)

The Multifamily program is described in detail in the previous Commercial section. Although it is not a low-income program specifically, because so many residents of multifamily properties qualify as low-income, this program benefits many low-income PNM customers. PNM estimates that more than half of the projects in the Multifamily program will be for low-income qualified properties.

5.4 LOAD MANAGEMENT PROGRAMS

CONTINUING PROGRAMS – APPROVED IN CASE NO. 16-00096-UT

The existing demand response programs, Peak Saver and Power Saver, have been implemented under 10-year third-party contracts that expire in 2017. PNM engaged in a strategic planning effort beginning in 2016 for its demand response programs, including assessment of potential enhancements and growth and administering a Request for Proposals (RFP) process. The RFP process resulted in selection of vendors to enhance the existing Peak Saver and Power Saver programs and manage implementation in 2018-2022. PNM is proposing to enter into new five year contracts for delivery of the load management programs. Please see Appendix C for a summary of the terms of the new contracts.

The load management programs provide PNM with a demand-side resource that can be used to meet peak demand requirements for up to 100 hours per year, June 1st through September 30th, 1pm to 8pm, Monday through Friday, excluding holidays and weekends. PNM has successfully dispatched the load management resource for peak reduction during each summer season beginning in 2008. Table 5-2 below lists the dates and times in which PNM utilized load management in 2016.

Table 5-3

Event Date	Start Time	End Time	Duration (Hr)
6/8/2016	2:00 PM	6:00 PM	4.0
6/9/2016	2:00 PM	6:00 PM	4.0
6/10/2016	2:00 PM	6:00 PM	4.0
6/15/2016	2:00 PM	6:00 PM	4.0
6/16/2016	2:00 PM	6:00 PM	4.0
6/20/2016	2:00 PM	6:00 PM	4.0
6/21/2016	2:00 PM	6:00 PM	4.0
7/27/2016	5:00 PM	6:00 PM	1.0
8 Events in 2016			**29.0**

PEAK SAVER

The PNM Peak Saver program targets non-essential electric loads that can be reduced during periods of peak system demand and is available to commercial and industrial customers with peak loads of 50 kW or greater. Participating customers receive an incentive based on their level of load reduction at the end of each control season.

PNM has selected a new third-party contractor, Enbala, to manage and market this program. Enbala is responsible for building and operating a direct load control system that provides PNM with the ability to achieve contracted load reductions through control of end-use equipment at participating businesses. Enbala responsibilities include marketing, installing load control equipment, data collection and analyses required for validating the contract capacity.

ENHANCEMENTS AND GROWTH

The Peak Saver program retains all of the same program elements that are currently available to customers with the addition of better energy usage and monitoring options for participants. Enbala has a strong technology offering that could be used in the future to help integrate distributed energy resources including: controllable load, batteries, distributed generation, smart inverters, and electric vehicles. Enbala employs their Symphony platform to aggregate resources. Enbala expects to automate as many participant sites as possible with their Symphony load monitoring and control system which provides easy access to participant energy usage data as well as automated load control during dispatch events. The Symphony system also allows for integrating a large number of smaller loads to make DR attractive to small and medium size customers. PNM and Enbala anticipate that these enhancements will result in the resource growing over time.

POWER SAVER

The PNM Power Saver program is the load management program for residential customers and small commercial customers who are not served under the Peak Saver program. This program cycles non-critical loads, such as refrigerated air conditioning units, on and off during summer peak hours. Participating customers receive a modest incentive at the end of each control season. PNM retained its third-party contractor, Comverge Alternative Energy Resources, Inc. (Comverge), to manage this program. Comverge is responsible for marketing the program to customers, installing load control equipment, data collection and analyses required for validation of the contract capacity.

ENHANCEMENTS AND GROWTH

The Power Saver program retains all of the same program elements that are currently available to customers with the addition of Wi-Fi thermostat options. The existing switch network, representing about 40 MW of reliable capacity, will be maintained and a new, attractive Wi-Fi thermostat option will be marketed to customers who have previously dropped out and offered as an option to new participants. Customers with existing thermostats will also be allowed to participate under the bring-your-own-thermostat (“BYOT”) option. Wi-Fi enables a more enhanced customer experience by interactively engaging the customer via any internet

connected device (such as a mobile phone or computer). Participants will have the option of having a Comverge provided thermostat installed at no charge or enrolling in the program using their own qualifying thermostat. In either case, Comverge will initiate control events through interacting with the thermostats through the participants' home Wi-Fi networks. The thermostat option will provide the additional benefits of potential energy savings through using verifiable set-back strategies and providing a higher level of customer satisfaction. PNM and Comverge anticipate that new participants will be attracted to the thermostat option and that some participants that have previously left the program will reenroll, thereby increasing the resource over time.

5.5 MARKET TRANSFORMATION

OVERVIEW AND DESCRIPTION

The goals of the Market Transformation (MT) program are to 1) achieve a measurable increase in awareness of the importance of energy efficiency; 2) encourage behavior changes that result in the adoption of energy efficient measures; and 3) promote emerging technologies that are not part of existing EE programs but have the potential to be included in programs in the future. MT uses mass-market advertising channels and conducts targeted efforts aimed at specific customer segments, including hard-to-reach segments and schools. In addition to current awareness-building activities that are ongoing.

2018 PLAN PROGRAM SCOPE

In prior years, the program has focused on EE promotional events including community events and presentations, engaging customers on energy efficiency through on-line PNM channels and tools (including Home Energy Advisor, the on-line home energy assessment), funding the educational component of the PNM Home Works school program, and supporting a modest level of mass market advertising to promote energy efficiency and highlight selected program offers. PNM will continue to use Market Transformation funding to provide these awareness building services as well as fund an update of the energy efficiency potential study and improve the Home Energy Advisor through offering a mail-back paper version.

PNM will continue funding the general energy efficiency educational activity that is currently part of the PNM Home Works program with Market Transformation funding. While PNM has received very positive feedback from teachers and students on the education component of the program,[24] the training by itself is not directly linked to energy savings. Rather the education builds awareness of the importance of energy efficiency in general and supports the goals of the 2018 Plan.

The State of New Mexico sponsored a state-wide energy efficiency potential study in 2011.[25] In the last several years, several factors have changed enough to warrant an update that is specific to PNM's service area, and that measures adoption of technologies that have grown among PNM's customers, such as residential air

[24] http://krqe.com/2016/02/02/pnm-teaches-energy-savings-to-elementary-students/

[25] http://www.emnrd.state.nm.us/ECMD/Multimedia/documents/StateofNewMexicoEEPotentialStudy_Vol1ExecSummary.pdf

conditioning and highly efficient lighting. An updated study will be completed in 2017 that will be used to support future EE filings.

As mentioned previously, the Home Energy Advisor is a web-based home energy assessment tool, which has helped many customers to easily and quickly analyze their potential for energy savings opportunities and to direct them to the programs they can use. In 2016, PNM added an optional paper version in both English and Spanish that could be provided to customers at community events and other channels. The completed forms would be mailed to PNM at no charge and the customer would receive the report in the mail. PNM also created an option for customers completing the online assessment to receive rebates for energy efficient appliances, which previously were only available to customers completing the onsite Home Energy Checkup. PNM also launched an online Business Energy Advisor assessment tool for businesses in 2016, which will continue in 2017-18.

ONGOING RESEARCH AND DEVELOPMENT

PNM understands that its energy efficiency plans and programs will need to continue being responsive to evolving markets and technologies. It will maintain an active research and program design effort throughout the next planning cycle and for the foreseeable future. While specific initiatives may be modified over time to reflect the changing needs of the energy efficiency portfolio, the anticipated initiatives that may be developed over the next year or two include:

- Innovative and reliable behavioral approaches to achieving efficiency
- Continued collaboration with New Mexico Gas Company where appropriate to encourage robust and comprehensive program offerings with maximum customer appeal
- Continued expansion of outreach/education-based initiatives either through Market Transformation or within specific programs
- Continued monitoring of any potential new program design concepts being developed or offered in similar utility programs
- Coordination and/or integration with Advanced Metering Infrastructure (AMI) – PNM has filed for authorization of an upgrade to AMI meters in its service territory[26] and expects a decision in 2017. If AMI is approved by the Commission, the current implementation schedule calls for full deployment by 2019. Once AMI is deployed for PNM's customers, PNM will examine additional options for customer communications and analytics that support greater customer participation or engagement in energy efficiency programs.
- Expansion of midstream market approach to residential HVAC systems – In 2015, PNM implemented a midstream program for commercial HVAC systems. Program experience to date shows that there may be substantial opportunities for crossover with the residential HVAC market. As the midstream HVAC program expands in the commercial sector, PNM may consider transitioning residential HVAC incentives to the midstream channel. PNM will continue to analyze program data and conduct secondary research to determine its approach for the 2019 program year.

[26] New Mexico Public Regulation Commission Case No. 15-00312-UT

- Expansion of direct marketing for efficiency programs – Finding customers that need efficiency improvements and that are most likely to participate in programs is becoming more difficult. In 2017, PNM launched a customer analytics initiative, which has the goal of using customer-based data to understand customers better and thereby to develop direct marketing campaigns that increase customer participation and deepen customer engagement in energy efficiency programs. PNM's energy efficiency programs are under review to determine which programs are most likely to benefit from direct marketing to customers.

6 APPENDICES

6.1 APPENDIX A – AVOIDED COSTS

The benefits of energy efficiency and load management are evaluated over the life of the programs in the UCT model using PNM avoided costs and a discount rate of 7.71%. Avoided costs are the costs that PNM would not incur as a result of lower energy consumption and demand resulting from implementation of energy efficiency and load management measures. Energy efficiency avoided cost forecasts were developed by staff in the PNM Planning and Resources department and are shown in Table 6-1 below.

Table 6-1

	Energy ($/kWh)	Capacity ($/kW-yr)	CO_2 ($/Tonne)	CO_2 ($/kWh)
2018	$ 0.0286	$80.00	$0.00	$ -
2019	$ 0.0298	$80.00	$0.00	$ -
2020	$ 0.0343	$80.00	$0.00	$ -
2021	$ 0.0369	$80.00	$0.00	$ -
2022	$ 0.0395	$80.00	$4.41	$ 0.0030
2023	$ 0.0398	$80.00	$3.92	$ 0.0027
2024	$ 0.0404	$80.00	$3.41	$ 0.0023
2025	$ 0.0419	$80.00	$4.04	$ 0.0028
2026	$ 0.0429	$80.00	$4.69	$ 0.0032
2027	$ 0.0431	$80.00	$5.95	$ 0.0041
2028	$ 0.0436	$80.00	$7.24	$ 0.0050
2029	$ 0.0440	$80.00	$7.96	$ 0.0055
2030	$ 0.0445	$80.00	$8.71	$ 0.0060
2031	$ 0.0447	$80.00	$9.47	$ 0.0065
2032	$ 0.0450	$80.00	$9.61	$ 0.0066
2033	$ 0.0455	$80.00	$9.75	$ 0.0067
2034	$ 0.0453	$80.00	$9.90	$ 0.0068
2035	$ 0.0455	$80.00	$10.05	$ 0.0069
2036	$ 0.0455	$80.00	$10.21	$ 0.0070

6.2 APPENDIX B – PUBLIC ADVISORY GROUP MEMBERS

Table 6-2 lists the organizations that have been invited to participate in the energy efficiency advisory group and who receive regular updates on the status and progress of PNM's energy efficiency efforts.

Table 6-2

Participating Organizations	
AARP	Retired So. Cal Edison
Affordable Solar	Retired UNM professor
Behrens, Wheeler & Chamberlain	Santa Fe County
Coalition for Clean Affordable Energy	Santa Fe Green Chamber of Commerce
DeLapp Engineering	SF Community College
Downtown Improvement District	Sierra Club
El Paso Electric	Smart Home Project
Environment New Mexico	Southwest Energy Efficiency Project
Foundation for Building/Green Building Foundation	Southwest Energy Generators
Interfaith Power & Light	Southwest NM Green Chamber of Commerce
NM Attorney General's Office	Utility Shareholders Alliance
NM Energy, Minerals & Natural Resources Dept.	Walmart
NM Gas Company	Western Environmental Law Center
NM Public Regulation Commission	Western Resource Advocates
NMIEC	Xcel Energy
Prosperity Works	

6.3 APPENDIX C – LOAD MANAGEMENT CONTRACT TERMS

Table 6-3

	Comverge, Inc.	**Enbala, Inc.**
Contract Term	Two 5 year terms; requires PRC re-approval for 2nd 5 year term.	5 years
Contract Effective Date	October 1, 2017	January 1, 2018
Contract Start Date	Date of PRC approval of the 2018 Power Saver program	Date of PRC approval of the 2018 Peak Saver program
Projected Total Contract Cost	$22M over 5 years	$8M over 5 years
Contract Pricing	All-inclusive pay-for-performance pricing. Payment per MW of delivered capacity.	All-inclusive pay-for-performance pricing. Payment per MW of delivered capacity.
Basis of Capacity Payments	12 monthly payments based on installed capacity and number of events per week plus energy payments for each hour of dispatch.	4 monthly payments during the control season based on installed capacity plus energy payments for each hour of dispatch.
Customer Incentives (paid to participants by Comverge and Enbala)	Approximately $25 annually for each residential unit and $25/kW for commercial. Adjustable based on participation goals.	Approximately $40/kW but variable based on the complexity and nature of the load. Includes a kW payment and kWh payment.
Minimum Contract Capacity	38 MW	10 MW
Maximum Contract Capacity	60 MW	25 MW
Control Season (for dispatch)	June 1st - September 30	June 1st - September 30
Control Times	1:00 PM – 8:00 PM M-F (excluding holidays)	8:00 AM – 8:00 PM M-F (excluding holidays)
Dispatch Limits	Maximum of 100 hours per control season. Maximum 4 hours per day. Capacity is temperature dependent.	Maximum of 100 hours per control season. Maximum 4 hours per day. Capacity is not temperature dependent.
Emergency Dispatch	Emergency Non-Program Hour dispatch available. Hours count against the maximum of 100 hours per control season.	Additional Curtailments can be called upon during non-program hours. They count against the maximum of 100 hours per control season.
Minimum Response Time	10 minutes	10 minutes
Method of Event Activation	Web-based application	Web-based application
Verification of Actual Capacity	Statistical samples of customers with and without control units (A-B method). The average load reduction per unit (kW factor) is applied to the population. At the discretion of PNM, as AMI data becomes available the A-B method can be replaced by population baseline calculations.	All units will have interval meters and the load will be validated after each dispatch event. Baseline consumption will be determined for each customer.
Penalty for Not Meeting Minimum Contract Capacity	Schedule of liquidated damages applied to the capacity deficit per year.	Contract is in default if failure to meet demand in two consecutive events.

	Comverge, Inc.	Enbala, Inc.
Early Termination Costs	Early termination by PNM allowed if cost recovery is disallowed by the PRC during the term of the contract. Termination costs based on NPV of new installed capacity after August 2016 for remaining term of contract.	Early termination by PNM allowed if cost recovery is disallowed by the PRC. Termination costs based on NPV of installed capacity for remaining term of contract.
Target Customers	Residential and small commercial less than 50 kW peak demand plus apartment complexes. Some larger customers are grandfathered from existing program.	Medium to large commercial and industrial greater than 50 kW peak demand.
Target Loads	Central refrigerated AC units. Electric water heating, pool pumps, small commercial loads may be considered in future.	HVAC components, refrigeration, non-essential lighting, pumps, process loads.
Technology Employed	1) Pager or radio controlled switches installed on exterior AC units. Controlled through web-based activation system. AC compressor is cycled, fans remain on. 2) Wi-Fi thermostats controlled through web application at time of dispatch.	Customized energy management controls installed at each site. Controlled through web-based activation system.
Local Office	Local office to manage recruiting, installation and maintenance using local staffing and contractors. Regional call center to respond to customer inquiries and initiate dispatch events	Local office with program manager and sales staff. Regional call center to respond to customer inquiries and initiate dispatch events.
Marketing Plan	Multi-channel approach including direct mail, bill inserts, radio, print, web and co-marketing. All materials approved by PNM.	Primarily one-on-one selling with all materials approved by PNM.

6.4 APPENDIX D – TRADE ALLY BUSINESS LIST

PNM Residential and Commercial Programs Trade Ally Businesses

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
A.B. Plumbing Inc.	Albuquerque	X	X		
Absolute Mechanical (AFLSC)	Albuquerque	X	X		
Aire Mechanical Inc	Albuquerque	X			
Comfort Solutions of New Mexico LLC	Albuquerque	X	X		
Daniels Heating & Air Conditioning LLC	Albuquerque	X			
Desert Suns Heating & Cooling Inc	Albuquerque	X			
Four Winds Mechanical HTC/AC Inc	Albuquerque	X			
Mechanical Control Solutions LLC	Albuquerque	X	X	X	X
Morrison Supply Co	Albuquerque	X	X		
Norman S Wright Co	Albuquerque	X	X		
RE Michel Co LLC	Albuquerque	X	X		
Sigler Inc	Albuquerque	X			
TLC Plumbing & Utility Inc	Albuquerque	X	X	X	X

PNM Commercial Programs Trade Ally Businesses

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
2M Builders LLC	Pecos		X		
3B Builders Inc	Albuquerque	X			
A+ Electric LLC	Albuquerque	X	X		
A-1 Electric Inc	Albuquerque	X	X		
A-1 Inspectors Services LLC	Rio Rancho	X		X	X
Abraxas Electric LLC	Albuquerque	X	X	X	X
Active Electric Inc	Sandia Park	X			
Advantage Energy Solutions LLC	Corrales	X			
Aim Electric Inc	Santa Fe		X		
Air Management Services	Albuquerque	X	X	X	X
Alba Electric	Silver City				X
Allied Electric Inc	Santa Fe		X		
Amazing Light Building & Electrical LLC	Albuquerque	X	X		
APIC Solutions Inc	Albuquerque	X	X		
Arcs N Sparks Electric Inc	Tijeras	X	X	X	X
Aspen Electric / AE Electric	Ruidoso			X	
Atoparok Electrical Services	Ruidoso			X	
B&D Industries Inc	Albuquerque	X	X	X	X

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
Basic IDIQ Inc	Albuquerque	X	X	X	X
Beaudin Ganze Consulting Engineers	Albuquerque	X			
BECCO Inc	Alamogordo			X	
Beyond Electric	Albuquerque	X			
Bixby Electric Inc	Albuquerque	X	X		
Border States Electric (BSE)	Albuquerque	X			
Bravo Lighting SW	Hobbs				X
Bridgers & Paxton Consulting Engineers	Albuquerque	X			
Broken Arrow Electric Co Inc	Albuquerque	X	X	X	X
Bulldog Energy Solutions Inc	Albuquerque	X	X	X	X
Burgos Group dba Northridge Electric	Albuquerque	X			
Burque Electric Co	Albuquerque	X			
CAC Inc	Albuquerque	X	X		
Cates Electric Inc	Albuquerque	X			
CB Power	Albuquerque	X	X	X	X
CED	Albuquerque	X		X	
CED	Alamogordo	X		X	
Centauri Sales	Albuquerque	X			
Chili Electric	Los Lunas	X			
Colt Electric Inc	Tijeras	X	X		
Comfort Systems USA SW	Albuquerque	X			
Comverge	Albuquerque	X			
Conway Electric	Albuquerque	X	X		
Corbins Electric	Albuquerque	X	X	X	X
Corrales Electric Inc	Albuquerque	X	X		
Current-C Energy Systems Inc	Albuquerque	X	X	X	X
D & H Pump Service Inc	Albuquerque	X	X	X	X
D Electric Inc	Albuquerque	X			
DAC Electric	Albuquerque	X	X		
Dahl of Albuquerque	Albuquerque	X	X		
Demand Drop	Scottsdal,e AZ	X	X	X	X
Deming Coca Cola Bottling Co	Deming				X
Desert Shade Tint & Shades LLC	Albuquerque	X	X	X	X
DKD Electric	Albuquerque	X	X	X	X
DRB Electric Inc	Albuquerque	X	X	X	X
E.R.M. Electric LLC	High Rolls				X
Eagle Creek Construction Inc	Ruidoso			X	
E-Con Inc	Albuquerque	X	X	X	X
ECOterra Energy Consulting	Albuquerque	X			

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
Electrical West	Albuquerque	X			
Electro Data LLC	Sandia Park	X	X	X	X
Elite Electric	Albuquerque	X			
Enchanted Services, LLC	Albuquerque	X			
Energized Electric LLC	Los Lunas	X	X		
Energy Concepts Corp	Sapello	X	X		
Energy Control Inc	Rio Rancho	X		X	
EnerNOC Inc	Corrales	X			
Engineering Economics	Albuquerque	X	X	X	X
Enterprise Builders Corp	Albuquerque	X	X	X	X
Epic Electric	Albuquerque	X	X		
Facility Solutions Group	Albuquerque	X	X	X	X
Financial Energy Management Inc	Santa Fe	X	X	X	X
GE Lighting	National	X			
Genuine Inc dba Demand Drop	Scottsdale, AZ				
GEW Mechanical	Albuquerque	X	X		
Graybar	Albuquerque	X			
H & H Industries Inc	Elmwood, IL	X	X	X	X
Halcom Consulting	Albuquerque	X			
HEI Inc	Albuquerque	X			
Hoffman's Electric Inc	Albuquerque	X	X	X	X
Holophane Lighting	National	X			
I W Inc	Albuquerque	X	X	X	X
Infineo Technologies LLC	Albuquerque	X			
J & C Ortiz Electric LLC	Albuquerque	X	X		
J M Evans Construction Inc	Santa Fe		X		
Johnson Controls	Albuquerque	X			
K Star Electric	Rio Rancho	X			
Keres Consulting Inc	Albuquerque	X	X	X	X
Kershaw Electric	Las Cruces	X			
Kimbrough Electric	Albuquerque	X	X	X	X
LE Electric Inc	Las Cruces			X	X
Lightspeed LLC	Albuquerque	X	X		
LTBL Electric LLC	Los Lunas	X			
Martha's Electric	Santa Fe		X		
McDade-Woodcock Inc	Albuquerque	X			
McFall Electric LLC	Tijeras	X	X		
McNiel Electric Co Inc	Peralta	X	X		
MCO Electric Inc	Albuquerque	X			

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
Mechanical Systems Inc	Albuquerque	X	X	X	X
Miller Bonded Inc	Albuquerque	X			
Mosher Enterprises Inc	Albuquerque	X	X		
Mountain Vector Energy	Corrales	X	X	X	X
Mr Electric of Albuquerque	Albuquerque	X			
National Electric	Albuquerque	X	X		
National Electrical Contractors	Albuquerque	X			
National Energy & Conservation Inc	West Linn, OR	X	X	X	X
Nergy Master LLC	Las Cruces	X	X	X	X
New Line Technology Inc	Rio Rancho	X	X		
Noresco LLC	Albuquerque	X	X	X	X
Number 1 Plumbing	Albuquerque	X			
Omega Contractors	Peralta	X	X	X	X
Orion Energy Systems Inc	Manitowoc, WI	X	X	X	X
Osceola Energy	Albuquerque	X	X	X	X
Pearl Mechanical LLC	Bernalillo	X	X	X	X
Phaze One Electric	Los Lunas	X	X		
Philips Lighting	Albuquerque	X	X	X	X
Positive Electric	Albuquerque	X			
Prime Electric Inc	Albuquerque	X			
Pumps & Service	Albuquerque	X			
R & B Commercial Service	Albuquerque	X			
Randy's Electric Co Inc	Peralta	X	X		
Red Mountain Lighting Inc	Mesa, AZ	X			
Rentschler Electric	Alamogordo			X	
Resource Lighting	Albuquerque	X		X	X
RKL Sales Corporation	Albuquerque	X		X	
Rodeo Electrical Services	Santa Fe		X		
Schroeder Sales Inc	Albuquerque	X			
Service Electric Co Inc	Albuquerque	X			
Siemens Inc	Albuquerque	X			
Silverado Enterprises Inc	Albuquerque	X	X		
Southwest Green Building Center	Albuquerque	X			
Sparky's Electric LLC	Albuquerque	X	X		
Specialty Electric Inc	Albuquerque	X			
SRS Electric LLC	Bosque Farms	X	X		
S-Squire Inc	Albuquerque	X	X	X	X
Strategic Lighting	Albuquerque	X	X		
Summit Electric Supply	Albuquerque	X	X	X	X

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
Supermarket Energy Technologies	Phoenix, AZ	X	X	X	X
Sustainable Building Solutions	Albuquerque	X	X	X	X
Sylvania Lighting Services	Phoenix, AZ	X			
Synergy Electric Integration Inc	Albuquerque	X			
Three Strand Electric	Albuquerque	X			
Trane SW	Albuquerque	X	X	X	X
Travers Mechanical	Albuquerque	X			
Tru Energy Solutions LLC	Albuquerque	X	X	X	X
True Light Electric Inc	Albuquerque	X	X		
Turquoise Trail Electric & Plumbing LLC	Cedar Crest	X	X		
US Electrical Corp	Albuquerque	X			
US Energy Recovery	Tempe, AZ	X	X	X	X
VA Electric Inc	Albuquerque	X	X		
Varitec Solutions	Albuquerque	X	X	X	X
Verde Lights Inc	Miami Beach, FL	X			
Vibrantcy Inc	Albuquerque	X			
Voss Lighting	Albuquerque	X			
Walker A/C & Refrigeration	Ruidoso Downs			X	X
Wentz Electric Co LLC	Silver City				X
Westek Contracting LLC	Los Lunas	X	X		
WH Pacific	Albuquerque	X			
Wisco Supply Inc	Albuquerque	X		X	
Yearout Service LLC	Albuquerque	X			
Yucca Electric LLC	Albuquerque	X	X		

PNM Residential Programs Trade Ally Businesses

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
#1 Plumbing And Air	Albuquerque	X			
1-Call Mechanical, LLC	Albuquerque	X			
A & G Heating and Air Conditioning, Inc.	Albuquerque	X			
A & G Mechanical, Inc	Rio Rancho	X			
A B Honest 1 Plumbing, Heating & Cooling, LLC	Albuquerque	X			
A.I.O. Trades	Albuquerque	X			
A1 Pool Supply	Las Vegas, NV				
AAA Master Services	Albuquerque	X			
Abel Plumbing & Heating	Albuquerque	X			
Able Servicepros LLC	Rio Rancho	X			
Abq Temperature Management LLC	Albuquerque	X			
Academy	Albuquerque	X			
Ace Hardware	Rio Rancho	X			
Ace Hardware	Ruidoso			X	
Ace Hardware	Santa Fe	X			
Ace Hardware	Silver City				X
Ace Hardware (2 Locations)	Albuquerque	X			
Affordable Service, Inc.	Rio Rancho	X			
Air Comforting Experts, LLC	Santa Fe		X		
Air Conditioning & Heating Service Co.	Santa Fe		X		
Air Conditioning Systems, Inc.	Albuquerque	X			
Air One Cooling And Heating, LLC	Placitas	X			
Air Pro, Inc.	Albuquerque	X			
Albuquerque Plumbing Heating And Cooling	Albuquerque	X			
Albuquerque Winair	Albuquerque	X			
Alpine Builders	Santa Fe	X			
Amazon.Com	On-Line				
Ancae Heating, Air Conditioning & Plumbing	Albuquerque	X			
Anderson Air Corps	Albuquerque	X			
Anderson Refrigeration Inc.	Alamogordo				X
Anthony's Air Pros	Rio Rancho	X	X		
Apple Tree Home Improvement	Ruidoso			X	
Aranda's Plumbing, Heating And Supply, Inc.	Santa Fe		X		
Arch Design	Albuquerque	X			
Atar, Inc.	Albuquerque	X			
Axiom Home Services	Albuquerque	X			
Aztec Mechanical, Inc.	Albuquerque	X			

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
B Carlson	Albuquerque	X	X		
B Carlson	Albuquerque	X			
Backyardpoolsuperstore.Com	On-Line				
Baker Distributing	Albuquerque	X			
Basin Air	Alamogordo			X	
Batteries Plus Bulbs	Santa Fe	X			
Batteries Plus Bulbs (NE)	Albuquerque	X			
Bentley Plumbing And Heating	Los Lunas			X	
Best Buy	Albuquerque	X	X		
Best Buy	Santa Fe	X	X		
Black Bear Mechanical, LLC	Albuquerque	X			
Blue Water Pools Inc.	Albuquerque	X			
Brents HVAC And Plumbing	Albuquerque	X			
Brothers Electro Mechanical, Inc.	Albuquerque	X			
Bryan Andrade	Albuquerque	X			
Budget Climate Control	Albuquerque	X			
Budget Climate Control	Rio Rancho	X			
Builders Mechanical, Inc.	Albuquerque	X			
Buyer's Protection Service, Inc.	Albuquerque	X			
CaitCo. Drainworks	Santa Fe		X		
Cartwright'S Plumbing & Roto Rooter	Santa Fe		X		
Central NM Housing Corporation	Albuquerque	X			
Clean Air Mechanical Inc.	Albuquerque	X			
Comfort Doctor Heating & Cooling	Santa Fe		X		
Conn's Home Plus	Albuquerque	X			
Copperstone Enterprises Inc	Albuquerque	X			
Costco (3 Locations)	Albuquerque	X			
Courtesy Plumbing Heating & Air Conditioning Inc	Albuquerque	X			
Cross Unlimited, LLC	Silver City				X
Cunningham Distributing, Inc.	Albuquerque	X			
Dahl Of Santa Fe	Santa Fe		X		
Davis the Plumber	Albuquerque	X			
Day & Night Plumbing Heating & Cooling Inc.	Albuquerque	X			
Delta Mechanical	Albuquerque	X			
Desert Mountain Plumbing And Heating Inc.	Santa Fe		X		
Desert Pools And Spas	Albuquerque	X			
Discount Pool Spas & Supplies	Alamogordo			X	

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
DJ's Plumbing & Mechanical, LLC	Albuquerque	X			
Doc Savage Supply	Albuquerque	X			
Dollar Tree	Alamogordo				X
Dollar Tree	Belen			X	
Dollar Tree	Deming				X
Dollar Tree	Las Vegas		X		
Dollar Tree	Los Lunas			X	
Dollar Tree	Ruidoso			X	
Dollar Tree	Santa Fe		X		
Dollar Tree (14 Locations)	Albuquerque	X			
Dollar Tree (2 Locations)	Rio Rancho	X			
Donner Plumbing & Heating Inc.	Albuquerque	X			
Dr. Plumbing	Albuquerque	X			
Dub-L-Ee LLC	Albuquerque	X			
Duke City Heating And Cooling, LLC	Albuquerque	X			
Durano Construction	Albuquerque	X			
Ebay.Com	On-Line				
Em Plumbing Heating Mechanical	Albuquerque	X			
EM Plumbing, Heating & Mechanical	Albuquerque	X			
Family Dollar	Bayard				X
Family Dollar	Belen			X	
Family Dollar	Bernalillo	X			
Family Dollar	Clayton				X
Family Dollar	Deming				X
Family Dollar	Las Vegas		X		
Family Dollar	Lordsburg				X
Family Dollar	Peralta			X	
Family Dollar	Pojoaque		X		
Family Dollar	Rio Rancho	X			
Family Dollar	Santa Fe		X		
Family Dollar	Silver City				X
Family Dollar	Tularosa				X
Family Dollar (2 Locations)	Alamogordo				X
Family Dollar (2 Locations)	Ruidoso				X
Family Dollar (2 Locations)	Silver City				X
Family Dollar (26 Locations)	Albuquerque	X			
Family Dollar (3 Locations)	Los Lunas			X	
Ferguson	Albuquerque	X			
FM Mechanical	Albuquerque	X			

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
Four Star Mechanical Services Inc.	Albuquerque	x	x		
G C Services, Inc.	Albuquerque	X			
Gardner Plumbing	Albuquerque	X			
Garrity Insulation	Albuquerque	X			
Genesis Spas & Pool Supply	Santa Fe		X		
Gimesum Heating and Cooling	Albuquerque	X	X		
Glorieta Creek Mechanical	Glorieta		X		
Golden Sun Solar	Santa Fe	X	X		
Goodman	Albuquerque	X			
Gorman Industries	Albuquerque	X			
Gustave Larson	Albuquerque	X			
H.E.L.P., Inc.	Albuquerque	X			
Hacienda Home Center	Las Vegas		X		
Harper Heating And Air Conditioning	Albuquerque	X			
Hercules Industries	Albuquerque	X			
High Desert Air Conditioning And Heating	Santa Fe		X		
Home Depot	Los Lunas			X	
Home Depot	Rio Rancho	X			
Home Depot	Santa Fe	X			
Home Depot	Alamogordo				X
Home Depot (4 Locations)	Albuquerque	X			
Home Energy Professionals	Santa Fe		X		
Home Service Contractors, Inc.	Alamogordo				X
Hubbell Electro-Mechanical	Santa Fe		X		
Inyopools.Com	On-Line				
Johnstone Supply Co	Albuquerque	X			
Johnstone Supply Co	Santa Fe		X		
Just Sprinklers	Rio Rancho	X			
Kokopelli Pool & Spa LLC	Santa Fe		X		
KSM	Albuquerque	X			
Lane Plumbing Company, Inc.	Alamogordo				X
Lee-Sure Pools, Inc	Albuquerque	X			
Lennox Parts Plus	Albuquerque	X			
Leonard's Plumbing And Heating	Los Lunas			X	
Leslie's Pool Supplies #868	Phoenix, AZ				
Leslie's Pool Supplies (3 Locations)	Albuquerque	X			
Limitless Pool And Spa	Albuquerque	X			
Lowe’s	Alamogordo	X	X	X	
Lowe’s	Albuquerque	X	X	X	

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
Lowe's	Los Lunas	X	X	X	
Lowe's	Rio Rancho	X	X	X	
Lowe's	Santa Fe	X	X	X	
Magic Mobile Homes, Inc.	Albuquerque	X			
Magnoliapools.Com	On-Line				
Matt's - The Pool & Fire Place	Albuquerque	X			
Mechanical Concepts Ltd Co	Albuquerque	X			
Mel Muller Repair	Albuquerque	X			
MGP Mechanical	Albuquerque	X			
MGS Refrigeration, Heating, & Cooling	Alamogordo				X
Mi Casa Heating LLC	Santa Fe		X		
Miller's Insulation	Albuquerque	X	X		
Moore Quality Air, LLC	Albuquerque	X			
Morrison Supply Co	Alamogordo				X
Morrison Supply Santa Fe	Santa Fe		X		
N Demand Test & Balance LLC	Albuquerque	X			
Natures Creations Inc	Santa Fe		X		
New Mexico Pools & Spas	Albuquerque	X			
Otero Plumbing & Heating, Inc.	Alamogordo				X
Outlaw Mechanical	Sandia Park	X			
Paul Davis Restoration of Northern NM	Santa Fe		X		
Paul's Plumbing & Heating, Inc.	Santa Fe		X		
PDR Of Northern New Mexico, Inc.	Santa Fe		X		
Pearl Mechanical LLC	Albuquerque	X			
Perfection Pools & Plumbing	Albuquerque	X			
Perkins Mechanical, LLP	Santa Fe		X		
Perry Supply Co	Albuquerque	X			
Perry Supply Co	Santa Fe		X		
PHC Systems	Peralta			X	
Pinos Altos Plumbing Corp	Silver City				X
Pool And Spa Doctor Inc	Santa Fe		X		
Pool Supply Unlimited	Ontario, CA				
Pool Works	Albuquerque	X			
Poolcleaningparts.Com	On-Line				
Poolplaza.Com	On-Line				
Pools Plus	Corrales	X			
Poolsupply4Less	Kerny, NJ				
Poolsupplyunlimited.Com	On-Line				
Poolsupplyworld.Com	On-Line				

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
Poper Construction LLC	Albuquerque	X			
Preferred Plumbing, Heating, & Cooling, LLC	Albuquerque	X			
Pro-Tech Air Conditioning & Heating	Santa Fe		X		
R & R Heating & Air	Albuquerque	X			
Rak's Building Supply	Los Lunas			X	
Rak's Building Supply (SW)	Albuquerque	X			
Ranch Market	Clayton				X
Ray of Light	Santa Fe	X			
Ray Sego Insulation, Inc.	Los Lunas	X	x		
Redline Mechanical	Albuquerque	X			
Reliable Tech Heating, Cooling & Plumbing LLC.	Santa Fe		X		
Rich Duran Plumbing & Heating Inc.	Santa Fe		X		
Rio Grande Food Project	Albuquerque	X			
RMS Services	Albuquerque	X			
Roadrunner Air Conditioning, Heating & Refrigeration	Santa Fe		X		
Salazar Heating Cooling & Plumbing	Santa Fe		X		
Salvation Army	Las Vegas		X		
Salvation Army	Santa Fe		X		
Samon's	Alamogordo				X
Samon's	Bosque Farms			X	
Samon's	Rio Rancho	X			
Samon's (5 Locations)	Albuquerque	X			
Sam's Club	Santa Fe	X			
Sam's Club (3 Locations)	Albuquerque	X			
Santa Fe Habitat for Humanity	Santa Fe		X		
Santa Fe Winnelson	Santa Fe		X		
Saucedo's	Lordsburg				X
SCP	Albuquerque	X			
Sears	Alamogordo	X	X	X	
Sears	Albuquerque	X	X	X	
Sears	Belen	X	X	X	
Sears	Santa Fe	X	X	X	
Simmons Plumbing Company	Albuquerque	X			
Smith's	Los Lunas			X	
Smith's	Rio Rancho	X			
Smith's (13 Locations)	Albuquerque	X			
Smith's (2 Locations)	Santa Fe		X		

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
Southwestern Regional Housing Community Development Corp	Deming				X
Sr Construction	Albuquerque	X			
St. Francis Newman Center	Silver City				X
STM Air Conditioning And Heating	Santa Fe		X		
Sun State Mechanical, Inc.	Albuquerque	X			
Sun Valley True Value	Deming				X
Sun Valley True Value	Silver City				X
Sunshine Plumbing & Heating, Inc.	Albuquerque	X			
Techwest, Inc.	Albuquerque	X			
Territorial Plumbing, Heating and Electric LLC	Santa Fe		X		X
The Lamp Shop (NE)	Albuquerque	X			
The Storehouse	Albuquerque				
Thompson Heating And Air Conditioning, Inc.	Albuquerque	X			
TLC Plumbing & Utility Inc	Santa Fe		X		
Total Comfort Heating & Cooling, Inc.	Rio Rancho	X			
Town & Country Plumbing, Heating, Cooling, LLC	Albuquerque	X			
Townsend Pool Specialists	Sandia Park	X			
True Value	Clayton				X
True Value	Ruidoso			X	
True Value	Tularosa				X
True Value	Alamogordo				X
True Value (2 Locations)	Albuquerque	X			
True Value (2 Locations)	Santa Fe	X			
True Value (Pat Romero's)	Las Vegas		X		
United Refrigeration	Albuquerque	X			
Unlimited Plumbing, LLC	Albuquerque	X			
VICA Heating & A/C	Albuquerque	X			
Wagner Mechanical	Albuquerque	X			
Walmart	Alamogordo				X
Walmart	Belen			X	
Walmart	Bernalillo	X			
Walmart	Deming				X
Walmart	Las Vegas		X		
Walmart	Los Lunas			X	
Walmart	Ruidoso Downs			X	
Walmart	Silver City				X

Name	City/Town	Area Served			
		Central	Northern	South Central	Southwest
Walmart (13 Locations)	Albuquerque	X			
Walmart (2 Locations)	Rio Rancho	X			
Walmart (2 Locations)	Santa Fe	X			
Watts Eastside Pools	Albuquerque	X			
Williams Mechanical & Air Conditioning	Albuquerque	X			
Winnelson	Alamogordo				X
www.Webpoolsupply.Com	On-Line				

PNM Retail Rebate Programs Trade Ally Businesses

Retailer Name	City/Town
Ace Hardware	Rio Rancho
Ace Hardware	Ruidoso
Ace Hardware	Santa Fe
Ace Hardware	Silver City
Ace Hardware (2 Locations)	Albuquerque
Alpine Builders	Santa Fe
Apple Tree Home Improvement	Ruidoso
Batteries Plus Bulbs	Santa Fe
Batteries Plus Bulbs (NE)	Albuquerque
Costco (3 Locations)	Albuquerque
Dollar Tree	Alamogordo
Dollar Tree	Belen
Dollar Tree	Deming
Dollar Tree	Las Vegas
Dollar Tree	Los Lunas
Dollar Tree	Ruidoso
Dollar Tree	Santa Fe
Dollar Tree (14 Locations)	Albuquerque
Dollar Tree (2 Locations)	Rio Rancho
Family Dollar	Bayard
Family Dollar	Belen
Family Dollar	Bernalillo
Family Dollar	Clayton
Family Dollar	Deming
Family Dollar	Las Vegas
Family Dollar	Lordsburg
Family Dollar	Peralta
Family Dollar	Pojoaque
Family Dollar	Rio Rancho

Retailer Name	City/Town
Family Dollar	Santa Fe
Family Dollar	Silver City
Family Dollar	Tularosa
Family Dollar (2 Locations)	Alamogordo
Family Dollar (2 Locations)	Ruidoso
Family Dollar (2 Locations)	Silver City
Family Dollar (26 Locations)	Albuquerque
Family Dollar (3 Locations)	Los Lunas
Hacienda Home Center	Las Vegas
Home Depot	Los Lunas
Home Depot	Rio Rancho
Home Depot	Santa Fe
Home Depot	Alamogordo
Home Depot (4 Locations)	Albuquerque
Rak's Building Supply	Los Lunas
Rak's Building Supply (SW)	Albuquerque
Ranch Market	Clayton
Ray of Light	Santa Fe
Samon's	Alamogordo
Samon's	Bosque Farms
Samon's	Rio Rancho
Samon's (5 Locations)	Albuquerque
Sam's Club	Santa Fe
Sam's Club (3 Locations)	Albuquerque
Saucedo's	Lordsburg
Smith's	Los Lunas
Smith's	Rio Rancho
Smith's (13 Locations)	Albuquerque
Smith's (2 Locations)	Santa Fe
Sun Valley True Value	Deming
Sun Valley True Value	Silver City
The Lamp Shop (NE)	Albuquerque
True Value	Clayton
True Value	Ruidoso
True Value	Tularosa
True Value	Alamogordo
True Value (2 Locations)	Albuquerque
True Value (2 Locations)	Santa Fe
True Value (Pat Romero's)	Las Vegas
Walmart	Alamogordo

Retailer Name	City/Town
Walmart	Belen
Walmart	Bernalillo
Walmart	Deming
Walmart	Las Vegas
Walmart	Los Lunas
Walmart	Ruidoso Downs
Walmart	Silver City
Walmart (13 Locations)	Albuquerque
Walmart (2 Locations)	Rio Rancho
Walmart (2 Locations)	Santa Fe

6.5 APPENDIX E – TECHNICAL MANUAL

The following pages show the UCT calculations for the various programs. The pages are extracted from the PNM UCT model.

Commercial Comprehensive Program

This program includes the Retrofit New Construction, QuickSaver, Building Tuneup, Midstream and Multifamily components.

TECHNICAL ASSUMPTIONS		
Measure Type	Commercial	**SOURCE:**
Lifetime Years	11.33	See component program sheets for sources.
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 5,871.19	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	49,182	
Gross Annual kW Savings Per Unit	7.50	
Net-to-Gross	87.8%	
Free Ridership	12.2%	
Net Annual kWh Savings Per Unit	43,173	
Net Annual kW Savings Per Unit	6.58	
	:	
2018	855	
2019	944	
2020	944	
Total 3 Year Units / Participants	2,744	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 8,040,426	$ 9,009,501	$ 9,009,643	$ 26,059,570
NPV Benefits	$ 17,038,181	$ 19,393,382	$ 20,060,243	$ 56,491,806
UCT	**2.12**	**2.15**	**2.23**	**2.17**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	36,913,336	40,116,755	40,116,755	117,146,847
Cumulative kWh Savings	36,913,336	77,030,091	117,146,847	117,146,847
Lifetime kWh Savings	418,168,592	457,031,158	457,031,158	1,332,230,909
kW Savings	5,626	6,216	6,216	18,058.4
Cumulative kW Savings	5,626	11,842	18,058	18,058.4
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	-	-	-	$ -
3rd Party Administration	2,562,668	2,817,655	2,817,655	$ 8,197,977
Rebates	5,019,865	5,795,604	5,893,265	$ 16,708,735
Promotional Costs	10,000	10,000	10,000	$ 30,000
Subtotal	$ 7,592,533	$ 8,623,259	$ 8,720,920	$ 24,936,712
Taxes	182,302	201,024	201,024	
ALLOCATED COSTS				
Internal Admin	472,170	499,774	425,804	$ 1,397,748
Other	206,557	157,347	158,046	$ 521,950
M&V	206,782	222,729	198,493	$ 628,004
Subtotal	$ 1,067,811	$ 1,080,874	$ 983,367	$ 2,547,702
Total PNM Costs	**$ 8,660,343**	**$ 9,704,133**	**$ 9,704,287**	**$ 27,484,414**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 1,630,405	$ -	$ -	$ 1,630,405
2019	$ 1,680,273	$ 1,834,941	$ -	$ 3,515,214
2020	$ 1,859,559	$ 2,029,787	$ 2,029,787	$ 5,919,133
2021	$ 1,961,931	$ 2,141,043	$ 2,141,043	$ 6,244,017
2022	$ 2,187,778	$ 2,386,489	$ 2,386,489	$ 6,960,756
2023	$ 2,186,150	$ 2,384,720	$ 2,384,720	$ 6,955,591
2024	$ 2,196,079	$ 2,395,510	$ 2,395,510	$ 6,987,100
2025	$ 2,274,487	$ 2,480,723	$ 2,480,723	$ 7,235,932
2026	$ 2,329,784	$ 2,540,819	$ 2,540,819	$ 7,411,422
2027	$ 2,288,766	$ 2,589,912	$ 2,589,912	$ 7,468,590
2028	$ 2,277,401	$ 2,542,730	$ 2,648,515	$ 7,468,646
2029	$ 633,195	$ 2,516,554	$ 2,580,498	$ 5,730,246
2030	$ 149,377	$ 744,125	$ 2,556,023	$ 3,449,525
2031	$ 150,851	$ 226,277	$ 752,931	$ 1,130,059
2032	$ 151,714	$ 227,571	$ 227,571	$ 606,856
2033	$ -	$ 229,444	$ 229,444	$ 458,887
2034	$ -	$ -	$ 229,150	$ 229,150
2035	$ -	$ -	$ -	$ -
2036	$ -	$ -	$ -	$ -
Totals	**$23,957,750**	**$27,270,645**	**$28,173,134**	**$ 79,401,529**

NOTES

Commercial New Construction / Retrofit

This is the new construction and retrofit component of the Commercial Comprehensive Program

TECHNICAL ASSUMPTIONS		
Measure Type	Commercial	**SOURCE:**
Lifetime Years	11.00	2016 M&V
Incremental Cost Per Unit		
Rebate Cost Per Unit	$ 7,915.84	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	94,236	
Gross Annual kW Savings Per Unit	14.42	
	:	
Net-to-Gross	82%	
Free Ridership	18%	
Net Annual kWh Savings Per Unit	77,273.67	
Net Annual kW Savings Per Unit	11.83	
	:	
2018	325	
2019	345	
2020	345	
Total 3 Year Units / Participants	1,016	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 4,362,888	$ 4,677,400	$ 4,760,696	$ 13,800,983
NPV Benefits	$ 11,314,035	$ 12,458,124	$ 12,899,939	$ 36,672,098
UCT	**2.59**	**2.66**	**2.71**	**2.66**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	25,113,944	26,694,003	26,694,003	78,501,950
Cumulative kWh Savings	25,113,944	51,807,947	78,501,950	78,501,950
Lifetime kWh Savings	276,253,386	293,634,032	293,634,032	863,521,450
kW Savings	3,843.2	4,085.0	4,085.0	12,013.3
Cumulative kW Savings	3,843.2	7,928.3	12,013.3	12,013.3
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 1,531,338	$ 1,627,683	$ 1,627,683	$ 4,786,704
Rebates	$ 2,572,648	$ 2,832,169	$ 2,929,830	$ 8,334,646
Promotional Costs	$ 10,000	$ 10,000	$ 10,000	$ 30,000
Subtotal	$ 4,113,986	$ 4,469,852	$ 4,567,513	$ 13,151,350
Taxes	$ 105,471	$ 112,107	$ 112,107	$ 329,685
ALLOCATED COSTS				
Internal Admin	$ 255,844	$ 259,057	$ 249,899	$ 764,800
Other	$ 111,922	$ 81,561	$ 82,775	$ 276,258
M&V	$ 112,044	$ 115,451	$ 115,451	$ 342,946
Subtotal	$ 585,281	$ 568,176	$ 560,233	$ 1,713,689
Total PNM Costs	**$ 4,699,267**	**$ 5,038,027**	**$ 5,127,745**	**$ 14,865,039**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 1,110,601			$ 1,110,601
2019	$ 1,144,529	$ 1,216,537		$ 2,361,066
2020	$ 1,266,506	$ 1,346,189	$ 1,346,189	$ 3,958,884
2021	$ 1,336,155	$ 1,420,220	$ 1,420,220	$ 4,176,594
2022	$ 1,489,809	$ 1,583,541	$ 1,583,541	$ 4,656,892
2023	$ 1,488,702	$ 1,582,364	$ 1,582,364	$ 4,653,431
2024	$ 1,495,457	$ 1,589,544	$ 1,589,544	$ 4,674,546
2025	$ 1,548,801	$ 1,646,245	$ 1,646,245	$ 4,841,292
2026	$ 1,586,423	$ 1,686,234	$ 1,686,234	$ 4,958,890
2027	$ 1,617,156	$ 1,718,901	$ 1,718,901	$ 5,054,957
2028	$ 1,653,843	$ 1,757,896	$ 1,757,896	$ 5,169,634
2029	$ -	$ 1,784,079	$ 1,784,079	$ 3,568,158
2030	$ -	$ -	$ 1,811,898	$ 1,811,898
2031	$ -	$ -	$ -	$ -
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
2036	$ -	$ -	$ -	$ -
Totals	**$15,737,982**	**$17,331,750**	**$17,927,111**	**$ 50,996,844**

NOTES

Small Business

This is the Small Business (Quick Saver) component of the Commercial Comprehensive Program

TECHNICAL ASSUMPTIONS		
Measure Type	Commercial	**SOURCE:**
Lifetime Years	12.00	2016 M&V
Incremental Cost Per Unit		
Rebate Cost Per Unit	$ 4,884.80	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	31,927	
Gross Annual kW Savings Per Unit	2.77	
	:	
Net-to-Gross	87%	
Free Ridership	13%	
Net Annual kWh Savings Per Unit	27,904	
Net Annual kW Savings Per Unit	2.4	
	:	
2018	285	
2019	300	
2020	300	
Total 3 Year Units / Participants	885	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 1,969,042	$ 2,114,600	$ 2,108,235	$ 6,191,876
NPV Benefits	$ 3,314,019	$ 3,627,575	$ 3,768,832	$ 10,710,426
UCT	**1.68**	**1.72**	**1.79**	**1.73**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	7,952,642	8,371,202	8,371,202	24,695,047
Cumulative kWh Savings	7,952,642	16,323,844	24,695,047	24,695,047
Lifetime kWh Savings	95,431,705	100,454,427	100,454,427	296,340,559
kW Savings	689.1	725.3	725.3	2,139.7
Cumulative kW Savings	689.1	1,414.4	2,139.7	2,139.7
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 477,704	$ 502,847	$ 502,847	$ 1,483,398
Rebates	$ 1,392,167	$ 1,532,486	$ 1,532,486	$ 4,457,138
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 1,869,872	$ 2,035,332	$ 2,035,332	$ 5,940,537
Taxes	$ 32,902	$ 34,634	$ 34,634	$ 102,169
ALLOCATED COSTS				
Internal Admin	$ 116,285	$ 117,961	$ 111,358	$ 345,604
Other	$ 50,870	$ 37,138	$ 36,886	$ 124,894
M&V	$ 50,926	$ 52,570	$ 52,570	$ 156,066
Subtotal	$ 250,983	$ 242,303	$ 235,447	$ 728,733
Total PNM Costs	**$ 2,120,855**	**$ 2,277,636**	**$ 2,270,780**	**$ 6,669,270**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 305,944			$ 305,944
2019	$ 316,688	$ 333,355		$ 650,043
2020	$ 355,313	$ 374,014	$ 374,014	$ 1,103,341
2021	$ 377,368	$ 397,230	$ 397,230	$ 1,171,828
2022	$ 426,025	$ 448,447	$ 448,447	$ 1,322,920
2023	$ 425,674	$ 448,078	$ 448,078	$ 1,321,831
2024	$ 427,813	$ 450,330	$ 450,330	$ 1,328,473
2025	$ 444,706	$ 468,111	$ 468,111	$ 1,380,928
2026	$ 456,619	$ 480,652	$ 480,652	$ 1,417,922
2027	$ 466,351	$ 490,896	$ 490,896	$ 1,448,143
2028	$ 477,968	$ 503,125	$ 503,125	$ 1,484,218
2029	$ 485,769	$ 511,336	$ 511,336	$ 1,508,440
2030	$ -	$ 520,060	$ 520,060	$ 1,040,120
2031	$ -	$ -	$ 526,654	$ 526,654
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
2036	$ -	$ -	$ -	$ -
Totals	**$ 4,966,240**	**$ 5,425,634**	**$ 5,618,932**	**$ 16,010,806**

NOTES

Building Tune-Up Program

This is the Building Tune-Up component of the Commercial Comprehensive Program

TECHNICAL ASSUMPTIONS		SOURCE:
Measure Type	Commercial	
Lifetime Years	10.00	2016 M&V
Incremental Cost Per Unit		
Rebate Cost Per Unit	$ 2,586	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	5,800	
Gross Annual kW Savings Per Unit	3.20	
	:	
Net-to-Gross	87%	
Free Ridership	13%	
Net Annual kWh Savings Per Unit	5,046.00	
Net Annual kW Savings Per Unit	2.784	
	:	
2018	125	
2019	125	
2020	125	
Total 3 Year Units / Participants	375	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 195,600	$ 193,095	$ 192,517	$ 581,212
NPV Benefits	$ 479,018	$ 488,959	$ 499,108	$ 1,467,085
UCT	2.45	2.53	2.59	2.52

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	630,750	630,750	630,750	1,892,250
Cumulative kWh Savings	630,750	1,261,500	1,892,250	1,892,250
Lifetime kWh Savings	6,307,500	6,307,500	6,307,500	18,922,500
kW Savings	348.0	348.0	348.0	1,044.0
Cumulative kW Savings	348.0	696.0	1,044.0	1,044.0
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 61,625	$ 61,625	$ 61,625	$ 184,875
Rebates	$ 123,250	$ 123,250	$ 123,250	$ 369,750
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 184,875	$ 184,875	$ 184,875	$ 554,625
Taxes	$ 4,244	$ 4,244	$ 4,244	$ 12,733
ALLOCATED COSTS				
Internal Admin	$ 11,497	$ 10,715	$ 10,115	$ 32,327
Other	$ 5,030	$ 3,373	$ 3,350	$ 11,753
M&V	$ 5,035	$ 4,775	$ 4,775	$ 14,585
Subtotal	$ 25,806	$ 23,108	$ 22,485	$ 71,399
Total PNM Costs	**$ 210,681**	**$ 207,983**	**$ 207,360**	**$ 626,024**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 49,681			$ 49,681
2019	$ 50,533	$ 50,533		$ 101,067
2020	$ 53,597	$ 53,597	$ 53,597	$ 160,790
2021	$ 55,346	$ 55,346	$ 55,346	$ 166,038
2022	$ 59,205	$ 59,205	$ 59,205	$ 177,615
2023	$ 59,177	$ 59,177	$ 59,177	$ 177,532
2024	$ 59,347	$ 59,347	$ 59,347	$ 178,041
2025	$ 60,687	$ 60,687	$ 60,687	$ 182,060
2026	$ 61,632	$ 61,632	$ 61,632	$ 184,895
2027	$ 62,404	$ 62,404	$ 62,404	$ 187,211
2028	$ -	$ 63,325	$ 63,325	$ 126,650
2029	$ -	$ -	$ 63,944	$ 63,944
2030	$ -	$ -	$ -	$ -
2031	$ -	$ -	$ -	$ -
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
2036	$ -	$ -	$ -	$ -
Totals	**$ 571,609**	**$ 585,253**	**$ 598,663**	**$ 1,755,524**

NOTES

Distributor (Midstream) Incentives

This is the midstream component of the Commercial Comprehensive Program

TECHNICAL ASSUMPTIONS		
Measure Type	Commercial	**SOURCE:**
Lifetime Years	15.00	2016 M&V adjusted for projected measure mix
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 2,900	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	23,400	
Gross Annual kW Savings Per Unit	6.80	
Net-to-Gross	80%	
Free Ridership	20%	
Net Annual kWh Savings Per Unit	18,720.00	
Net Annual kW Savings Per Unit	5.44	
	:	
2018	100	
2019	150	
2020	150	
Total 3 Year Units / Participants	400	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 783,762	$ 1,160,422	$ 1,086,745	$ 3,030,929
NPV Benefits	$ 1,428,370	$ 2,191,140	$ 2,239,581	$ 5,859,091
UCT	**1.82**	**1.89**	**2.06**	**1.93**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	1,872,000	2,808,000	2,808,000	7,488,000
Cumulative kWh Savings	1,872,000	4,680,000	7,488,000	7,488,000
Lifetime kWh Savings	28,080,000	42,120,000	42,120,000	112,320,000
kW Savings	544.0	816.0	816.0	2,176.0
Cumulative kW Savings	544.0	1,360.0	2,176.0	2,176.0
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration (Note 2)	$ 117,000	$ 175,500	$ 175,500	$ 468,000
Rebates	$ 631,800	$ 947,700	$ 947,700	$ 2,527,200
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 748,800	$ 1,123,200	$ 1,123,200	$ 2,995,200
Taxes	$ 8,058	$ 12,088	$ 12,088	$ 32,234
ALLOCATED COSTS				
Internal Admin	$ 46,567	$ 65,097	$ 10,115	$ 121,779
Other	$ 20,371	$ 20,495	$ 20,355	$ 61,221
M&V	$ 20,393	$ 29,011	$ 4,775	$ 54,180
Subtotal	$ 95,390	$ 126,690	$ 47,333	$ 269,413
Total PNM Costs	**$ 844,190**	**$ 1,249,890**	**$ 1,170,533**	**$ 3,264,613**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 105,096			$ 105,096
2019	$ 107,625	$ 161,438		$ 269,063
2020	$ 116,718	$ 175,076	$ 175,076	$ 466,871
2021	$ 121,909	$ 182,864	$ 182,864	$ 487,637
2022	$ 133,363	$ 200,044	$ 200,044	$ 533,451
2023	$ 133,280	$ 199,920	$ 199,920	$ 533,121
2024	$ 133,784	$ 200,676	$ 200,676	$ 535,135
2025	$ 137,760	$ 206,640	$ 206,640	$ 551,040
2026	$ 140,564	$ 210,846	$ 210,846	$ 562,257
2027	$ 142,855	$ 214,283	$ 214,283	$ 571,421
2028	$ 145,590	$ 218,385	$ 218,385	$ 582,359
2029	$ 147,426	$ 221,139	$ 221,139	$ 589,704
2030	$ 149,377	$ 224,065	$ 224,065	$ 597,508
2031	$ 150,851	$ 226,277	$ 226,277	$ 603,406
2032	$ 151,714	$ 227,571	$ 227,571	$ 606,856
2033	$ -	$ 229,444	$ 229,444	$ 458,887
2034	$ -	$ -	$ 229,150	$ 229,150
2035	$ -	$ -	$ -	$ -
2036	$ -	$ -	$ -	$ -
Totals	**$ 2,017,913**	**$ 3,098,669**	**$ 3,166,381**	**$ 8,282,963**

NOTES

Multi-Family

This is the Multifamily component of the Commercial Comprehensive Program

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	9.00	2016 M&V
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 15,000.00	
State/Local Credits Per Unit		
Gross Annual kWh Savings Per Unit	80,000	
Gross Annual kW Savings Per Unit	12.0	
	:	
Net-to-Gross	84%	
Free Ridership	16%	
Net Annual kWh Savings Per Unit	67,200.00	
Net Annual kW Savings Per Unit	10.08	
	:	
2018	20	
2019	24	
2020	24	
Total 3 Year Units / Participants	68	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 729,134	$ 863,984	$ 861,451	$ 2,454,570
NPV Benefits	$ 547,986	$ 684,066	$ 711,533	$ 1,943,585
UCT	**0.75**	**0.79**	**0.83**	**0.79**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	1,344,000	1,612,800	1,612,800	4,569,600
Cumulative kWh Savings	1,344,000	2,956,800	4,569,600	4,569,600
Lifetime kWh Savings	12,096,000	14,515,200	14,515,200	41,126,400
kW Savings	201.6	241.9	241.9	685.4
Cumulative kW Savings	201.6	443.5	685.4	685.4
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration (1)	$ 375,000	$ 450,000	$ 450,000	$ 1,275,000
Rebates	$ 300,000	$ 360,000	$ 360,000	$ 1,020,000
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 675,000	$ 810,000	$ 810,000	$ 2,295,000
Taxes	$ 31,626	$ 37,951	$ 37,951	$ 107,529
ALLOCATED COSTS				
Internal Admin	$ 41,977	$ 46,945	$ 44,317	$ 133,239
Other	$ 18,364	$ 14,780	$ 14,679	$ 47,823
M&V	$ 18,384	$ 20,921	$ 20,921	$ 60,226
Subtotal	$ 110,351	$ 120,597	$ 117,869	$ 348,817
Total PNM Costs	**$ 785,351**	**$ 930,597**	**$ 927,869**	**$ 2,643,817**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 59,082			$ 59,082
2019	$ 60,898	$ 73,077		$ 133,975
2020	$ 67,425	$ 80,911	$ 80,911	$ 229,246
2021	$ 71,153	$ 85,383	$ 85,383	$ 241,919
2022	$ 79,376	$ 95,251	$ 95,251	$ 269,877
2023	$ 79,316	$ 95,180	$ 95,180	$ 269,676
2024	$ 79,678	$ 95,614	$ 95,614	$ 270,905
2025	$ 82,533	$ 99,039	$ 99,039	$ 280,611
2026	$ 84,546	$ 101,455	$ 101,455	$ 287,457
2027	$ -	$ 103,429	$ 103,429	$ 206,858
2028	$ -	$ -	$ 105,785	$ 105,785
2029	$ -	$ -	$ -	$ -
2030	$ -	$ -	$ -	$ -
2031	$ -	$ -	$ -	$ -
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
2036	$ -	$ -	$ -	$ -
Totals	**$ 664,007**	**$ 829,339**	**$ 862,047**	**$ 2,355,393**

NOTES

Residential Comprehensive

This program includes the Home Energy Check-Up, Residential Cooling and Refrigerator Recycling components.

TECHNICAL ASSUMPTIONS		
Measure Type	Commercial	**SOURCE:**
Lifetime Years	9.31	See component pages for assumptions.
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 147.26	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	1,173	
Gross Annual kW Savings Per Unit	0.45	
Net-to-Gross	61.3%	
Free Ridership	38.7%	
Net Annual kWh Savings Per Unit	720	
Net Annual kW Savings Per Unit	0.27	
	:	
2018	14,000	
2019	15,000	
2020	14,775	
Total 3 Year Units / Participants	43,775	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 4,649,492	$ 5,241,296	$ 5,270,273	$ 15,161,061
NPV Benefits	6,413,841	7,180,915	7,395,516	$ 20,990,272
UCT	**1.38**	**1.37**	**1.40**	**1.38**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	10,074,035	10,982,537	10,838,139	31,894,711
Cumulative kWh Savings	10,074,035	21,056,572	31,894,711	31,894,711
Lifetime kWh Savings	93,812,354	103,771,273	105,273,907	302,857,534
kW Savings	3,836	4,157	4,120	12,112.7
Cumulative kW Savings	3,836	7,993	12,113	12,112.7
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	83,000	89,000	89,000	$ 261,000
3rd Party Administration	2,048,890	2,187,474	2,261,190	$ 6,497,554
Rebates	2,061,709	2,459,530	2,475,830	$ 6,997,069
Promotional Costs	200,000	250,000	200,000	$ 650,000
Subtotal	$ 4,393,600	$ 4,986,004	$ 5,026,019	$ 14,405,623
Taxes	$ 141,117	$ 150,662	$ 155,740	$ 447,519
ALLOCATED COSTS				
Internal Admin	273,233	288,971	274,985	$ 837,189
Other	81,315	90,979	91,085	$ 263,378
M&V	118,704	128,783	128,783	$ 376,269
Subtotal	$ 614,369	$ 659,396	$ 650,592	$ 1,924,356
Total PNM Costs	**$ 5,007,968**	**$ 5,645,399**	**$ 5,676,612**	**$ 16,329,979**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 644,279	$ -	$ -	$ 644,279
2019	$ 657,888	$ 715,044	$ -	$ 1,372,932
2020	$ 706,818	$ 768,386	$ 759,818	$ 2,235,021
2021	$ 734,756	$ 798,844	$ 789,876	$ 2,323,475
2022	$ 796,392	$ 866,038	$ 856,187	$ 2,518,617
2023	$ 408,467	$ 865,554	$ 855,709	$ 2,129,729
2024	$ 409,598	$ 455,132	$ 858,624	$ 1,723,353
2025	$ 418,528	$ 465,213	$ 480,118	$ 1,363,858
2026	$ 424,826	$ 472,322	$ 487,560	$ 1,384,709
2027	$ 429,971	$ 478,130	$ 493,641	$ 1,401,741
2028	$ 436,113	$ 485,063	$ 500,898	$ 1,422,074
2029	$ 440,237	$ 489,718	$ 505,772	$ 1,435,726
2030	$ 444,618	$ 494,664	$ 510,950	$ 1,450,231
2031	$ 447,930	$ 498,402	$ 514,863	$ 1,461,195
2032	$ 449,867	$ 500,589	$ 517,152	$ 1,467,608
2033	$ 45,614	$ 503,754	$ 520,466	$ 1,069,834
2034	$ 45,541	$ 45,541	$ 519,947	$ 611,029
2035	$ -	$ 45,744	$ 45,744	$ 91,488
2036	$ -	$ -	$ 45,819	$ 45,819
Totals	**$ 7,941,441**	**$ 8,948,136**	**$ 9,263,143**	**$ 26,152,719**

NOTES

Residential Cooling

This is the residential cooling component of the Residential Comprehensive Program

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	15.00	2016 M&V
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 287.35	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	1,529	
Gross Annual kW Savings Per Unit	1.2370	
	:	
Net-to-Gross	44%	
Free Ridership	56%	
Net Annual kWh Savings Per Unit	672.94	
Net Annual kW Savings Per Unit	0.54	
	:	
2018	4,150	
2019	4,450	
2020	4,450	
Total 3 Year Units / Participants	13,050	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 1,911,051	$ 2,270,158	$ 2,263,291	$ 6,444,500
NPV Benefits	$ 4,011,667	$ 4,353,480	$ 4,405,139	$ 12,770,285
UCT	**2.10**	**1.92**	**1.95**	**1.98**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	2,792,684	2,994,565	2,994,565	8,781,815
Cumulative kWh Savings	2,792,684	5,787,250	8,781,815	8,781,815
Lifetime kWh Savings	41,890,266	44,918,478	44,918,478	131,727,222
kW Savings	2,258.8	2,422.0	2,422.0	7,102.9
Cumulative kW Savings	2,258.8	4,680.8	7,102.9	7,102.9
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	$ 83,000	$ 89,000	$ 89,000	$ 261,000
3rd Party Administration	$ 346,525	$ 371,575	$ 371,575	$ 1,089,675
Rebates	$ 1,192,500	$ 1,535,000	$ 1,535,000	$ 4,262,500
Promotional Costs	$ 200,000	$ 200,000	$ 200,000	$ 600,000
Subtotal	$ 1,822,025	$ 2,195,575	$ 2,195,575	$ 6,213,175
Taxes	$ 23,867	$ 25,592	$ 25,592	$ 75,051
ALLOCATED COSTS				
Internal Admin	$ 113,309	$ 127,248	$ 120,125	$ 360,682
Other	$ 49,569	$ 40,062	$ 39,790	$ 129,421
M&V	$ 49,623	$ 56,709	$ 56,709	$ 163,041
Subtotal	$ 236,368	$ 249,612	$ 242,216	$ 728,195
Total PNM Costs	**$ 2,058,393**	**$ 2,445,187**	**$ 2,437,791**	**$ 6,941,370**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 282,171			$ 282,171
2019	$ 285,944	$ 306,615		$ 592,559
2020	$ 299,508	$ 321,159	$ 321,159	$ 941,826
2021	$ 307,253	$ 329,464	$ 329,464	$ 966,181
2022	$ 324,339	$ 347,786	$ 347,786	$ 1,019,911
2023	$ 324,216	$ 347,654	$ 347,654	$ 1,019,524
2024	$ 324,967	$ 348,459	$ 348,459	$ 1,021,886
2025	$ 330,899	$ 354,820	$ 354,820	$ 1,040,539
2026	$ 335,083	$ 359,306	$ 359,306	$ 1,053,695
2027	$ 338,501	$ 362,970	$ 362,970	$ 1,064,441
2028	$ 342,580	$ 367,345	$ 367,345	$ 1,077,270
2029	$ 345,319	$ 370,282	$ 370,282	$ 1,085,884
2030	$ 348,230	$ 373,403	$ 373,403	$ 1,095,036
2031	$ 350,430	$ 375,762	$ 375,762	$ 1,101,953
2032	$ 351,716	$ 377,142	$ 377,142	$ 1,106,000
2033	$ -	$ 379,139	$ 379,139	$ 758,277
2034	$ -	$ -	$ 378,826	$ 378,826
2035	$ -	$ -	$ -	$ -
2036	$ -	$ -	$ -	$ -
Totals	**$ 4,891,158**	**$ 5,321,305**	**$ 5,393,516**	**$ 15,605,979**

NOTES

Refrigerator Recycling

This is the refrigerator recycling component of the Residential Comprehensive Program

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	5.00	2016 M&V
Incremental Cost Per Unit		
Rebate Cost Per Unit	$ 50.33	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	1,079	
Gross Annual kW Savings Per Unit	0.2490	
	:	
Net-to-Gross	68%	
Free Ridership	32%	
Net Annual kWh Savings Per Unit	733.72	
Net Annual kW Savings Per Unit	0.17	
	:	
2018	8,000	
2019	8,500	
2020	8,000	
Total 3 Year Units / Participants	24,500	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 1,258,613	$ 1,445,881	$ 1,311,875	$ 4,016,369
NPV Benefits	$ 1,454,352	$ 1,621,183	$ 1,595,956	$ 4,671,492
UCT	**1.16**	**1.12**	**1.22**	**1.16**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	5,869,760	6,236,620	5,869,760	17,976,140
Cumulative kWh Savings	5,869,760	12,106,380	17,976,140	17,976,140
Lifetime kWh Savings	29,348,800	31,183,100	29,348,800	89,880,700
kW Savings	1,355	1,439	1,355	4,148
Cumulative kW Savings	1,355	2,794	4,148	4,148
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 764,276	$ 880,345	$ 828,560	$ 2,473,181
Rebates	$ 402,640	$ 427,805	$ 402,640	$ 1,233,085
Promotional Costs	$ -	$ 50,000	$ -	$ 50,000
Subtotal	$ 1,166,916	$ 1,358,150	$ 1,231,200	$ 3,756,266
Taxes	$ 52,640	$ 60,634	$ 57,067	$ 170,341
ALLOCATED COSTS				
Internal Admin	$ 72,569	$ 78,714	$ 67,362	$ 218,645
Other	$ 31,746	$ 24,782	$ 22,313	$ 78,841
M&V	$ 31,781	$ 35,079	$ 35,079	$ 101,940
Subtotal	$ 188,736	$ 199,209	$ 181,821	$ 569,766
Total PNM Costs	**$ 1,355,652**	**$ 1,557,359**	**$ 1,413,021**	**$ 4,326,032**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 299,109			$ 299,109
2019	$ 307,039	$ 326,229		$ 633,268
2020	$ 335,548	$ 356,520	$ 335,548	$ 1,027,616
2021	$ 351,827	$ 373,816	$ 351,827	$ 1,077,470
2022	$ 387,740	$ 411,973	$ 387,740	$ 1,187,453
2023	$ -	$ 411,698	$ 387,481	$ 799,179
2024	$ -	$ -	$ 389,060	$ 389,060
2025	$ -	$ -	$ -	$ -
2026	$ -	$ -	$ -	$ -
2027	$ -	$ -	$ -	$ -
2028	$ -	$ -	$ -	$ -
2029	$ -	$ -	$ -	$ -
2030	$ -	$ -	$ -	$ -
2031	$ -	$ -	$ -	$ -
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
2036	$ -	$ -	$ -	$ -
Totals	**$ 1,681,263**	**$ 1,880,237**	**$ 1,851,655**	**$ 5,413,155**

NOTES

Home Energy Check-Up

This is the home energy check-up component of the Residential Comprehensive Program

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	15.99	Assumptions based on 2016 M&V and NM TRM values
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 252.20	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	780	
Gross Annual kW Savings Per Unit	0.12	
Net-to-Gross	97.8%	
Free Ridership	2.2%	
Net Annual kWh Savings Per Unit	763	
Net Annual kW Savings Per Unit	0.12	
	:	
2015	1,850	
2016	2,050	
2017	2,325	
Total 3 Year Units / Participants	6,225	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 1,479,829	$ 1,525,257	$ 1,695,107	$ 4,700,192
NPV Benefits	$ 947,822	$ 1,206,252	$ 1,394,421	$ 3,548,495
UCT	**0.64**	**0.79**	**0.82**	**0.75**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	1,411,591	1,751,351	1,973,814	5,136,756
Cumulative kWh Savings	1,411,591	3,162,942	5,136,756	5,136,756
Lifetime kWh Savings	22,573,288	27,669,695	31,006,629	81,249,612
kW Savings	223	296	343	861.5
Cumulative kW Savings	223	518	861	861.5
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	-	-	-	$ -
3rd Party Administration	938,089	935,554	1,061,055	$ 2,934,698
Rebates	466,569	496,725	538,190	$ 1,501,484
Promotional Costs	-	-	-	$ -
Subtotal	$ 1,404,659	$ 1,432,279	$ 1,599,244	$ 4,436,182
Taxes	64,611	64,436	73,080	$ 202,127
ALLOCATED COSTS				
Internal Admin	87,354	83,010	87,498	$ 257,862
Other	-	26,135	28,982	$ 55,117
M&V	37,300	36,994	36,994	$ 111,289
Subtotal	$ 189,265	$ 210,575	$ 226,555	$ 626,395
Total PNM Costs	**$ 1,593,924**	**$ 1,642,854**	**$ 1,825,800**	**$ 5,062,577**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2013	$ 62,998	$ -	$ -	$ 62,998
2014	$ 64,905	$ 82,200	$ -	$ 147,105
2015	$ 71,761	$ 90,706	$ 103,111	$ 265,579
2016	$ 75,676	$ 95,563	$ 108,585	$ 279,825
2017	$ 84,313	$ 106,279	$ 120,661	$ 311,253
2018	$ 84,250	$ 106,202	$ 120,574	$ 311,026
2019	$ 84,630	$ 106,673	$ 121,105	$ 312,408
2020	$ 87,628	$ 110,393	$ 125,298	$ 323,319
2021	$ 89,743	$ 113,016	$ 128,255	$ 331,014
2022	$ 91,470	$ 115,159	$ 130,670	$ 337,300
2023	$ 93,533	$ 117,718	$ 133,553	$ 344,804
2024	$ 94,917	$ 119,436	$ 135,490	$ 349,842
2025	$ 96,388	$ 121,261	$ 137,547	$ 355,196
2026	$ 97,500	$ 122,640	$ 139,101	$ 359,242
2027	$ 98,151	$ 123,447	$ 140,011	$ 361,609
2028	$ 45,614	$ 124,615	$ 141,327	$ 311,557
2029	$ 45,541	$ 45,541	$ 141,121	$ 232,203
2030	$ -	$ 45,744	$ 45,744	$ 91,488
2031	$ -	$ -	$ 45,819	$ 45,819
Totals	**$ 1,369,020**	**$ 1,746,594**	**$ 2,017,972**	**$ 5,133,585**

NOTES

Residential Lighting

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	14.00	2015 & 2016 M&V
Incremental Cost Per Unit		
Rebate Cost Per Unit	$ 2.37	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	26.46	
Gross Annual kW Savings Per Unit	0.0035	
	:	
Net-to-Gross	69.7%	
Free Ridership	30%	
Net Annual kWh Savings Per Unit	18.44	
Net Annual kW Savings Per Unit	0.0024	
	:	
2018	900,000	
2019	1,000,000	
2020	1,000,000	
Total 3 Year Units / Participants	1,000,000	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 2,934,080	$ 3,321,640	$ 3,191,544	$ 9,447,264
NPV Benefits	$ 8,755,051	$ 10,042,898	$ 10,361,685	$ 29,159,633
UCT	**2.98**	**3.02**	**3.25**	**3.09**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	16,598,358	18,442,620	18,442,620	53,483,598
Cumulative kWh Savings	16,598,358	35,040,978	53,483,598	53,483,598
Lifetime kWh Savings	232,377,012	258,196,680	258,196,680	748,770,372
kW Savings	2,195.6	2,439.5	2,439.5	7,074.6
Cumulative kW Savings	2,195.6	4,635.1	7,074.6	7,074.6
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS	3.15%			
Rebate Processing	$ 67,190	$ 74,655	$ 74,655	$ 216,500
3rd Party Administration	$ 580,098	$ 609,103	$ 627,376	$ 1,816,577
Rebates	$ 2,133,000	$ 2,370,000	$ 2,370,000	$ 6,873,000
Promotional Costs	$ 10,000	$ 150,000	$ 10,000	$ 170,000
Subtotal	$ 2,790,287	$ 3,203,758	$ 3,082,031	$ 9,076,076
Taxes	$ 44,582	$ 47,094	$ 48,352	$ 140,028
ALLOCATED COSTS				
Internal Admin	$ 173,525	$ 185,679	$ 168,625	$ 527,828
Other	$ 75,911	$ 58,458	$ 55,854	$ 190,223
M&V	$ 75,993	$ 82,749	$ 82,749	$ 241,492
Subtotal	$ 370,010	$ 373,980	$ 355,581	$ 1,099,572
Total PNM Costs	**$ 3,160,298**	**$ 3,577,738**	**$ 3,437,612**	**$ 10,175,648**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 704,171			$ 704,171
2019	$ 726,594	$ 807,327		$ 1,533,922
2020	$ 807,212	$ 896,902	$ 896,902	$ 2,601,017
2021	$ 853,244	$ 948,049	$ 948,049	$ 2,749,343
2022	$ 954,798	$ 1,060,887	$ 1,060,887	$ 3,076,571
2023	$ 954,066	$ 1,060,074	$ 1,060,074	$ 3,074,213
2024	$ 958,531	$ 1,065,034	$ 1,065,034	$ 3,088,599
2025	$ 993,787	$ 1,104,208	$ 1,104,208	$ 3,202,203
2026	$ 1,018,652	$ 1,131,836	$ 1,131,836	$ 3,282,324
2027	$ 1,038,964	$ 1,154,405	$ 1,154,405	$ 3,347,774
2028	$ 1,063,212	$ 1,181,346	$ 1,181,346	$ 3,425,904
2029	$ 1,079,493	$ 1,199,436	$ 1,199,436	$ 3,478,365
2030	$ 1,096,790	$ 1,218,656	$ 1,218,656	$ 3,534,103
2031	$ 1,109,865	$ 1,233,183	$ 1,233,183	$ 3,576,230
2032	$ -	$ 1,241,681	$ 1,241,681	$ 2,483,362
2033	$ -	$ -	$ 1,253,980	$ 1,253,980
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
2036	$ -	$ -	$ -	$ -
Totals	**$13,359,380**	**$15,303,024**	**$15,749,677**	**$ 44,412,081**

NOTES

New Home Construction

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	17.00	Savings data based on vendor proposal
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 500.00	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	1,050	
Gross Annual kW Savings Per Unit	0.376	
Net-to-Gross	80.0%	
Free Ridership	20%	
Net Annual kWh Savings Per Unit	840.00	
Net Annual kW Savings Per Unit	0.301	
	:	
2018	1,000	
2019	1,025	
2020	1,025	
Total 3 Year Units / Participants	3,050	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 708,932	$ 718,007	$ 715,799	$ 2,142,738
NPV Benefits	$ 794,707	$ 829,515	$ 844,470.04	$ 2,468,692
UCT	**1.12**	**1.16**	**1.18**	**1.15**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	840,000	861,000	861,000	2,562,000
Cumulative kWh Savings	840,000	1,701,000	2,562,000	2,562,000
Lifetime kWh Savings	14,280,000	14,637,000	14,637,000	43,554,000
kW Savings	300.9	308.4	308.4	917.6
Cumulative kW Savings	300.9	609.2	917.6	917.6
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 188,984	$ 193,708	$ 193,708	$ 576,400
Rebates	$ 500,000	$ 512,500	$ 512,500	$ 1,525,000
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 688,984	$ 706,208	$ 706,208	$ 2,101,400
Taxes	$ 13,016	$ 13,342	$ 13,342	$ 39,700
ALLOCATED COSTS				
Internal Admin	$ 42,847	$ 40,929	$ 38,638	$ 122,415
Other	$ 18,744	$ 12,886	$ 12,798	$ 44,428
M&V	$ -	$ -	$ -	$ -
Subtotal	$ 74,607	$ 67,157	$ 64,778	$ 206,543
Total PNM Costs	**$ 763,591**	**$ 773,365**	**$ 770,987**	**$ 2,307,943**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 52,076			$ 52,076
2019	$ 53,211	$ 54,541		$ 107,752
2020	$ 57,291	$ 58,723	$ 58,723	$ 174,736
2021	$ 59,620	$ 61,111	$ 61,111	$ 181,841
2022	$ 64,759	$ 66,378	$ 66,378	$ 197,516
2023	$ 64,722	$ 66,340	$ 66,340	$ 197,403
2024	$ 64,948	$ 66,572	$ 66,572	$ 198,092
2025	$ 66,733	$ 68,401	$ 68,401	$ 203,534
2026	$ 67,991	$ 69,691	$ 69,691	$ 207,372
2027	$ 69,019	$ 70,744	$ 70,744	$ 210,508
2028	$ 70,246	$ 72,002	$ 72,002	$ 214,250
2029	$ 71,070	$ 72,847	$ 72,847	$ 216,763
2030	$ 71,945	$ 73,744	$ 73,744	$ 219,433
2031	$ 72,607	$ 74,422	$ 74,422	$ 221,451
2032	$ 72,994	$ 74,819	$ 74,819	$ 222,632
2033	$ 73,554	$ 75,393	$ 75,393	$ 224,340
2034	$ 73,466	$ 75,303	$ 75,303	$ 224,073
2035	$ -	$ 75,553	$ 75,553	$ 151,105
2036	$ -	$ -	$ 75,645	$ 75,645
Totals	**$ 1,126,253**	**$ 1,176,584**	**$ 1,197,688**	**$ 3,500,524**

NOTES

PNM Home Works

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	SOURCE:
Lifetime Years	10.00	2016 M&V
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 30.00	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	205.0	
Gross Annual kW Savings Per Unit	0.0097	
	:	
Net-to-Gross	100.0%	
Free Ridership	0%	
Net Annual kWh Savings Per Unit	205.00	
Net Annual kW Savings Per Unit	0.01	
	:	
2018	9,500	
2019	10,500	
2020	10,500	
Total 3 Year Units / Participants	30,500	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 509,059	$ 534,504	$ 532,904	$ 1,576,468
NPV Benefits	$ 677,888	$ 785,881	$ 823,288	$ 2,287,057
UCT	1.33	1.47	1.54	1.45

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	1,947,500	2,152,500	2,152,500	6,252,500
Cumulative kWh Savings	1,947,500	4,100,000	6,252,500	6,252,500
Lifetime kWh Savings	19,475,000	21,525,000	21,525,000	62,525,000
kW Savings	91.9	101.5	101.5	294.9
Cumulative kW Savings	91.9	193.4	294.9	294.9
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 196,604	$ 196,604	$ 196,604	$ 589,811
Rebates	$ 285,000	$ 315,000	$ 315,000	$ 915,000
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 481,604	$ 511,604	$ 511,604	$ 1,504,811
Taxes	$ 23,652	$ 25,125	$ 25,125	$ 73,903
ALLOCATED COSTS				
Internal Admin	$ 29,950	$ 29,651	$ 27,991	$ 87,592
Other	$ 13,102	$ 9,335	$ 9,272	$ 31,709
M&V	$ -	$ -	$ -	$ -
Subtotal	$ 66,704	$ 64,111	$ 62,388	$ 193,204
Total PNM Costs	$ 548,308	$ 575,715	$ 573,991	$ 1,698,014

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2018	$ 68,261			$ 68,261
2019	$ 70,892	$ 78,355		$ 149,247
2020	$ 80,351	$ 88,809	$ 88,809	$ 257,969
2021	$ 85,752	$ 94,779	$ 94,779	$ 275,310
2022	$ 97,668	$ 107,948	$ 107,948	$ 313,564
2023	$ 97,582	$ 107,853	$ 107,853	$ 313,288
2024	$ 98,105	$ 108,432	$ 108,432	$ 314,970
2025	$ 102,242	$ 113,004	$ 113,004	$ 328,251
2026	$ 105,160	$ 116,229	$ 116,229	$ 337,618
2027	$ 107,543	$ 118,863	$ 118,863	$ 345,269
2028	$ -	$ 122,008	$ 122,008	$ 244,015
2029	$ -	$ -	$ 124,119	$ 124,119
2030	$ -	$ -	$ -	$ -
2031	$ -	$ -	$ -	$ -
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
2036	$ -	$ -	$ -	$ -
Totals	$ 913,556	$ 1,056,281	$ 1,102,045	$ 3,071,881

NOTES

Easy Savings Kits

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	SOURCE:
Lifetime Years	10.00	2016 M&V
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 30.00	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	333	
Gross Annual kW Savings Per Unit	0.036	
	:	
Net-to-Gross	100%	
Free Ridership	0%	
Net Annual kWh Savings Per Unit	332.60	
Net Annual kW Savings Per Unit	0.04	
	:	
2018	6,200	
2019	6,500	
2020	6,000	
Total 3 Year Units / Participants	18,700	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 372,269	$ 385,388	$ 355,366	$ 1,113,023
NPV Benefits	$ 928,464	$ 1,014,275	$ 974,787	$ 2,917,526
UCT	2.49	2.63	2.74	2.62

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	2,062,120	2,161,900	1,995,600	6,219,620
Cumulative kWh Savings	2,062,120	4,224,020	6,219,620	6,219,620
Lifetime kWh Savings	20,621,200	21,619,000	19,956,000	62,196,200
kW Savings	223.2	234.0	216.0	673.2
Cumulative kW Savings	223.2	457.2	673.2	673.2
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 146,382	$ 153,465	$ 141,660	$ 441,507
Rebates	$ 186,000	$ 195,000	$ 180,000	$ 561,000
Promotional Costs	$ 12,090	$ 12,675	$ 11,700	$ 36,465
Subtotal	$ 344,472	$ 361,140	$ 333,360	$ 1,038,972
Taxes	$ 16,324	$ 17,113	$ 15,797	$ 49,234
ALLOCATED COSTS				
Internal Admin	$ 21,422	$ 20,930	$ 18,239	$ 60,592
Other	$ 9,371	$ 6,590	$ 6,041	$ 22,002
M&V	$ 9,382	$ 9,328	$ 9,328	$ 28,037
Subtotal	$ 56,499	$ 53,961	$ 49,405	$ 159,865
Total PNM Costs	**$ 400,971**	**$ 415,101**	**$ 382,765**	**$ 1,198,837**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2013	$ 83,189			$ 83,189
2014	$ 85,975	$ 90,135		$ 176,110
2015	$ 95,991	$ 100,635	$ 92,894	$ 289,520
2016	$ 101,710	$ 106,631	$ 98,429	$ 306,769
2017	$ 114,326	$ 119,858	$ 110,638	$ 344,822
2018	$ 114,235	$ 119,763	$ 110,550	$ 344,548
2019	$ 114,790	$ 120,344	$ 111,087	$ 346,221
2020	$ 119,170	$ 124,936	$ 115,326	$ 359,432
2021	$ 122,259	$ 128,175	$ 118,315	$ 368,749
2022	$ 124,783	$ 130,821	$ 120,757	$ 376,361
2023	$ -	$ 133,979	$ 123,673	$ 257,651
2024	$ -	$ -	$ 125,630	$ 125,630
2025	$ -	$ -	$ -	$ -
2026	$ -	$ -	$ -	$ -
2027	$ -	$ -	$ -	$ -
2028	$ -	$ -	$ -	$ -
2029	$ -	$ -	$ -	$ -
2030	$ -	$ -	$ -	$ -
2031	$ -	$ -	$ -	$ -
Totals	**$ 1,076,427**	**$ 1,175,277**	**$ 1,127,299**	**$ 3,379,004**

NOTES

Energy Smart (MFA)

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	17.08	2016 M&V and MFA proposal
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 66.13	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	123	
Gross Annual kW Savings Per Unit	0.01	
Net-to-Gross	100.0%	
Free Ridership	0.0%	
Net Annual kWh Savings Per Unit	123	
Net Annual kW Savings Per Unit	0.01	
	:	
2018	2,835	
2019	2,850	
2020	2,850	
Total 3 Year Units / Participants	8,535	

	2018	2019	2020	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2018	2019	2020	TOTALS
NPV Cost	$ 203,370	$ 220,066	$ 219,378	$ 642,814
NPV Benefits	$ 242,015	$ 263,001	$ 265,209	$ 770,224
UCT	**1.19**	**1.20**	**1.21**	**1.20**

SAVINGS	2018	2019	2020	TOTALS
Incremental (Annual) kWh Savings	348,626	366,731	366,731	1,082,089
Cumulative kWh Savings	348,626	715,358	1,082,089	1,082,089
Lifetime kWh Savings	5,954,595	6,280,485	6,280,485	18,515,565
kW Savings	38	40	40	117.2
Cumulative kW Savings	38	77	117	117.2
	:	:	:	:

PNM COSTS	2018	2019	2020	TOTALS
DIRECT COSTS				
Rebate Processing	-	-	-	$ -
3rd Party Administration	18,748	20,023	20,023	$ 58,793
Rebates	187,477	200,227	200,227	$ 587,931
Promotional Costs	-	-	-	$ -
Subtotal	$ 206,225	$ 220,250	$ 220,250	$ 646,725
Taxes	-	-	-	$ -
ALLOCATED COSTS				
Internal Admin	12,825	12,765	12,050	$ 37,640
Other	-	4,019	3,991	$ 8,010
M&V	-	-	-	$ -
Subtotal	$ 12,825	$ 16,784	$ 16,042	$ 45,651
Total PNM Costs	**$ 219,050**	**$ 237,034**	**$ 236,292**	**$ 692,375**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2018	2019	2020	TOTALS
2013	$ 14,057	$ -	$ -	$ 14,057
2014	$ 14,528	$ 15,295	$ -	$ 29,823
2015	$ 16,221	$ 17,076	$ 17,076	$ 50,373
2016	$ 17,188	$ 18,093	$ 18,093	$ 53,374
2017	$ 19,321	$ 20,337	$ 20,337	$ 59,995
2018	$ 19,306	$ 20,321	$ 20,321	$ 59,947
2019	$ 19,399	$ 20,419	$ 20,419	$ 60,238
2020	$ 20,140	$ 21,198	$ 21,198	$ 62,536
2021	$ 20,662	$ 21,748	$ 21,748	$ 64,157
2022	$ 21,089	$ 22,196	$ 22,196	$ 65,482
2023	$ 21,598	$ 22,732	$ 22,732	$ 67,062
2024	$ 21,940	$ 23,092	$ 23,092	$ 68,124
2025	$ 22,303	$ 23,474	$ 23,474	$ 69,251
2026	$ 22,578	$ 23,763	$ 23,763	$ 70,104
2027	$ 22,739	$ 23,932	$ 23,932	$ 70,602
2028	$ 18,397	$ 24,176	$ 24,176	$ 66,750
2029	$ 18,368	$ 19,571	$ 24,138	$ 62,077
2030	$ 10,880	$ 19,658	$ 19,658	$ 50,195
2031	$ -	$ 12,108	$ 19,690	$ 31,797
Totals	**$ 340,711**	**$ 369,189**	**$ 366,043**	**$ 1,075,943**

NOTES

2018 Energy Efficiency Program Filing
Load Management Programs

Power Saver

Year	Event Hours	MW Capacity (Customer)	MW Capacity (Generator)	EE MWh Saved	Event MWh Saved	Capacity Cost	Event Cost	Rebates (included in cap. cost)	Admin & Other	M&V	GRT	Annual Cost	Avoided Cost Capacity	Avoided Cost Energy	Annual Benefit	UCT	Annual Energy Benefit	Annual Capacity Benefit
2018	40	45.00	48.74	300	450	$ 3,735,000	$162,000	$ 1,350,000	$ 121,175	$ 100,454	$ 175,425	$ 4,294,054	$ 80.00	$ 0.0286	$ 3,920,361	1.13	$ 21,561	$ 3,898,800
2019	40	50.00	54.15	600	500	$ 4,150,000	$180,000	$ 1,500,000	$164,980	$ 107,880	$ 194,916	$ 4,797,776	$ 80.00	$ 0.0298	$ 4,365,002	1.08	$ 33,002	$ 4,332,000
2020	40	50.00	54.15	1,500	500	$ 4,300,000	$180,000	$ 1,500,000	$163,150	$ 107,880	$ 205,248	$ 4,956,277	$ 80.00	$ 0.0343	$ 4,401,022	1.04	$ 69,022	$ 4,332,000
2021	40	52.00	56.32	2,400	520	$ 4,472,000	$187,200	$ 1,560,000	$163,150	$107,880	$ 213,458	$ 5,143,687	$ 80.00	$ 0.0369	$ 4,613,570	1.01	$ 108,290	$ 4,505,280
2022	40	55.00	59.57	3,000	550	$ 4,730,000	$198,000	$ 1,650,000	$163,150	$107,880	$ 225,772	$ 5,424,802	$ 80.00	$ 0.0425	$ 4,917,020	0.98	$ 151,820	$ 4,765,200
Annual NPV & UCT												**$ 3,930,429**			**$ 4,443,395**	**1.13**		

Peak Saver

Year	Event Hours	MW Capacity (Customer)	MW Capacity (Generator)	EE MWh Saved	Event MWh Saved	Capacity Cost	Event Cost	Rebates (included in cap. cost)	Admin & Other	M&V	GRT	Annual Cost	Avoided Cost Capacity	Avoided Cost Energy	Annual Benefit	UCT	Annual Energy Benefit	Annual Capacity Benefit
2018	40	15.00	16.25		600	$ 1,245,000	$ 90,000	$ 600,000	$ 41,511	$ 34,413	$ 50,623	$ 1,461,547	$ 80.00	$ 0.0286	$ 1,316,848	1.13	$ 17,248	$ 1,299,600
2019	40	18.00	19.49		720	$ 1,494,000	$108,000	$ 720,000	$ 61,039	$ 39,913	$ 60,748	$ 1,763,700	$ 80.00	$ 0.0298	$ 1,581,121	1.08	$ 21,601	$ 1,559,520
2020	40	20.00	21.66		800	$ 1,660,000	$120,000	$ 800,000	$ 64,823	$ 39,913	$ 67,498	$ 1,952,234	$ 80.00	$ 0.0343	$ 1,760,409	1.05	$ 27,609	$ 1,732,800
2021	40	20.00	21.66		800	$ 1,660,000	$120,000	$ 800,000	$ 64,823	$ 39,913	$ 67,498	$ 1,952,234	$ 80.00	$ 0.0369	$ 1,762,469	1.01	$ 29,669	$ 1,732,800
2022	40	20.00	21.66		800	$ 1,660,000	$120,000	$ 800,000	$ 64,823	$ 39,913	$ 67,498	$ 1,952,234	$ 80.00	$ 0.0425	$ 1,767,013	0.97	$ 34,213	$ 1,732,800
Annual NPV & UCT												**$ 1,447,315**			**$ 1,637,572**	**1.13**		