2017

ENERGY EFFICIENCY AND

LOAD MANAGEMENT

PROGRAM PLAN

NMPRC CASE NO. 16-00XXX-UT

APRIL 15, 2016

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1 EXECUTIVE SUMMARY

PNM began offering Energy Efficiency (EE) and Load Management (LM) programs to residential and commercial customers in October 2007, with the approval of 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 and in Case No. 14-00310-UT in April 2015. Table 1-1 summarizes the program results from 2008 through 2015. Detailed analyses of the most recent year's results (2015) are available in PNM's annual EE and LM program report and measurement and verification report filed concurrently with this Plan and also at www.pnm.com/regulatory.

Table 1-1

Historical Calendar Year Results	2008	2009	2010	2011
Portfolio Benefit Cost Ratio**	2.71	1.56	2.20	1.78
Incremental Annual Energy Savings*	35.2GWh	39.9 GWh	58.8 GWh	57.6 GWh
Peak Demand Reduction*	7.5 MW	6.3 MW	9.9 MW	9.7 MW
Dispatchable Capacity (DR)	47 MW	53 MW	67 MW	57 MW
Total Program Expenses ($M)	$8	$12	$16.60	$16.60

Historical Calendar Year Results	2012	2013	2014	2015
Portfolio Benefit Cost Ratio**	2.85	1.91	1.74	1.79
Incremental Annual Energy Savings*	79.3 GWh	75.6 GWH	74.8 GWH	79.3 GWH
Peak Demand Reduction*	13.6 MW	11.8 MW	12.0 MW	12.1 MW
Dispatchable Capacity (DR)	57.4 MW	62.4 MW	60.9 MW	57.1 MW
Total Program Expenses ($M)	$17.30	$18.11	$21.69	$24.28

* Savings at the customer meter. Savings at the generator include an additional 7% system losses.
** Utility Cost Test applied in 2015; Total Resource Cost applied in prior years.

The 2017 Energy Efficiency and Load Management Program Plan (2017 Plan) contains the description of the PNM portfolio of energy efficiency programs. The 2017 Plan presents updated participation targets and budgets for existing programs approved by the NMPRC in Case No. 14-00310-UT, proposed modifications and additions to existing programs and one new program. The 2017 Plan is proposed 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).

All programs proposed in this plan were selected according to 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 the program changes and the new program being proposed. PNM developed the portfolio of programs to appeal to various segments of residential customers, including low-income customers. The 2017 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 2017 Plan has a total projected 12-month budget of $28,013,066 with projected energy savings of approximately 75 gigawatt-hours (GWh). Table 1-2 shows the projected 12-month budget, energy and demand savings, participation targets and the UCT ratios for each program and the total portfolio.

Table 1-2

Program	Budget	kWh Savings	kW Savings	Participants or Units	UCT
Commercial Comprehensive	$9,185,576	41,868,084	5,306	1,403	1.95
Residential Comprehensive	$5,929,488	11,950,203	5,250	15,619	1.58
Residential Lighting	$3,657,779	16,189,592	1,865	850,000	2.36
PNM Home Works	$552,786	1,677,040	34	9,500	1.08
New Home Construction	616,198	719,280	211	700	1.06
Energy Smart (MFA)	$215,576	300,551	40	2,605	1.13
Easy Savings Kit	$396,902	1,148,984	80	6,200	1.89
Power Saver	$4,903,237	600,000	48,000	39,000	1.22
Peak Saver	$1,942,175	900,000	18,000	110	1.16
Market Transformation	$613,350	-	-		n/a
TOTAL	**$28,013,066**	**75,353,733**	**78,785**		**1.66**

1.1 SUMMARY OF CHANGES FROM PREVIOUS PLAN

PNM is proposing the following changes in the 2017 Plan compared to the plan approved in Case No. 14-00310-UT:

- *The total budget increases by 7% to $28,013,066 meeting the EUEA 3% funding requirement*
- *One new program is proposed, the New Home Construction program*
- *Program budgets are increased for most existing programs*
- *Up to 80 % of Residential Lighting rebates are projected to be for LED bulbs*
- *Refrigerator Recycling program to continue under a new third-party contractor (ARCA)*
- *Residential cooling rebates are increased and expanded to include heat pumps and mini-split systems*
- *Home Energy Checkup program is continued under new third-party contractor (ICF) with new incentives*
- *Incentives are increased in QuickSaver small business program*
- *Incentives for commercial customer technology proposals*
- *Enhanced initiative for trade ally outreach, coordination and support*
- *Focused customer analytics effort for cost-effective outreach and messaging*
- *Updated energy efficiency potential study*

2 PROGRAM GOALS

2.1 LEAST-COST RESOURCE PLANNING

PNM energy efficiency and load management programs provide numerous benefits to the PNM system, participating customers, non-participating customers, the environment and the New Mexico economy. The programs are a key resource in the PNM 2014 Integrated Resource Plan (2014 IRP). 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. Energy efficiency and load management programs were consistently found to be cost-effective alternatives when compared to meeting system needs 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."[1]

2.2 REQUIREMENTS OF THE EFFICIENT USE OF ENERGY ACT

The most cost-effective resource portfolio in the 2014 IRP includes projected impacts of the 2017 Plan and projected growth of the programs that will allow PNM to achieve the minimum energy saving goals and target budget levels specified in the Efficient Use of Energy Act. The Act requires that PNM achieve cumulative savings of at least 411 GWh in 2014, which is equivalent to five percent (5%) of PNM's retail sales in 2005, and at least 658 GWH in 2020, or 8% of 2005 retail sales.

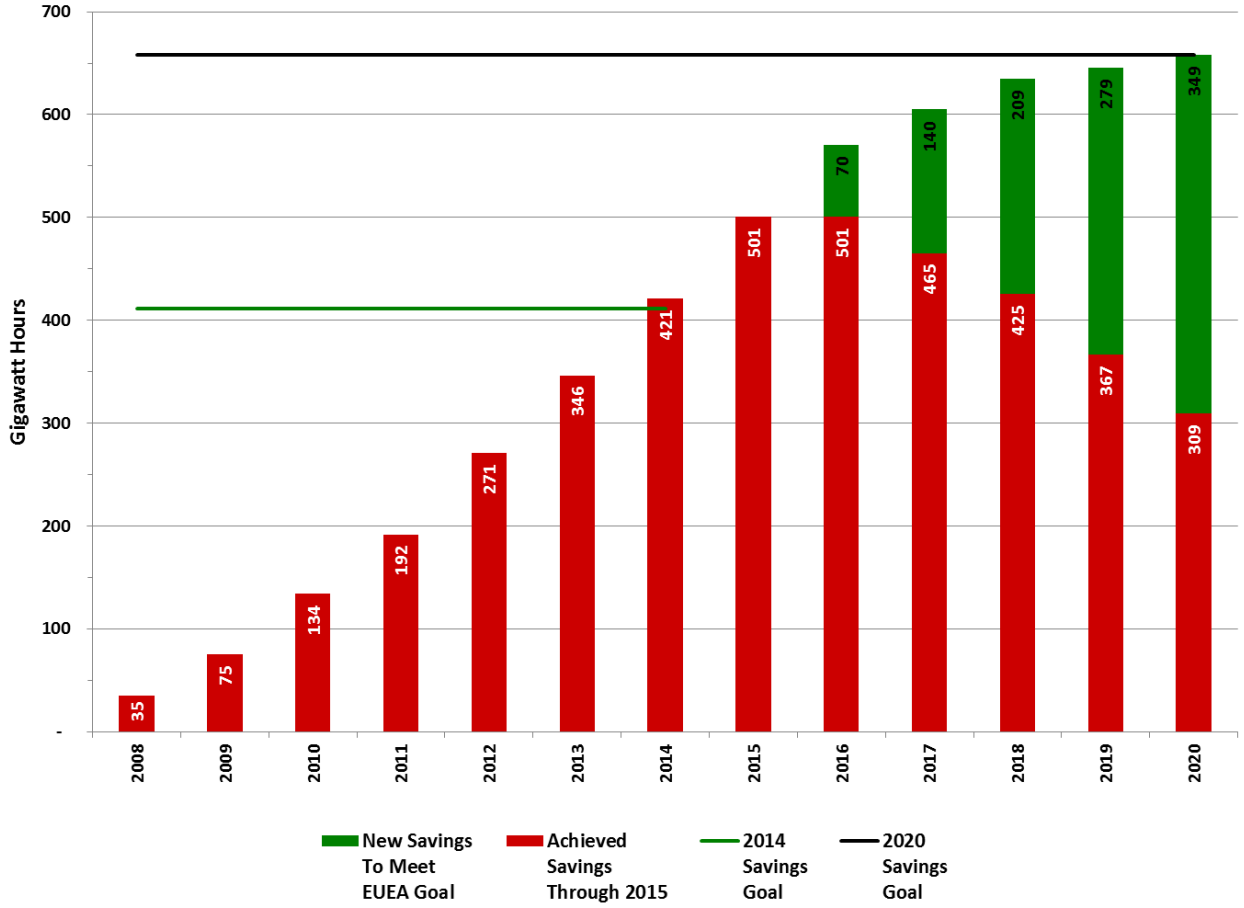
New programs are developed according to the specifications included in the Act and the Rule, which includes passing the UCT cost-effectiveness test. PNM reported in 2015 that it had exceeded the 411 GWh of minimum savings specified in the Act for 2014[2]. As of year-end 2015, PNM's approved EE programs are achieving cumulative annual "net" energy savings of about 501 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).

The energy efficiency measures installed by PNM customers through participation in PNM programs in any specific year will continue to save energy in years to come. However, for cost-effectiveness analysis and for purposes of determining the cumulative savings applicable to the EUEA goals in 2014 and 2020, the average EUL of the portfolio is applied. The average EUL for the portfolio is determined by dividing the total lifetime savings by the annual savings. The average portfolio EUL for the 2015 Program was nine years, which is the same as all previous years from 2008 through 2014. Therefore, cumulative savings for 2015 are the sum of all annual savings beginning in 2008. Beginning in 2017, the 2008 annual savings will no longer contribute to the cumulative savings since the nine year life for those savings will end in 2016. PNM programs will have to achieve on average 70 GWH of annual savings in years 2016 through 2020 in order to achieve the 2020 minimum savings goal of 658 GWH. Figure 2-1 shows the annual cumulative savings achieved through 2015 and the new savings needed to achieve the EUEA goal in 2020.

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

[2] "PNM Energy Efficiency Program 2014 Annual Report", March 2, 2015. http://www.pnm.com/regulatory

Figure 2-1



2.3 INCREASED ADOPTION OF ENERGY EFFICIENCY TECHNOLOGIES

In addition to meeting the requirements of the Act, PNM works, through its energy efficiency programs, to encourage lasting structural and behavioral changes in the marketplace. 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. The programs included in the 2017 Plan address these objectives by:

- Implementing multi-channel promotional campaigns that increase customer awareness of energy efficiency products and their benefits;
- Informing and training the retail and contractor networks to help build awareness and encourage participation within the vendor community;
- Partnering with community-based organizations to help inform and educate customers;
- Using rebates to shift the focus from the initial cost of installing measures to the long-term savings in operating costs;
- Facilitating the rebate process to make participation simple for customers;

- Broadening low-income programs to enhance this customer segment's participation in EE programs by building awareness of energy efficient products, their benefits, and the expected savings; and

- Implementing educational programs for different customer segments about the benefits of the EE programs.

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)[3] which was consulted in the selection of programs for this plan. PNM also conducted secondary product, program and market research, such as the 2013 Residential Appliance Saturation Survey[4]. PNM used this survey to validate various assumptions regarding customer demographics and the prevalence of HVAC and appliance technologies among PNM customers. PNM is proposing to update the potential study for the PNM service territory as an initiative in the 2017 Plan. The updated potential study would be used as a reference for future program design and analysis.

Much of the research for the 2017 Plan was conducted through interaction 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), Electric Power Research Institute (EPRI) and the Institute for Electric Efficiency (IEE).

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. Public advisory group meetings were held on November 10, 2015 and March 8, 2016 to assist in the development of the 2017 Plan. PNM also had discussions with, and received information from, several individual members of the advisory group on separate occasions.

3.2 SELECTION CRITERIA

The following criteria were considered when selecting new programs and evaluating existing programs:

A. *Cost effectiveness – The Act establishes the 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."[5] Any program with a UCT greater than 1.0 is cost effective.*

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

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

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

[5] NMSA 1978 § 62-17-4(K*)*

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 2017 Plan meet the cost-effectiveness criteria and have a UCT greater than 1.0.

B. System benefits – programs should deliver system benefits through demand and energy savings or availability of load that can be dispatched or shifted to off-peak times.

The programs selected for the 2017 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 2017 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 2017 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 2017 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 2017 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

Cost-effectiveness is determined through calculation of the UCT ratio, the ratio of projected program benefits to projected program costs, for each program and for the portfolio of programs. Amendments to the EUEA in 2013 changed the required cost-effectiveness test from the TRC to the UCT. The UCT measures the costs and benefits directly related to the utility offering the programs.

PNM has developed a spreadsheet model for performing the UCT calculation. The input assumptions and results for each program analysis are included in Appendix D – 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 potential studies, research on programs at other utilities, and standards set by ENERGY STAR, 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

Table 3-1 shows the estimated annual costs to implement the 2017 Plan programs (for 12 months of implementation). Costs are presented in five categories which are described in detail following the table.

Table 3-1

Program	Admin	Third Party	Rebates	Promotion	M&V	Total
Commercial Comp.	$ 436,318	$ 2,884,139	$ 5,436,507	$ 234,235	$ 194,377	$ 9,185,576
Residential Comp.	$ 289,527	$ 2,278,106	$ 3,124,071	$ 160,989	$ 76,795	$ 5,929,488
Residential Lighting	$ 177,451	$ 621,754	$ 2,727,376	$ 101,197	$ 30,000	$ 3,657,779
PNM Home Works	$ 25,761	$ 221,286	$ 285,000	$ 13,239	$ 7,500	$ 552,786
New Home Construction	$ 29,901	$ 201,931	$ 369,000	$ 15,367	$ -	$ 616,198
Energy Smart (MFA)	$ 10,482	$ 17,814	$ 178,143	$ 5,387	$ 3,750	$ 215,576
Easy Savings Kit	$ 18,426	$ 163,417	$ 186,000	$ 21,560	$ 7,500	$ 396,902
Power Saver	$ 233,036	$ 2,715,695	$ 1,822,242	$ 119,764	$ 12,500	$ 4,903,237
Peak Saver	$ 91,949	$ 1,070,471	$ 720,000	$ 47,255	$ 12,500	$ 1,942,175
Market Transformation	$ 30,350	$ 417,402	$ -	$ 165,598	$ -	$ 613,350
TOTALS	**$ 1,343,201**	**$ 10,592,014**	**$ 14,848,339**	**$ 884,590**	**$ 344,922**	**$ 28,013,066**

THIRD PARTY IMPLEMENTATION

PNM administers all programs; however, PNM has engaged third-party contractors with proven expertise to implement most of the programs. PNM has chosen to use third-parties to implement programs because of the many advantages that this approach provides. These advantages and considerations include:

- *The ability to use a request-for-proposal (RFP) process which solicits responses from potential contractors and allows PNM to evaluate the best approach and most qualified proposal.*
- *Proven expertise and experience in delivering similar programs by the selected contractor reduces the risk associated with implementing a new program and achieving targeted participation.*
- *Companies that specialize in specific program delivery can start a new program quickly after PNM receives PRC approval.*
- *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 3-2 lists each program and the party responsible for implementation.

Table 3-2

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	EnerNOC	X			X
Market Transformation	PNM	X	X	X	X

PROMOTION

Most third-party contractors are responsible for marketing the programs they administer; therefore, their promotional costs are included in third-party expenses. In addition to some promotion of individual programs by third-party implementers, PNM will have responsibility for planning and executing customer outreach strategy and activities for the Residential Comprehensive program as a whole. PNM manages all marketing activity for the Refrigerator Recycling component and assists ICF and CLEAResult in the development of marketing materials and campaigns for the Home Energy Checkup and Residential Cooling components, respectively. PNM also works in conjunction with each third-party contractor to market its respective program and includes information about some of these programs in its own marketing materials and customer outreach channels where appropriate. These marketing channels include direct mail, outreach events (including events specifically for low-income customers), bill inserts, call center staff, the PNM website, outdoor advertising, and television and radio spots. Effective promotion and marketing of each program is critical to success; therefore, PNM continuously monitors the promotional plans for each program for possible modifications. For example, marketing of the Refrigerator Recycling was originally done by the third-party contractor but PNM determined it could be better accomplished in-house. Similar decisions could be made for other programs in future to ensure effective promotion.

Two new initiatives are also proposed that will help build success and cost-effectiveness across the efficiency portfolio. These initiatives include establishing a trade ally network to support the businesses that deliver PNM's efficiency programs and launching a customer analytics initiative to capture and gain insight from customer-level information.

TRADE ALLY NETWORK

In 2016, PNM efficiency programs are expected to have over 500 businesses actively participating as trade allies delivering program services and incentives to customers (please see Appendix C for a list of current trade ally businesses). In creating a consolidated trade ally network across all of its EE programs, PNM will directly support the many businesses that drive energy efficiency implementation in its service area. In addition to what is currently being provided by its third party

program implementation contractors, the umbrella trade ally network will offer recognition, rewards, technical and sales training, information resources and incentives. Other utilities have shown that such efforts have resulted in increased trade ally engagement with programs and greater success with customers.

CUSTOMER ANALYTICS

The customer analytics initiative is an effort intended to improve the effectiveness of PNM's energy efficiency programs, and help PNM stay on track to meet its EUEA 2020 compliance goal, by using better knowledge of customers to achieve cost-effective outreach and messaging. The process will integrate databases already in use at PNM with publicly available data to produce insights and communication strategies that help the EE programs target and recruit more participants, achieve greater engagement and savings per participant, and lead to higher customer satisfaction. The outcome will be the ability to create products and messages that are more relevant, concrete and actionable. Existing data will be compiled from several areas of the business, 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. New data will be added over time, including customer segmentation categories and equipment profiles. Initially, PNM will purchase publicly available data, and over time will supplement it and/or improve its quality with data gathered directly from customers through online or onsite energy assessments, or surveys. Customer analytics will directly impact marketing for efficiency programs, supporting marketing plans, campaigns, strategies and tactics. As insights are collected over time, PNM will develop multi-channel communications to maximize individual relevance for customers which ultimately will lead to more participation from those customers who are the most interested in specific programs.

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 are often higher than they are for less efficient options. Customer Incentives or rebates are designed to help overcome this barrier. Rebates provided in the 2017 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 in 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, 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. 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 2017 Plan costs.

MEASUREMENT AND VERIFICATION

The budget for independent M&V of the programs is estimated to be less than 2% of the total program budget. Costs for M&V are based on the current contract approved by the NMPRC with ADM Associates Inc. (ADM) to conduct analysis of programs for calendar year 2016 and on actual costs for M&V in previous years.

4 2017 PROGRAM PLAN SUMMARY

4.1 SUMMARY TABLES

This section presents the key performance measures and assumptions for each program in the 2017 Plan. The information is presented in a series of tables. Table 4-1 shows the customer participation and unit targets forecasted for the programs.

Table 4-1

Program	Unit Type	2017
Comm. Comp. - Retrofit/NC	Participant	340
Comm. Comp. - QuickSaver	Participant	350
Comm. Comp - Build. Tune Up	Participant	100
Comm. Comp - Midstream	Unit	600
Comm. Comp - Multifamily	Participant	13
Res. Comp. - Refrigerator Recycling	Unit	8,000
Res. Comp. - Energy Checkup	Participant	1,575
Res. Comp. - Low Income Checkup	Participant	1,250
Res. Comp. - Cooling	Unit	4,794
Residential Lighting	Bulb	850,000
PNM Home Works	Participant	9,500
New Home Construction	Participant	700
Energy Smart (MFA)	Unit	2,605
Easy Savings Kit	Participant	6,200
Power Saver	Participant	39,000
Peak Saver	Participant	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	76,227	11.67	$8,010
Comm. Comp. - QuickSaver	12.0	27,904	2.418	$4,789
Comm. Comp - Bldg Tune-Up	7.0	32,990	0.957	$1,656
Comm. Comp - Build. Tune Up	15.0	1,146	0.134	$480
Comm. Comp - Multifamily	10.0	169,076	24.40	$29,490
Res. Comp. - Refrigerator Recycling	5.0	685	0.167	$50
Res. Comp. - Energy Checkup	15.0	635	0.129	$144
Res. Comp. - Low Income Checkup	16.0	1,585	0.148	$621
Res. Comp. - Cooling	15.0	728	0.735	$338
Residential Lighting	14.0	19	0.002	$3
PNM Home Works	11.0	177	0.004	$30
New Home Construction	17.0	1,028	0.301	$527
Energy Smart (MFA)	17.0	115	0.015	$68
Easy Savings Kit	16.0	185	0.013	$30

Table 4-3 provides the projected annual energy savings, annual demand savings and lifetime energy savings for each program. The annual savings values reflect annualized savings for all customers that begin participating in PNM's EE programs in a calendar year. For example, if a customer begins participating in an EE program in December 2017, a full year's worth of savings from that participation is attributed to 2017 for purposes of calculating 2017 savings and the UCT. However, the customer's participation will not have a full year's impact on PNM's system load until 2018.

Table 4-3

Program	Annual kWh Savings	Lifetime kWh Savings	kW Savings
Commercial Comprehensive	41,868,084	457,671,190	5,306
Residential Comprehensive	11,950,203	126,428,533	5,250
Residential Lighting	16,189,592	226,654,283	1,865
PNM Home Works	1,677,040	18,447,443	34
New Home Construction	719,280	12,227,760	211
Energy Smart (MFA)	300,551	5,118,743	40
Easy Savings Kit	1,148,984	18,383,744	80
Power Saver	600,000	600,000	48,000
Peak Saver	900,000	900,000	18,000
Market Transformation			
TOTAL	**75,353,733**	**866,431,696**	**78,785**

Table 4-4 shows the net present value (NPV) of program costs for the first 12 months of implementation, the NPV of program benefits and the ratio of benefits to costs which is the UCT for each program. Additional detail on the UCT calculations for each program is provided in Appendix D.

Table 4-4

Program	NPV Costs	NPV Benefits	UCT
Commercial Comprehensive	$ 8,491,796	$16,579,003	1.95
Residential Comprehensive	$ 5,481,638	$ 8,671,959	1.58
Residential Lighting	$ 3,381,509	$ 7,976,545	2.36
PNM Home Works	$ 511,034	$ 550,030	1.08
New Home Construction	$ 569,657	$ 601,355	1.06
Energy Smart (MFA)	$ 199,294	$ 224,586	1.13
Easy Savings Kit	$ 366,924	$ 693,108	1.89
Power Saver	$ 4,532,900	$ 5,528,370	1.22
Peak Saver	$ 1,795,484	$ 2,089,035	1.16
Market Transformation	$ 567,024	$ -	n/a
TOTAL	**$25,897,260**	**$42,913,990**	**1.66**

4.2 NON-ENERGY BENEFITS

4.2.1 ECONOMIC BENEFITS

The PNM Energy Efficiency Program has a positive economic impact on our state through the creation of new jobs. There is a correlation between the level of incentives provided to customers and the number of retrofit and new construction projects performed by contractors and other trade allies to help our residential and commercial customers become more energy efficient. As determined by the independent M&V evaluation of the programs, most projects would not have been completed without the program incentives. More specifically, in the case of energy efficiency spending, these programs provide services, purchase materials, and induce investment, which have a direct impact on the economy. 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. The incentive levels in the 2017 Plan are designed to cover between 25% and 50% of the incremental cost of performing the 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 approach to estimating the increased investment caused by the rebate payments could 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 $14,000,000 this would result in about $28,000,000 in investment in energy efficiency improvements that would otherwise not have been made.

The number of new jobs created by the existing PNM Energy Efficiency Program and those projected for the new program are 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 it is likely that many additional jobs are being supported in the contractor community to install the measures associated with the commercial program.

Table 4-5

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

4.2.2 EMISSIONS REDUCTIONS

The energy savings attributed to the proposed 2017 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 46,900 metric tons per year and the water reduction is estimated at about 24,600,000 gallons per year, assuming the 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 Energy Efficiency Programs. Beginning with the first billing cycle of January 2016, the program cost element of the Rider was set at 3.000 percent of bills and the profit incentive element was set at 0.195 percent, as shown in Advice Notice No. 515[6]. PNM filed a reconciliation of 2015 program costs concurrently with the 2017 Plan on April 15, 2016. The reconciliation filing includes proposed adjustments to the Rider to account for over collection of program costs and profit incentive costs in 2015. PNM estimates the Rider element for recovery of the 2017 Plan program costs will be 3.0 percent of bills which is the same as the current program cost element, not including reconciliation or profit incentive elements.

4.4 MEASUREMENT AND VERIFICATION (M&V)

The Act requires that M&V be performed by an independent program evaluator. The Rule specifies that the NMPRC will approve the selection of the independent evaluator. The independent evaluator prepares a report that includes documentation of the total portfolio and individual program-level expenditures, measured and verified savings, and cost-effectiveness of all utility programs, including 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, are operating properly within reasonable quality standards and are expected to generate the predicted savings.

[6] Advice Notice No. 515, effective December 30, 2015.

In addition to the objectives listed above, some of the broader expectations of the M&V evaluator include: to implement a rigorous and transparent M&V process for all energy-efficiency and load management programs in New Mexico; to develop an M&V framework that clarifies the responsibilities of the Commission, the evaluator and the utilities and development of guidance for the implementation of consistent impact evaluations; to assess program metrics; to report the results of the evaluations; to inform future program design and budget allocation decisions; and to provide technical support to the NMPRC, as may be requested.

On November 8, 2012, the NMPRC approved ADM Associates, Inc. as the statewide independent evaluator for calendar years 2013 through 2015.[7] On December 9, 2015, NMPRC Staff presented to the Commission a recommendation to extend the ADM contract through 2016 and to initiate an RFP process in 2016 to select an M&V evaluator for future years.[8] There were no objections to the recommendation. PNM will work closely with the independent evaluator approved by the NMPRC for evaluation of the 2017 Plan programs.

4.5 REPORTING

PNM will make annual filings, currently scheduled for March 1, each year that will cover program evaluation 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.

5 PROGRAM DESCRIPTIONS

Continuing and proposed new programs 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. 14-00310-UT

COMMERCIAL COMPREHENSIVE

[7] Minutes of NMPRC Open Meeting, November 8, 2012.

[8] Minutes of NMPRC Open Meeting, December 9, 2015

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[9] web site to search for new energy efficient 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 is comprised of 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.[10]

RETROFIT REBATES

The Retrofit Rebate component 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; or 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.[11]

NEW CONSTRUCTION

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

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

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

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 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.

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 utility 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.

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[12]; deeper market penetration of certain energy efficient products is possible if this approach is used. Without midstream incentives, distributors tend to stock basic (cheaper) equipment. 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

[12] 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

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. In 2015, the program launched with incentives for HVAC equipment and vending machine controls. In 2016 the program is adding new technologies, and additional items will be considered for 2017 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 will 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 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. 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.[13]

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 is increasing the limit to 200 kW to reach 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

[13] http://pnmmultifamily.com/

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 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 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 in underserved areas and to businesses with high energy use intensity.

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. 14-00310-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 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[14].

HOME ENERGY CHECKUP

Home Energy Checkup, now 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 home assessor 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 home assessor installs applicable energy efficiency measures, which are now 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 and CFLs, smart power strips, a programmable thermostat 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. Rebates are also provided for the purchase of ENERGY STAR appliances, 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 is the third-party implementation contractor. ICF's duties include recruitment and training of contractors, home assessors and retailers (trade allies), rebate fulfillment, marketing and advertising, data tracking and 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

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*

[14] https://www.pnm.com/rebates

- *Air Purifier*
- *Insulation rebates*
- *Dishwasher*
- *Air conditioning tune-up*
- *Advanced evaporative cooling*
- *HVAC Early Replacement*
- *HVAC Replacement with CEE Tier I unit*
- *HVAC Replacement with CEE Tier 2 (SEER 15+ unit)*
- *HVAC Replacement with CEE Tier 3 (SEER 17+ unit)*
- *Window AC Unit*

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

RESIDENTIAL COOLING

The Residential Cooling 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 (currently SEER 15+)*
- *Refrigerated A/Cs listed as CEE tier 3 (currently SEER 17+)*
- *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.[15]

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

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

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, but no limit for business customers, provided they meet all program requirements.

RESIDENTIAL LIGHTING

The Residential Lighting program provides incentives to PNM customers to replace incandescent light bulbs with LED and CFL 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 http://www.pnm.com/cfl. The list of participating retailers is also shown in Appendix C. The primary focus of the 2017 Plan program will be the promotion of LEDs; however, there will continue to be a market for CFLs in certain situations. LEDs are expected to be about 80% of the program in 2017. CFLs and LEDs use 75% less electricity than traditional incandescent bulbs. CFLs also last up to 10 times longer and an LED can last up to 20 times longer than a traditional incandescent. A CFL or 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 tremendous change over the last few years and change is expected to continue as LEDs become more affordable and new halogen incandescent bulbs gain 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 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 and CFL 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[16] EC-halogen bulbs are the fastest growing lighting technology. However, an EC-halogen equivalent to a 100W incandescent uses 73W, while an equivalent LED or CFL uses only 23W. Consequently, there are still significant energy savings to be achieved by using and promoting LEDs and CFLs. Although overall savings from LED and CFL 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 850,000 LED and CFL bulbs in 2017. LEDs are expected to be about 80% of total sales. 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.

[16] National Electrical Manufacturers Association, December 2015, http://www.nema.org/news/Pages/Another-Strong-Quarter-for-LED-A-Line-Lamp-Shipments.aspx

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 2017 Plan program will have two components: a presentation and kit designed for participating 5th grade students; and a presentation and kit for 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, 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 2017 Plan in general. Therefore, PNM is proposing to fund 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 2017 Plan below.

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.

5.2.2 NEW RESIDENTIAL PROGRAM

NEW HOME CONSTRUCTION

OVERVIEW

The ENERGY STAR® New Homes program PNM offered for several years was no longer cost effective because of significant building code changes and was therefore concluded. However, in response to on-going requests from stakeholders and in an effort to restart an efficiency 'call to action' to the homebuilder community, PNM is proposing a hybrid version of the ENERGY STAR New Homes program that has proven successful in similar utility programs. The target audience consists of custom, semi-custom, and production home builders and could also include 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.

IMPLEMENTATION

PNM has contracted with ICF International to manage all components of this turnkey program which includes marketing and outreach, builder and HERS rater outreach and training, quality assurance, data tracking and reporting, and rebate processing. We will also continue ongoing discussions concerning collaboration with the New Mexico Gas Company on this program for an even more robust program offering to home builders.

CONDITIONS

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.

TARGET MARKET

There were 1,576 new home permits in the Albuquerque area in 2014 and 1,645 permits in 2015. Builders expect growth to exceed the level in 2015 in both 2016 and 2017 by approximately 5 to 10%. ICF anticipates a range between 600-900 new homes to qualify annually with more than half choosing the performance incentive path. The proposed 2017 participation goal is 700 homes, which assumes 70% of builders will choose the performance path and 30% will choose prescriptive.

RELATION TO EXISTING PROGRAMS

The New Home Construction program will serve a segment that is not directly targeted by other PNM programs and will motivate homebuilders to build efficiently through prescriptive and performance incentive paths. Performance builders will be able to advertise and sell their homes as PNM high performance homes. This program provides new home buyers with higher quality homes, increased comfort and improved indoor air quality, lower utility bills and maintenance costs, and verifiable documentation of analysis and testing. Home builders who choose the prescriptive path are not required to use a HERS rater, however, program staff will perform random installation verification for quality assurance purposes.

MARKETING AND OUTREACH

PNM marketing strategies include, but are not limited to, direct mail, association meetings and events, trade publications, website, email, one-on-one collateral materials, and word of mouth through realtors, developers, and architectural firms.

ENERGY SAVINGS

PNM estimates the average savings per newly constructed home is approximately 1,284 kWh. Energy savings will be achieved through the prescriptive or performance incentive paths. PNM will continuously monitor participation and make modifications to measures and incentive levels as market conditions dictate in order to achieve participation and budget goals while also maintaining cost effectiveness. One example of this might include adding a 40% performance bonus tier and comparative incentive to encourage even deeper energy savings by builders.

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

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.

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

SIMILAR PROGRAMS AT OTHER UTILITIES

Other utilities offering similar programs include: El Paso Electric, AEP Ohio, National Grid (MA), and Public Service Company of Oklahoma.

5.3 LOW INCOME PROGRAMS

5.3.1 CONTINUING PROGRAMS – APPROVED IN CASE NO. 14-00310-UT

EASY SAVINGS KIT

The Easy Savings Kit program provides free LEDs and CFLs, 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 (FORMERLY REFRIGERATOR AND CFL REPLACEMENT)

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. PNM is proposing in the 2017 Plan to expand the efficiency options to include a number of additional items for PNM customers that have electric space heating, electric water heating or refrigerated air-conditioning. The new options will include: weatherization, attic insulation, duct sealing, pipe and tank insulation, low-flow showerheads and aerators and a programmable thermostat. 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 about 25% of the projects in the Multifamily program will be for low-income qualified properties.

5.4 LOAD MANAGEMENT PROGRAMS

5.4.1 CONTINUING PROGRAMS – APPROVED IN CASE NO. 14-00310-UT

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 150 kW or greater. Participating customers receive an incentive based on their level of load reduction at the end of each control season. PNM has hired a third-party contractor, EnerNOC, Inc., to manage and market this program. EnerNOC 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. EnerNOC's responsibilities include marketing, installing load control equipment, data collection and analyses required for validating the contract capacity.

POWER SAVER

The PNM Power Saver program is the load management program for residential customers and 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 has hired a 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.

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 2015, including on PNM's 2015 system peak day, which occurred at 4:00 PM MDT on June 22, 2015.

Table 5-2

Date	Start Time	End Time	Duration (Hr)
6/17/2015	2:00 PM	6:00 PM	4.0
6/18/2015	2:00 PM	6:00 PM	4.0
6/19/2015	2:00 PM	6:00 PM	4.0
6/22/2015	2:00 PM	6:00 PM	4.0
6/23/2015	2:00 PM	6:00 PM	4.0
6/29/2015	3:30 PM	6:30 PM	3.0
6/30/2015	2:00 PM	6:00 PM	4.0
7/1/2015	2:00 PM	6:00 PM	4.0
7/28/2015	2:00 PM	6:00 PM	4.0
7/31/2015	2:00 PM	6:00 PM	4.0
8/6/2015	2:00 PM	6:00 PM	4.0
8/13/2015	2:00 PM	6:00 PM	4.0
8/14/2015	2:00 PM	6:00 PM	4.0
8/18/2015	2:00 PM	6:00 PM	4.0
8/21/2015	2:00 PM	6:00 PM	4.0
15 Events in 2015			**59.0**

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,

2017 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 is proposing that the MT program continue 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 proposes that MT continue to fund the general energy efficiency educational activity that is currently part of the PNM Home Works program. While PNM has received very positive feedback from teachers and students on the education

component of the program,[17] 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 2017 Plan.

The State of New Mexico sponsored a state-wide energy efficiency potential study in 2011.[18] 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 conditioning and highly efficient lighting.

The Home Energy Advisor 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. However, not all potential participants have easy access to the on-line program, especially low income customers. Therefore, PNM is proposing to add 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.

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

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

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 8.17%. 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 in April 2016 and are shown in Table 6-1 below.

Table 6-1

	Energy ($/kWh)	Capacity ($/kW-yr)	CO_2 ($/Tonne)	CO_2 ($/kWh)
2017	$ 0.0238	$80	$0.00	$ -
2018	$ 0.0271	$80	$0.00	$ -
2019	$ 0.0289	$80	$0.00	$ -
2020	$ 0.0299	$80	$0.00	$ -
2021	$ 0.0311	$80	$0.00	$ -
2022	$ 0.0327	$80	$17.92	$ 0.0111
2023	$ 0.0342	$80	$19.68	$ 0.0122
2024	$ 0.0356	$80	$21.52	$ 0.0134
2025	$ 0.0371	$80	$23.43	$ 0.0146
2026	$ 0.0387	$80	$26.85	$ 0.0167
2027	$ 0.0403	$80	$30.41	$ 0.0189
2028	$ 0.0420	$80	$34.14	$ 0.0212
2029	$ 0.0438	$80	$38.04	$ 0.0237
2030	$ 0.0457	$80	$42.11	$ 0.0262
2031	$ 0.0476	$80	$46.36	$ 0.0288
2032	$ 0.0496	$80	$50.80	$ 0.0316
2033	$ 0.0517	$80	$55.43	$ 0.0345
2034	$ 0.0539	$80	$55.43	$ 0.0345
2035	$ 0.0561	$80	$55.43	$ 0.0345

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

6.3 APPENDIX C – TRADE ALLY BUSINESS LIST

PNM Residential and Commercial Programs Trade Ally Businesses

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

PNM Commercial Programs Trade Ally Businesses

Name	Area Served			
	Central	Northern	South Central	Southwest
2M Builders LLC		X		
3B Builders Inc	X			
A+ Electric LLC	X	X		
A-1 Electric Inc	X	X		
A-1 Inspectors Services LLC	X		X	X
Abraxas Electric LLC	X	X	X	X
Active Electric Inc	X			
Advantage Energy Solutions LLC	X			
Aim Electric Inc		X		
Air Management Services	X	X	X	X
Alba Electric				X
Allied Electric Inc		X		
Amazing Light Building & Electrical LLC	X	X		
APIC Solutions Inc	X	X		
Arcs N Sparks Electric Inc	X	X	X	X
Aspen Electric / AE Electric			X	
Atoparok Electrical Services			X	
B&D Industries Inc	X	X	X	X

Basic IDIQ Inc	X	X	X	X
Beaudin Ganze Consulting Engineers	X			
Becco Inc			X	
Beyond Electric	X			
Bixby Electric Inc	X	X		
Border States Electric (BSE)	X			
Bridgers & Paxton Consulting Engineers	X			
Broken Arrow Electric Co Inc	X	X	X	X
Bulldog Energy Solutions Inc	X	X	X	X
Burgos Group dba Northridge Electric	X			
Burque Electric Co	X			
Cates Electric Inc	X			
CED	X		X	
Centauri Sales	X			
Chili Electric	X			
Colt Electric Inc	X	X		
Comfort Systems USA SW	X			
Comverge	X	X	X	X
Conway Electric	X	X		
Corbins Electric	X	X	X	X
Corrales Electric Inc	X	X		
Current-C Energy Systems Inc	X	X	X	X
D & H Pump Service Inc	X	X	X	X
D Electric Inc	X			
DAC Electric	X	X		
Dahl Lighting Showroom	X	X		
Demand Drop	X	X	X	X
Desert Shade Tint & Shades LLC	X	X	X	X
Desert Shade Window Tinting	X	X	X	X
DKD Electric	X	X	X	X
DRB Electric Inc	X	X	X	X
E-Con Inc	X	X	X	X
ECOterra Energy Consulting	X			
Electrical West	X			
Electro Data LLC	X	X	X	X
Elite Electric	X			
Energized Electric LLC	X	X		
Energy Concepts Corp	X	X		
Energy Control Inc	X		X	
EnerNOC Inc	X			
Engineering Economics	X	X	X	X
Enterprise Builders Corp	X	X	X	X
Facility Solutions Group	X	X	X	X

GE Lighting	X			
GEW Mechanical	X	X		
Glass-Rite	X	X		
Gorman Distributing Co Inc	X	X		
Graybar	X			
H & H Industries Inc	X	X	X	X
Halcom Consulting	X			
HEI Inc	X			
Hoffman's Electric Inc	X	X	X	X
Holophane Lighting	X			
I W Inc	X	X	X	X
iCAST	X	X	X	X
Infineo Technologies LLC	X			
J & C Ortiz Electric LLC	X	X		
J M Evans Construction Inc		X		
Johnson Controls	X			
K Star Electric	X			
Keres Consulting Inc	X	X	X	X
Kershaw Electric	X			
Kimbrough Electric	X	X	X	X
LE Electric Inc			X	X
LeDoux's	X	X		
Lightspeed LLC	X	X		
LTBL Electric LLC	X			
Martha's Electric		X		
McDade-Woodcock Inc	X			
McNiel Electric Co Inc	X	X		
MCO Electric Inc	X			
Mechanical Systems Inc	X	X	X	X
Miller Bonded Inc	X			
Mosher Enterprises Inc	X	X		
Mountain Vector Energy	X	X	X	X
Mr Electric of Albuquerque	X			
National Electric	X	X		
National Electrical Contractors	X			
National Energy & Conservation Inc	X	X	X	X
Nergy Master LLC	X	X	X	X
New Line Technology Inc	X	X		
Noresco LLC	X	X	X	X
Northridge Electric	X	X	X	X
Number 1 Plumbing	X			
Omega Contractors	X	X	X	X
Orion Energy Systems Inc	X	X	X	X

Osceola Energy	X	X	X	X
Pearl Mechanical LLC	X	X	X	X
Phaze One Electric	X	X		
Philips Lighting	X	X	X	X
Positive Electric	X			
Prime Electric Inc	X			
Pumps & Service	X			
R & B Commercial Service	X			
Randy's Electric Co Inc	X	X		
Red Mountain Lighting Inc	X			
Rentschler Electric			X	
Resource Lighting	X		X	X
RKL Sales Corporation	X		X	
Rodeo Electrical Services		X		
Schroeder Sales Inc	X			
Service Electric Co Inc	X			
Siemens Inc	X			
Silverado Enterprises Inc	X	X		
Southwest Green Building Center	X			
Sparky's Electric LLC	X	X		
Specialty Electric Inc	X			
SRS Electric LLC	X	X		
S-Squire Inc	X	X	X	X
Strategic Lighting	X	X		
Summit Electric Supply	X	X	X	X
Supermarket Energy Technologies	X	X	X	X
Sylvania Lighting Services	X			
Synergy Electric Integration Inc	X			
Three Strand Electric	X			
Trane SW	X	X	X	X
Travers Mechanical	X			
Tru Energy Solutions LLC	X	X	X	X
True Light Electric Inc	X	X		
Turquoise Trail Electric & Plumbing LLC	X	X		
US Electrical Corp	X			
US Energy Recovery	X	X	X	X
VA Electric Inc	X	X		
Varitec Solutions	X	X	X	X
Verde Lights Inc	X			
Vibrantcy Inc	X			
Voss Lighting	X			
Walker A/C & Refrigeration			X	X
Wentz Electric Co LLC				X

Westek Contracting LLC	X	X		
WH Pacific	X			
Wisco Supply Inc	X		X	
Yearout Service LLC	X			
Yucca Electric LLC	X	X		

PNM Residential Programs Trade Ally Businesses

Name	Area Served			
	Central	Northern	South Central	Southwest
#1 Plumbing And Air	X			
1-Call Mechanical, LLC	X			
A & G Heating and Air Conditioning, Inc.	X			
A & G Mechanical, Inc	X			
A And G Heating And Air Conditioning, Inc.	X			
A B Honest 1 Plumbing, Heating & Cooling, LLC	X			
A.I.O. Trades	X			
A1 Pool Supply	X			
Aaa Master Services	X			
Abel Plumbing & Heating	X			
Able Servicepros LLC	X			
Abq Temperature Management LLC	X			
Academy	X			
Affordable Service, Inc.	X			
Air Comforting Experts, LLC		X		
Air Conditioning & Heating Service Co.		X		
Air Conditioning Systems, Inc.	X			
Air One Cooling And Heating, LLC	X			
Air Pro, Inc.	X			
Albuquerque Plumbing Heating And Cooling	X			
Albuquerque Winair	X			
Amazon.Com	X	X	X	X
Ancae Heating, Air Conditioning & Plumbing	X			
Anderson Air Corps	X			
Anderson Refrigeration Inc.				X
Aranda'S Plumbing, Heating And Supply, Inc.		X		
Arch Design	X			
Atar, Inc.	X			
Axiom Home Services	X			
Aztec Mechanical, Inc.	X			
B Carlson	X	X		
Backyardpoolsuperstore.Com				
Baker Distributing	X			
Bentley Plumbing And Heating			X	

Black Bear Mechanical, LLC	X			
Blue Water Pools Inc.	X			
Brents Hvac And Plumbing	X			
Brothers Electro Mechanical, Inc.	X			
Bryan Andrade	X			
Budget Climate Control	X			
Budget Climate Control	X			
Builders Mechanical, Inc.	X			
Cait Co. Drainworks		X		
Cartwright'S Plumbing & Roto Rooter		X		
Central NM Housing Corporation	X			
Clean Air Mechanical Inc.	X			
Comfort Doctor Heating & Cooling		X		
Courtesy Plumbing Heating & Air Conditioning Inc	X			
Cross Unlimited, LLC				X
Cunningham Distributing, Inc.	X			
Dahl Of Santa Fe		X		
Davis the Plumber	X			
Day & Night Plumbing Heating & Cooling Inc.	X			
Delta Mechanical	X			
Desert Mountain Plumbing And Heating Inc.		X		
Desert Pools And Spas	X			
DJ'S Plumbing & Mechanical, LLC	X			
Doc Savage Supply	X			
Donner Plumbing & Heating Inc.	X			
Dub-L-Ee LLC	X			
Duke City Heating And Cooling, LLC	X			
Durano Construction	X			
Ebay.Com	X	X	X	X
Em Plumbing Heating Mechanical	X			
Ferguson	X			
Fm Mechanical	X			
Four Star Mechanical Services Inc.	x	x		
G C Services, Inc.	X			
Gardner Plumbing	X			
Golden Sun Solar		X		
Goodman	X			
Gorman Industries	X			
Gustave Larson	X			
H.E.L.P., Inc.	X			
Harper Heating And Air Conditioning	X			
Hercules Industries	X			
High Desert Air Conditioning And Heating		X		

Home Service Contractors, Inc.				X
Hubbell Electro-Mechanical		X		
Inyopools.Com	X	X	X	X
Johnstone Supply Co	X			
Johnstone Supply Co		X		
Just Sprinklers	X			
Kokopelli Pool & Spa LLC		X		
Ksm	X			
Lane Plumbing Company, Inc.				X
Lee-Sure Pools, Inc	X			
Lennox Parts Plus	X			
Leonards Plumbing And Heating			X	
Leslie'S Pool Supplies	X			
Leslie'S Pool Supplies #036	X			
Leslie'S Pool Supplies #764	X			
Leslie'S Pool Supplies #868				
Limitless Pool And Spa	X			
Magic Mobile Homes, Inc.	X			
Magnoliapools.Com	X	X	X	X
Mechanical Concepts Ltd Co	X			
Mel Muller Repari	X			
MGP Mechanical	X			
MGS Refrigeration, Heating, & Cooling				X
Mi Casa Heating LLC		X		
Miller's Insulation	X	X		
Morrison Supply Co				X
Morrison Supply Santa Fe		X		
N Demand Test & Balance LLC	X			
Natures Creations Inc		X		
New Mexico Pools & Spas	X			
Otero Plumbing & Heating, Inc.				X
Paul'S Plumbing & Heating, Inc.		X		
Pdr Of Northern New Mexico, Inc.		X		
Pearl Mechanical LLC	X			
Perfection Pools & Plumbing	X			
Perkins Mechanical, LLP		X		
Perry Supply Co	X	X		
Phc Systems			X	
Pinos Altos Plumbing Corp				X
Pool And Spa Doctor Inc		X		
Pool Supply Unlimited	X			
Pool Works	X			
Poolcleaningparts.Com	X	X	X	X

Poolplaza.Com	X	X	X	X
Pools Plus	X			
Poolsupply4Less	X	X	X	X
Poolsupplyunlimited.Com	X	X	X	X
Poolsupplyworld.Com	X	X	X	X
Poper Construction LLC	X			
Preferred Plumbing, Heating, & Cooling, LLC	X			
Pro-Tech Air Conditioning & Heating		X		
R & R Heating & Air	X			
Ray Sego Insulation, Inc.	X	x		
Redline Mechanical	X			
Reliable Tech Heating, Cooling & Plumbing LLC.		X		
Rich Duran Plumbing & Heating Inc.		X		
Rio Grande Food Project	X			
Roadrunner Air Conditioning, Heating & Refrigeration		X		
Salazar Heating Cooling & Plumbing		X		
Salvation Army		X		
Salvation Army		X		
Santa Fe Winnelson		X		
Scp	X			
Simmons Plumbing Company	X			
Southwestern Regional Housing Comm. Devel. Corp				X
Sr Construction	X			
St. Francis Newman Center				X
Stm Air Conditioning And Heating		X		
Sun State Mechanical, Inc.	X			
Sunshine Plumbing & Heating, Inc.	X			
Territorial Plumbing, Heating and Electric LLC		X		X
The Storehouse	X			
Thompson Heating And Air Conditioning, Inc.	X			
TLC Plumbing And Utility		X		
Total Comfort Heating & Cooling, Inc.	X			
Town & Country Plumbing, Heating, Cooling, LLC	X			
Townsend Pool Specialists	X			
United Refrigeration	X			
Unlimited Plumbing, LLC	X			
Vica Heating & A/C	X			
Wagner Mechanical	X			
Watts Eastside Pools	X			
Williams Mechanical - Albuque	X			
Winnelson- Alamogordo				X
www.Webpoolsupply.Com	X	X	X	X

PNM Retail Rebate Programs Trade Ally Businesses

Name	Location
Ace Hardware	Rio Rancho
Ace Hardware	Ruidoso
Ace Hardware	Santa Fe
Ace Hardware	Silver City
Ace Hardware (NE)	Albuquerque
Ace Hardware (NW)	Albuquerque
Alpine Builders	Santa Fe
Apple Tree Home Improvement	Ruidoso
Batteries Plus Bulbs	Santa Fe
Batteries Plus Bulbs (NE)	Albuquerque
Costco (NE)	Albuquerque
Costco (NW)	Albuquerque
Costco (SE)	Albuquerque
Hacienda Home Center	Las Vegas
Home Depot	Rio Rancho
Home Depot	Los Lunas
Home Depot	Santa Fe
Home Depot	Alamogordo
Home Depot (NE)	Albuquerque
Home Depot (NW)	Albuquerque
Home Depot (NW)	Albuquerque
Home Depot (SE)	Albuquerque
Rak's Building Supply	Los Lunas
Rak's Building Supply (SW)	Albuquerque
Ranch Market	Clayton
Ray of Light	Santa Fe
Sam's Club	Santa Fe
Sam's Club (NE)	Albuquerque
Sam's Club (NE)	Albuquerque
Sam's Club (NW)	Albuquerque
Saucedo's	Lordsburg
Sun Valley True Value	Deming
Sun Valley True Value	Silver City
The Lamp Shop (NE)	Albuquerque
True Value	Clayton
True Value	Ruidoso
True Value	Santa Fe
True Value	Santa Fe
True Value	Tularosa
True Value	Alamogordo

True Value (NE)	Albuquerque
True Value (NE)	Albuquerque
True Value (Pat Romero's)	Las Vegas
Walmart	Rio Rancho
Walmart	Alamogordo
Walmart	Belen
Walmart	Bernalillo
Walmart	Deming
Walmart	Las Vegas
Walmart	Los Lunas
Walmart	Ruidoso Downs
Walmart	Santa Fe
Walmart	Santa Fe
Walmart	Silver City
Walmart	Rio Rancho
Walmart (NE)	Albuquerque
Walmart (NE)	Albuquerque
Walmart (NE)	Albuquerque
Walmart (NE)	Albuquerque
Walmart (NE)	Albuquerque
Walmart (NE)	Albuquerque
Walmart (NE)	Albuquerque
Walmart (NW)	Albuquerque
Walmart (NW)	Albuquerque
Walmart (NW)	Albuquerque
Walmart (SE)	Albuquerque
Walmart (SW)	Albuquerque
Walmart (SW)	Albuquerque
Dollar Tree	Alamogordo
Dollar Tree (NW)	Albuquerque
Dollar Tree (NE)	Albuquerque
Dollar Tree (NW)	Albuquerque
Dollar Tree (SE)	Albuquerque
Dollar Tree (SW)	Albuquerque
Dollar Tree (NE)	Albuquerque
Dollar Tree (NW)	Albuquerque
Dollar Tree (NW)	Albuquerque
Dollar Tree (NE)	Albuquerque
Dollar Tree (SE)	Albuquerque
Dollar Tree (NE)	Albuquerque
Dollar Tree (NW)	Albuquerque
Dollar Tree (NE)	Albuquerque
Dollar Tree (NW)	Albuquerque

Dollar Tree	Belen
Dollar Tree	Deming
Dollar Tree	Las Vegas
Dollar Tree	Los Lunas
Dollar Tree	Rio Rancho
Dollar Tree	Rio Rancho
Dollar Tree	Ruidoso
Dollar Tree	Santa Fe
Family Dollar	Alamogordo
Family Dollar	Alamogordo
Family Dollar (SW)	Albuquerque
Family Dollar (SE)	Albuquerque
Family Dollar (NW)	Albuquerque
Family Dollar (NW)	Albuquerque
Family Dollar (NE)	Albuquerque
Family Dollar (NE)	Albuquerque
Family Dollar (NE)	Albuquerque
Family Dollar (SW)	Albuquerque
Family Dollar (SW)	Albuquerque
Family Dollar (SW)	Albuquerque
Family Dollar (NW)	Albuquerque
Family Dollar (NE)	Albuquerque
Family Dollar (SE)	Albuquerque
Family Dollar (SW)	Albuquerque
Family Dollar (NW)	Albuquerque
Family Dollar (NW)	Albuquerque
Family Dollar (NW)	Albuquerque
Family Dollar (NW)	Albuquerque
Family Dollar (SE)	Albuquerque
Family Dollar (NE)	Albuquerque
Family Dollar (NW)	Albuquerque
Family Dollar (NE)	Albuquerque
Family Dollar (NW)	Albuquerque
Family Dollar (NW)	Albuquerque
Family Dollar (NE)	Albuquerque
Family Dollar (SW)	Albuquerque
Family Dollar	Bayard
Family Dollar	Belen
Family Dollar	Bernalillo
Family Dollar	Clayton
Family Dollar	Deming
Family Dollar	Las Vegas
Family Dollar	Lordsburg

Family Dollar	Los Lunas
Family Dollar	Los Lunas
Family Dollar	Los Lunas
Family Dollar	Peralta
Family Dollar	Pojoaque
Family Dollar	Rio Rancho
Family Dollar	Ruidoso
Family Dollar	Ruidoso
Family Dollar	Santa Fe
Family Dollar	Silver City
Family Dollar	Silver City
Family Dollar	Tularosa
Samon's	Alamogordo
Samon's (NW)	Albuquerque
Samon's (NE)	Albuquerque
Samon's (SW)	Albuquerque
Samon's (NE)	Albuquerque
Samon's (NE)	Albuquerque
Samon's	Bosque Farms
Samon's	Rio Rancho
Smith's (SE)	Albuquerque
Smith's (SE)	Albuquerque
Smith's (NE)	Albuquerque
Smith's (NE)	Albuquerque
Smith's (NE)	Albuquerque
Smith's (NW)	Albuquerque
Smith's (NE)	Albuquerque
Smith's (NE)	Albuquerque
Smith's (NW)	Albuquerque
Smith's (NE)	Albuquerque
Smith's (NE)	Albuquerque
Smith's (NW)	Albuquerque
Smith's	Los Lunas
Smith's	Rio Rancho
Smith's	Santa Fe
Smith's	Santa Fe
Smith's (NW)	Albuquerque

6.4 APPENDIX D – 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	10.93	See component program sheets for sources.
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 3,874.92	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	35,071	
Gross Annual kW Savings Per Unit	4.44	
Net-to-Gross	85.1%	
Free Ridership	14.9%	
Net Annual kWh Savings Per Unit	29,842	
Net Annual kW Savings Per Unit	3.78	
	:	
2017	1,403	
2018	1,404	
2019	1,404	
Total 3 Year Units / Participants	4,211	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 8,491,796	$ 8,760,913	$ 8,886,916	$ 26,139,624
NPV Benefits	$ 16,579,003	$ 17,745,893	$ 18,868,217	$ 53,193,113
UCT	**1.95**	**2.03**	**2.12**	**2.03**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	41,868,084	42,037,160	42,037,160	125,942,404
Cumulative kWh Savings	41,868,084	83,905,244	125,942,404	125,942,404
Lifetime kWh Savings	457,671,190	459,361,948	459,361,948	1,376,395,087
kW Savings	5,306	5,330	5,330	15,966.0
Cumulative kW Savings	5,306	10,636	15,966	15,966.0
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	-	-	-	$ -
3rd Party Administration	2,710,503	2,734,095	2,734,095	$ 8,178,694
Rebates	5,436,507	5,465,997	5,626,198	$ 16,528,702
Promotional Costs	10,000	10,000	10,000	$ 30,000
Subtotal	$ 8,157,010	$ 8,210,092	$ 8,370,294	$ 24,737,396
Taxes	173,636	175,381	175,381	
ALLOCATED COSTS				
Internal Admin	436,318	625,279	598,761	$ 1,660,358
Other	224,235	259,278	261,892	$ 745,405
M&V	194,377	206,649	206,649	$ 607,675
Subtotal	$ 1,028,566	$ 1,266,587	$ 1,242,683	$ 3,013,438
Total PNM Costs	**$ 9,185,576**	**$ 9,476,679**	**$ 9,612,977**	**$ 27,750,833**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 1,491,008	$ -	$ -	$ 1,491,008
2018	$ 1,639,990	$ 1,646,851	$ -	$ 3,286,841
2019	$ 1,719,335	$ 1,726,516	$ 1,726,516	$ 5,172,368
2020	$ 1,765,930	$ 1,773,299	$ 1,773,299	$ 5,312,529
2021	$ 1,819,205	$ 1,826,790	$ 1,826,790	$ 5,472,785
2022	$ 2,390,370	$ 2,400,261	$ 2,400,261	$ 7,190,892
2023	$ 2,506,776	$ 2,517,137	$ 2,517,137	$ 7,541,050
2024	$ 2,439,225	$ 2,630,688	$ 2,630,688	$ 7,700,602
2025	$ 2,550,464	$ 2,561,769	$ 2,751,929	$ 7,864,162
2026	$ 2,702,698	$ 2,714,671	$ 2,714,671	$ 8,132,039
2027	$ 2,696,960	$ 2,874,334	$ 2,874,334	$ 8,445,627
2028	$ 781,780	$ 2,853,461	$ 3,041,020	$ 6,676,261
2029	$ 56,062	$ 828,730	$ 3,016,811	$ 3,901,603
2030	$ 59,284	$ 59,284	$ 877,726	$ 996,294
2031	$ 62,646	$ 62,646	$ 62,646	$ 187,938
2032	$ -	$ 66,153	$ 66,153	$ 132,305
2033	$ -	$ -	$ 69,810	$ 69,810
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
Totals	**$24,681,733**	**$26,542,590**	**$28,349,790**	**$ 79,574,113**

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	2015 M&V
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 8,010.08	Rebate per unit = total rebate budget (below) / number of participants
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	94,236	2015 M&V
Gross Annual kW Savings Per Unit	14.42	2015 M&V
	:	
Net-to-Gross	81%	2015 M&V
Free Ridership	19%	
Net Annual kWh Savings Per Unit	76,226.98	
Net Annual kW Savings Per Unit	11.67	
	:	
2017	340	Forecast based on previous years' participaton and market potential
2018	340	
2019	340	
Total 3 Year Units / Participants	1,020	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 4,536,488	$ 4,636,000	$ 4,779,962	$ 13,952,450
NPV Benefits	$ 10,895,127	$ 11,579,413	$ 12,276,449	$ 34,750,989
UCT	**2.40**	**2.50**	**2.57**	**2.49**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	25,917,175	25,917,175	25,917,175	77,751,524
Cumulative kWh Savings	25,917,175	51,834,350	77,751,524	77,751,524
Lifetime kWh Savings	285,088,923	285,088,923	285,088,923	855,266,769
kW Savings	3,966.1	3,966.1	3,966.1	11,898.4
Cumulative kW Savings	3,966.1	7,932.3	11,898.4	11,898.4
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 1,602,015	$ 1,602,015	$ 1,602,015	$ 4,806,046
Rebates	$ 2,723,426	$ 2,723,426	$ 2,883,627	$ 8,330,479
Promotional Costs	$ 10,000	$ 10,000	$ 10,000	$ 30,000
Subtotal	$ 4,335,441	$ 4,335,441	$ 4,495,643	$ 13,166,525
Taxes	$ 100,595	$ 100,595	$ 100,595	$ 301,785
ALLOCATED COSTS				
Internal Admin	$ 231,902	$ 321,811	$ 313,586	$ 867,300
Other	$ 119,181	$ 136,915	$ 140,661	$ 396,756
M&V	$ 120,000	$ 120,000	$ 120,000	$ 360,000
Subtotal	$ 571,678	$ 679,321	$ 674,842	$ 1,925,841
Total PNM Costs	**$ 4,907,119**	**$ 5,014,762**	**$ 5,170,484**	**$ 15,092,365**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 977,508			$ 977,508
2018	$ 1,069,731	$ 1,069,731		$ 2,139,462
2019	$ 1,118,847	$ 1,118,847	$ 1,118,847	$ 3,356,541
2020	$ 1,147,690	$ 1,147,690	$ 1,147,690	$ 3,443,071
2021	$ 1,180,669	$ 1,180,669	$ 1,180,669	$ 3,542,006
2022	$ 1,534,231	$ 1,534,231	$ 1,534,231	$ 4,602,693
2023	$ 1,606,288	$ 1,606,288	$ 1,606,288	$ 4,818,865
2024	$ 1,676,296	$ 1,676,296	$ 1,676,296	$ 5,028,889
2025	$ 1,751,045	$ 1,751,045	$ 1,751,045	$ 5,253,135
2026	$ 1,853,342	$ 1,853,342	$ 1,853,342	$ 5,560,025
2027	$ 1,960,162	$ 1,960,162	$ 1,960,162	$ 5,880,486
2028	$ -	$ 2,071,681	$ 2,071,681	$ 4,143,362
2029	$ -	$ -	$ 2,188,080	$ 2,188,080
2030	$ -	$ -	$ -	$ -
2031	$ -	$ -	$ -	$ -
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
Totals	**$15,875,809**	**$16,969,982**	**$18,088,331**	**$ 50,934,121**

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	2015 M&V
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 4,789.02	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	31,927	2015 M&V
Gross Annual kW Savings Per Unit	2.77	2015 M&V
	:	
Net-to-Gross	87%	2015 M&V
Free Ridership	13%	
Net Annual kWh Savings Per Unit	27,904	
Net Annual kW Savings Per Unit	2.4	
	:	
2017	350	Forecast based on previous years' participaton and perceived market potential
2018	350	
2019	350	
Total 3 Year Units / Participants	1,050	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 2,288,932	$ 2,340,230	$ 2,330,381	$ 6,959,543
NPV Benefits	$ 3,860,393	$ 4,135,346	$ 4,415,848	$ 12,411,587
UCT	**1.69**	**1.77**	**1.89**	**1.78**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	9,766,403	9,766,403	9,766,403	29,299,208
Cumulative kWh Savings	9,766,403	19,532,805	29,299,208	29,299,208
Lifetime kWh Savings	117,196,831	117,196,831	117,196,831	351,590,494
kW Savings	846.2	846.2	846.2	2,538.6
Cumulative kW Savings	846.2	1,692.4	2,538.6	2,538.6
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 558,719	$ 558,719	$ 558,719	$ 1,676,156
Rebates	$ 1,676,156	$ 1,676,156	$ 1,676,156	$ 5,028,468
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 2,234,875	$ 2,234,875	$ 2,234,875	$ 6,704,624
Taxes	$ 35,083	$ 35,083	$ 35,083	$ 105,250
ALLOCATED COSTS				
Internal Admin	$ 119,543	$ 165,890	$ 155,890	$ 441,324
Other	$ 61,436	$ 70,578	$ 69,925	$ 201,940
M&V	$ 25,000	$ 25,000	$ 25,000	$ 75,000
Subtotal	$ 241,063	$ 296,552	$ 285,899	$ 823,514
Total PNM Costs	**$ 2,475,938**	**$ 2,531,427**	**$ 2,520,774**	**$ 7,528,138**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 316,487			$ 316,487
2018	$ 351,239	$ 351,239		$ 702,479
2019	$ 369,748	$ 369,748	$ 369,748	$ 1,109,244
2020	$ 380,617	$ 380,617	$ 380,617	$ 1,141,851
2021	$ 393,044	$ 393,044	$ 393,044	$ 1,179,133
2022	$ 526,278	$ 526,278	$ 526,278	$ 1,578,833
2023	$ 553,431	$ 553,431	$ 553,431	$ 1,660,293
2024	$ 579,812	$ 579,812	$ 579,812	$ 1,739,437
2025	$ 607,980	$ 607,980	$ 607,980	$ 1,823,940
2026	$ 646,528	$ 646,528	$ 646,528	$ 1,939,585
2027	$ 686,782	$ 686,782	$ 686,782	$ 2,060,345
2028	$ 728,806	$ 728,806	$ 728,806	$ 2,186,417
2029	$ -	$ 772,668	$ 772,668	$ 1,545,337
2030	$ -	$ -	$ 818,441	$ 818,441
2031	$ -	$ -	$ -	$ -
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
Totals	**$ 6,140,751**	**$ 6,596,933**	**$ 7,064,135**	**$ 19,801,820**

NOTES

Building Tune-Up Program

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

TECHNICAL ASSUMPTIONS		
Measure Type	Commercial	SOURCE:
Lifetime Years	7.00	2015 M&V adjusted for 2017 projected project participation
Incremental Cost Per Unit		
Rebate Cost Per Unit	$ 1,655.52	2015 M&V
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	37,920	2015 M&V
Gross Annual kW Savings Per Unit	1.10	2015 M&V adjusted for 2017 projected project participation
	:	
Net-to-Gross	87%	2015 M&V
Free Ridership	13%	
Net Annual kWh Savings Per Unit	32,990.30	
Net Annual kW Savings Per Unit	0.957	
	:	
2017	100	Combined AC tune-up and whole bldg target
2018	100	
2019	100	
Total 3 Year Units / Participants	300	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 585,664	$ 598,406	$ 595,960	$ 1,780,031
NPV Benefits	$ 636,563	$ 699,984	$ 762,339	$ 2,098,886
UCT	1.09	1.17	1.28	1.18

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	3,299,030	3,299,030	3,299,030	9,897,090
Cumulative kWh Savings	3,299,030	6,598,060	9,897,090	9,897,090
Lifetime kWh Savings	23,093,211	23,093,211	23,093,211	69,279,633
kW Savings	95.7	95.7	95.7	287.1
Cumulative kW Savings	95.7	191.4	287.1	287.1
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 189,599	$ 189,599	$ 189,599	$ 568,798
Rebates	$ 365,552	$ 365,552	$ 365,552	$ 1,096,655
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 555,151	$ 555,151	$ 555,151	$ 1,665,454
Taxes	$ 11,905	$ 11,905	$ 11,905	$ 35,716
ALLOCATED COSTS				
Internal Admin	$ 29,695	$ 41,208	$ 38,724	$ 109,626
Other	$ 15,261	$ 17,532	$ 17,370	$ 50,163
M&V	$ 21,500	$ 21,500	$ 21,500	$ 64,500
Subtotal	$ 78,362	$ 92,145	$ 89,499	$ 260,005
Total PNM Costs	$ 633,513	$ 647,296	$ 644,650	$ 1,925,459

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 91,696			$ 91,696
2018	$ 103,435	$ 103,435		$ 206,870
2019	$ 109,687	$ 109,687	$ 109,687	$ 329,061
2020	$ 113,358	$ 113,358	$ 113,358	$ 340,075
2021	$ 117,556	$ 117,556	$ 117,556	$ 352,669
2022	$ 162,562	$ 162,562	$ 162,562	$ 487,685
2023	$ 171,734	$ 171,734	$ 171,734	$ 515,202
2024	$ -	$ 180,645	$ 180,645	$ 361,291
2025	$ -	$ -	$ 190,160	$ 190,160
2026	$ -	$ -	$ -	$ -
2027	$ -	$ -	$ -	$ -
2028	$ -	$ -	$ -	$ -
2029	$ -	$ -	$ -	$ -
2030	$ -	$ -	$ -	$ -
2031	$ -	$ -	$ -	$ -
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
Totals	$ 870,028	$ 958,978	$ 1,045,703	$ 2,874,709

NOTES

$/kWh

Distributor (Midstream) Incentives

This is the midstream component of the Commercial Comprehensive Program

TECHNICAL ASSUMPTIONS		
Measure Type	Commercial	**SOURCE:**
Lifetime Years	15.00	2015 M&V
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 480.00	DNV-GL estimate
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	1,273	2015 M&V
Gross Annual kW Savings Per Unit	0.15	2015 M&V
	:	
Net-to-Gross	90%	2015 M&V adjusted for participation estimate
Free Ridership	10%	
Net Annual kWh Savings Per Unit	1,145.82	
Net Annual kW Savings Per Unit	0.13	
	:	
2017	600	
2018	600	
2019	600	
Total 3 Year Units / Participants	1,800	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 352,879	$ 386,725	$ 384,337	$ 1,123,941
NPV Benefits	$ 363,895	$ 386,610	$ 409,861	$ 1,160,366
UCT	**1.03**	**1.00**	**1.07**	**1.03**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	687,491	687,491	687,491	2,062,473
Cumulative kWh Savings	687,491	1,374,982	2,062,473	2,062,473
Lifetime kWh Savings	10,312,371	10,312,371	10,312,371	30,937,112
kW Savings	80.5	80.5	80.5	241.4
Cumulative kW Savings	80.5	160.9	241.4	241.4
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration (Note 2)	$ 53,472	$ 53,472	$ 53,472	$ 160,415
Rebates	$ 288,000	$ 288,000	$ 288,000	$ 864,000
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 341,472	$ 341,472	$ 341,472	$ 1,024,415
Taxes	$ 3,358	$ 3,358	$ 3,358	$ 10,073
ALLOCATED COSTS				
Internal Admin	$ 18,265	$ 41,208	$ 38,724	$ 98,197
Other	$ 9,387	$ 10,784	$ 10,684	$ 30,855
M&V	$ 9,228	$ 21,500	$ 21,500	$ 52,228
Subtotal	$ 40,238	$ 76,849	$ 74,265	$ 191,353
Total PNM Costs	**$ 381,710**	**$ 418,321**	**$ 415,737**	**$ 1,215,767**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 23,950			$ 23,950
2018	$ 26,396	$ 26,396		$ 52,792
2019	$ 27,699	$ 27,699	$ 27,699	$ 83,097
2020	$ 28,464	$ 28,464	$ 28,464	$ 85,392
2021	$ 29,339	$ 29,339	$ 29,339	$ 88,017
2022	$ 38,718	$ 38,718	$ 38,718	$ 116,153
2023	$ 40,629	$ 40,629	$ 40,629	$ 121,887
2024	$ 42,486	$ 42,486	$ 42,486	$ 127,459
2025	$ 44,469	$ 44,469	$ 44,469	$ 133,407
2026	$ 47,183	$ 47,183	$ 47,183	$ 141,548
2027	$ 50,016	$ 50,016	$ 50,016	$ 150,048
2028	$ 52,974	$ 52,974	$ 52,974	$ 158,923
2029	$ 56,062	$ 56,062	$ 56,062	$ 168,186
2030	$ 59,284	$ 59,284	$ 59,284	$ 177,852
2031	$ 62,646	$ 62,646	$ 62,646	$ 187,938
2032	$ -	$ 66,153	$ 66,153	$ 132,305
2033	$ -	$ -	$ 69,810	$ 69,810
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
Totals	**$ 630,315**	**$ 672,518**	**$ 715,932**	**$ 2,018,764**

NOTES

Multi-Family

This is the Multifamily component of the Commercial Comprehensive Program

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	10.00	
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 29,490.22	22,840 rebates for common + ($34.51 + 20% x $100 / fridge) * 122 units
State/Local Credits Per Unit		
Gross Annual kWh Savings Per Unit	169,076	132,000 kWh/common area + 122 units/complex x (223.9 kWh/unit + 20%x400kWh / fridge)
Gross Annual kW Savings Per Unit	24.4	0.2 kw per unit
	:	
Net-to-Gross	100%	
Free Ridership	0%	
Net Annual kWh Savings Per Unit	169,075.80	
Net Annual kW Savings Per Unit	24.40	
	:	
2015	13	One project = 122 units + common area
2016	14	
2017	14	
Total 3 Year Units / Participants	41	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 727,832	$ 799,551	$ 796,276	$ 2,323,659
NPV Benefits	$ 864,177	$ 991,766	$ 1,053,906	$ 2,909,849
UCT	**1.19**	**1.24**	**1.32**	**1.25**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	2,197,985	2,367,061	2,367,061	6,932,108
Cumulative kWh Savings	2,197,985	4,565,047	6,932,108	6,932,108
Lifetime kWh Savings	21,979,854	23,670,612	23,670,612	69,321,078
kW Savings	317.2	341.6	341.6	1,000.4
Cumulative kW Savings	317.2	658.8	1,000.4	1,000.4
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration (1)	$ 306,698	$ 330,290	$ 330,290	$ 967,279
Rebates	$ 383,373	$ 412,863	$ 412,863	$ 1,209,099
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 690,071	$ 743,154	$ 743,154	$ 2,176,378
Taxes	$ 22,694	$ 24,440	$ 24,440	$ 71,574
ALLOCATED COSTS				
Internal Admin	$ 36,912	$ 55,163	$ 51,837	$ 143,912
Other	$ 18,970	$ 23,469	$ 23,252	$ 65,691
M&V	$ 18,649	$ 18,649	$ 18,649	$ 55,946
Subtotal	$ 97,225	$ 121,721	$ 118,178	$ 337,124
Total PNM Costs	**$ 787,296**	**$ 864,874**	**$ 861,332**	**$ 2,513,502**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 81,368			$ 81,368
2018	$ 89,189	$ 96,050		$ 185,238
2019	$ 93,354	$ 100,535	$ 100,535	$ 294,425
2020	$ 95,800	$ 103,170	$ 103,170	$ 302,140
2021	$ 98,597	$ 106,182	$ 106,182	$ 310,961
2022	$ 128,582	$ 138,473	$ 138,473	$ 405,529
2023	$ 134,693	$ 145,054	$ 145,054	$ 424,802
2024	$ 140,631	$ 151,448	$ 151,448	$ 443,527
2025	$ 146,970	$ 158,275	$ 158,275	$ 463,520
2026	$ 155,645	$ 167,618	$ 167,618	$ 490,882
2027	$ -	$ 177,374	$ 177,374	$ 354,748
2028	$ -	$ -	$ 187,559	$ 187,559
2029	$ -	$ -	$ -	$ -
2030	$ -	$ -	$ -	$ -
2031	$ -	$ -	$ -	$ -
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
Totals	**$ 1,164,830**	**$ 1,344,180**	**$ 1,435,690**	**$ 3,944,699**

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	10.58	
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 193.88	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	1,204	See component pages for assumptions.
Gross Annual kW Savings Per Unit	0.53	
Net-to-Gross	63.6%	
Free Ridership	36.4%	
Net Annual kWh Savings Per Unit	765	
Net Annual kW Savings Per Unit	0.34	
	:	
2017	15,619	
2018	15,619	
2019	15,619	
Total 3 Year Units / Participants	46,857	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 5,481,638	$ 5,752,769	$ 5,728,634	$ 16,963,041
NPV Benefits	8,671,959	9,156,247	9,483,710	$ 27,311,916
UCT	1.58	1.59	1.66	1.61

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	11,950,203	12,200,310	12,200,310	36,350,823
Cumulative kWh Savings	11,950,203	24,150,513	36,350,823	36,350,823
Lifetime kWh Savings	126,428,533	130,180,148	130,180,148	386,788,829
kW Savings	5,250	5,300	5,300	15,850.7
Cumulative kW Savings	5,250	10,550	15,851	15,850.7
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	95,880	95,880	95,880	$ 287,640
3rd Party Administration	2,188,665	2,252,949	2,252,949	$ 6,694,563
Rebates	3,028,191	3,028,191	3,028,191	$ 9,084,573
Promotional Costs	100,000	100,000	100,000	$ 300,000
Subtotal	$ 5,412,736	$ 5,477,020	$ 5,477,020	$ 16,366,776
Taxes	$ 89,441	$ 89,441	$ 89,441	$ 268,324
ALLOCATED COSTS				
Internal Admin	289,527	406,548	382,041	$ 1,078,115
Other	60,989	172,966	171,366	$ 405,321
M&V	76,795	76,795	76,795	$ 230,385
Subtotal	$ 516,752	$ 745,750	$ 719,643	$ 1,982,145
Total PNM Costs	**$ 5,929,488**	**$ 6,222,771**	**$ 6,196,663**	**$ 18,348,921**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 724,393	$ -	$ -	$ 724,393
2018	$ 766,916	$ 778,245	$ -	$ 1,545,161
2019	$ 789,563	$ 801,366	$ 801,366	$ 2,392,295
2020	$ 802,863	$ 814,943	$ 814,943	$ 2,432,749
2021	$ 818,069	$ 830,468	$ 830,468	$ 2,479,004
2022	$ 616,863	$ 996,904	$ 996,904	$ 2,610,672
2023	$ 634,851	$ 651,357	$ 1,030,825	$ 2,317,032
2024	$ 652,326	$ 669,508	$ 669,508	$ 1,991,343
2025	$ 670,986	$ 688,889	$ 688,889	$ 2,048,763
2026	$ 696,522	$ 715,412	$ 715,412	$ 2,127,346
2027	$ 723,187	$ 743,108	$ 743,108	$ 2,209,403
2028	$ 751,025	$ 772,022	$ 772,022	$ 2,295,070
2029	$ 780,081	$ 802,202	$ 802,202	$ 2,384,486
2030	$ 810,403	$ 833,696	$ 833,696	$ 2,477,795
2031	$ 842,039	$ 866,555	$ 866,555	$ 2,575,148
2032	$ 186,863	$ 900,831	$ 900,831	$ 1,988,524
2033	$ -	$ 197,403	$ 936,578	$ 1,133,981
2034	$ -	$ -	$ 202,027	$ 202,027
2035	$ -	$ -	$ -	$ -
Totals	**$ 11,266,949**	**$ 12,062,909**	**$ 12,605,335**	**$ 35,935,193**

NOTES

Residential Cooling

This is the residential cooling component of the Residential Comprehensive Program

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	15.00	2015 M&V
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 338.42	Estimate based on incentive levels
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	1,615	2015 M&V
Gross Annual kW Savings Per Unit	1.63	2015 M&V
	:	
Net-to-Gross	45%	2015 M&V
Free Ridership	55%	
Net Annual kWh Savings Per Unit	727.55	
Net Annual kW Savings Per Unit	0.74	
	:	
2017	4,794	
2018	4,794	
2019	4,794	
Total 3 Year Units / Participants	14,382	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 2,262,406	$ 2,313,330	$ 2,303,553	$ 6,879,290
NPV Benefits	$ 5,587,072	$ 5,702,314	$ 5,820,272	$ 17,109,658
UCT	**2.47**	**2.46**	**2.53**	**2.49**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	3,487,892	3,487,892	3,487,892	10,463,675
Cumulative kWh Savings	3,487,892	6,975,783	10,463,675	10,463,675
Lifetime kWh Savings	52,318,376	52,318,376	52,318,376	156,955,127
kW Savings	3,525.6	3,525.6	3,525.6	10,576.8
Cumulative kW Savings	3,525.6	7,051.2	10,576.8	10,576.8
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	$ 95,880	$ 95,880	$ 95,880	$ 287,640
3rd Party Administration	$ 400,299	$ 400,299	$ 400,299	$ 1,200,897
Rebates	$ 1,622,400	$ 1,622,400	$ 1,622,400	$ 4,867,200
Promotional Costs	$ 100,000	$ 100,000	$ 100,000	$ 300,000
Subtotal	$ 2,218,579	$ 2,218,579	$ 2,218,579	$ 6,655,737
Taxes	$ 25,136	$ 25,136	$ 25,136	$ 75,408
ALLOCATED COSTS				
Internal Admin	$ 118,672	$ 164,681	$ 154,753	$ 438,106
Other	$ 60,989	$ 70,064	$ 69,415	$ 200,467
M&V	$ 23,870	$ 23,870	$ 23,870	$ 71,610
Subtotal	$ 228,666	$ 283,750	$ 273,175	$ 785,591
Total PNM Costs	**$ 2,447,245**	**$ 2,502,329**	**$ 2,491,754**	**$ 7,441,328**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 370,899			$ 370,899
2018	$ 383,310	$ 383,310		$ 766,621
2019	$ 389,920	$ 389,920	$ 389,920	$ 1,169,761
2020	$ 393,802	$ 393,802	$ 393,802	$ 1,181,406
2021	$ 398,240	$ 398,240	$ 398,240	$ 1,194,721
2022	$ 445,822	$ 445,822	$ 445,822	$ 1,337,466
2023	$ 455,520	$ 455,520	$ 455,520	$ 1,366,559
2024	$ 464,941	$ 464,941	$ 464,941	$ 1,394,823
2025	$ 475,001	$ 475,001	$ 475,001	$ 1,425,002
2026	$ 488,768	$ 488,768	$ 488,768	$ 1,466,303
2027	$ 503,143	$ 503,143	$ 503,143	$ 1,509,430
2028	$ 518,151	$ 518,151	$ 518,151	$ 1,554,454
2029	$ 533,816	$ 533,816	$ 533,816	$ 1,601,448
2030	$ 550,163	$ 550,163	$ 550,163	$ 1,650,489
2031	$ 567,218	$ 567,218	$ 567,218	$ 1,701,655
2032	$ -	$ 585,010	$ 585,010	$ 1,170,019
2033	$ -	$ -	$ 603,564	$ 603,564
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
Totals	**$ 6,938,716**	**$ 7,152,826**	**$ 7,373,080**	**$ 21,464,622**

NOTES

Refrigerator Recycling

This is the refrigerator recycling component of the Residential Comprehensive Program

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	5.00	2015 M&V
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 50.34	2015 M&V
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	1,005	2015 M&V
Gross Annual kW Savings Per Unit	0.24	2015 M&V
	:	
Net-to-Gross	68%	2015 M&V
Free Ridership	32%	
Net Annual kWh Savings Per Unit	685.07	
Net Annual kW Savings Per Unit	0.17	
	:	
2017	8,000	Forecasted units based on previous year participaton
2018	8,000	
2019	8,000	
Total 3 Year Units / Participants	24,000	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 1,136,523	$ 1,258,681	$ 1,253,256	$ 3,648,459
NPV Benefits	$ 1,184,973	$ 1,272,277	$ 1,357,502	$ 3,814,752
UCT	**1.04**	**1.01**	**1.08**	**1.05**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	5,480,581	5,480,581	5,480,581	16,441,742
Cumulative kWh Savings	5,480,581	10,961,161	16,441,742	16,441,742
Lifetime kWh Savings	27,402,903	27,402,903	27,402,903	82,208,708
kW Savings	1,336	1,336	1,336	4,008
Cumulative kW Savings	1,336	2,672	4,008	4,008
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 764,276	$ 828,560	$ 828,560	$ 2,421,396
Rebates	$ 402,680	$ 402,680	$ 402,680	$ 1,208,040
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 1,166,956	$ 1,231,240	$ 1,231,240	$ 3,629,436
Taxes	$ -	$ -	$ -	$ -
ALLOCATED COSTS				
Internal Admin	$ 62,420	$ 91,392	$ 85,883	$ 239,696
Other	$ -	$ 38,883	$ 38,523	$ 77,406
M&V	$ -	$ -	$ -	$ -
Subtotal	$ 62,420	$ 130,275	$ 124,406	$ 317,102
Total PNM Costs	**$ 1,229,376**	**$ 1,361,515**	**$ 1,355,647**	**$ 3,946,538**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 246,503			$ 246,503
2018	$ 266,005	$ 266,005		$ 532,010
2019	$ 276,391	$ 276,391	$ 276,391	$ 829,174
2020	$ 282,491	$ 282,491	$ 282,491	$ 847,472
2021	$ 289,464	$ 289,464	$ 289,464	$ 868,393
2022	$ -	$ 364,230	$ 364,230	$ 728,461
2023	$ -	$ -	$ 379,468	$ 379,468
2024	$ -	$ -	$ -	$ -
2025	$ -	$ -	$ -	$ -
2026	$ -	$ -	$ -	$ -
2027	$ -	$ -	$ -	$ -
2028	$ -	$ -	$ -	$ -
2029	$ -	$ -	$ -	$ -
2030	$ -	$ -	$ -	$ -
2031	$ -	$ -	$ -	$ -
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
Totals	**$ 1,360,854**	**$ 1,478,581**	**$ 1,592,044**	**$ 4,431,479**

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	15.66	Assumptions based on 2015 M&V and NM TRM values
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 355.08	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	1,071	
Gross Annual kW Savings Per Unit	0.14	
Net-to-Gross	98.6%	
Free Ridership	1.4%	
Net Annual kWh Savings Per Unit	1,055	
Net Annual kW Savings Per Unit	0.14	
	:	
2015	2,825	
2016	2,825	
2017	2,825	
Total 3 Year Units / Participants	8,475	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 2,082,709	$ 2,180,758	$ 2,171,825	$ 6,435,292
NPV Benefits	$ 1,899,914	$ 2,181,656	$ 2,305,936	$ 6,387,506
UCT	**0.91**	**1.00**	**1.06**	**0.99**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	2,981,730	3,231,838	3,231,838	9,445,406
Cumulative kWh Savings	2,981,730	6,213,568	9,445,406	9,445,406
Lifetime kWh Savings	46,707,254	50,458,870	50,458,870	147,624,994
kW Savings	388	439	439	1,265.5
Cumulative kW Savings	388	827	1,265	1,265.5
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	-	-	-	$ -
3rd Party Administration	1,024,090	1,024,090	1,024,090	$ 3,072,270
Rebates	1,003,111	1,003,111	1,003,111	$ 3,009,333
Promotional Costs	-	-	-	$ -
Subtotal	$ 2,027,201	$ 2,027,201	$ 2,027,201	$ 6,081,603
Taxes	64,305	64,305	64,305	$ 192,916
ALLOCATED COSTS				
Internal Admin	108,435	150,475	141,404	$ 400,314
Other	-	64,020	63,428	$ 127,447
M&V	52,925	52,925	52,925	$ 158,775
Subtotal	$ 225,665	$ 331,725	$ 322,062	$ 879,452
Total PNM Costs	**$ 2,252,866**	**$ 2,358,926**	**$ 2,349,263**	**$ 6,961,055**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2013	$ 106,991	$ -	$ -	$ 106,991
2014	$ 117,601	$ 128,929	$ -	$ 246,530
2015	$ 123,252	$ 135,054	$ 135,054	$ 393,360
2016	$ 126,570	$ 138,651	$ 138,651	$ 403,871
2017	$ 130,364	$ 142,763	$ 142,763	$ 415,890
2018	$ 171,041	$ 186,852	$ 186,852	$ 544,745
2019	$ 179,331	$ 195,837	$ 195,837	$ 571,006
2020	$ 187,385	$ 204,567	$ 204,567	$ 596,520
2021	$ 195,985	$ 213,888	$ 213,888	$ 623,762
2022	$ 207,754	$ 226,645	$ 226,645	$ 661,043
2023	$ 220,044	$ 239,965	$ 239,965	$ 699,973
2024	$ 232,874	$ 253,871	$ 253,871	$ 740,616
2025	$ 246,265	$ 268,386	$ 268,386	$ 783,037
2026	$ 260,240	$ 283,533	$ 283,533	$ 827,306
2027	$ 274,820	$ 299,336	$ 299,336	$ 873,493
2028	$ 186,863	$ 315,821	$ 315,821	$ 818,505
2029	$ -	$ 197,403	$ 333,014	$ 530,417
2030	$ -	$ -	$ 202,027	$ 202,027
2031	$ -	$ -	$ -	$ -
Totals	**$ 2,967,379**	**$ 3,431,502**	**$ 3,640,211**	**$ 10,039,092**

NOTES

Residential Lighting

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	14.00	Consistent with 2015 M&V
Incremental Cost Per Unit	$ 5.14	EFI Estimate
Rebate Cost Per Unit	$ 3.11	EFI Estimate adjusted for higher # or bulbs
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	27.46	Consistent with 2015 M&V
Gross Annual kW Savings Per Unit	0.0032	Consistent with 2015 M&V
	:	
Net-to-Gross	69%	Consistent with 2015 M&V
Free Ridership	31%	
Net Annual kWh Savings Per Unit	19.05	
Net Annual kW Savings Per Unit	0.0022	
	:	
2017	850,000	EFI Estimate
2018	850,000	
2019	850,000	
Total 3 Year Units / Participants	850,000	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 3,381,509	$ 3,476,457	$ 3,481,047	$ 10,339,014
NPV Benefits	$ 7,976,545	$ 8,486,031	$ 9,007,037	$ 25,469,613
UCT	**2.36**	**2.44**	**2.59**	**2.46**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	16,189,592	16,189,592	16,189,592	48,568,775
Cumulative kWh Savings	16,189,592	32,379,183	48,568,775	48,568,775
Lifetime kWh Savings	226,654,283	226,654,283	226,654,283	679,962,848
kW Savings	1,864.6	1,864.6	1,864.6	5,593.9
Cumulative kW Savings	1,864.6	3,729.3	5,593.9	5,593.9
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS	3.15%			
Rebate Processing	$ 83,289	$ 83,289	$ 83,289	$ 249,866
3rd Party Administration	$ 580,098	$ 597,501	$ 615,426	$ 1,793,025
Rebates	$ 2,644,087	$ 2,644,087	$ 2,644,087	$ 7,932,262
Promotional Costs	$ 10,000	$ 10,000	$ 10,000	$ 30,000
Subtotal	$ 3,317,474	$ 3,334,877	$ 3,352,802	$ 10,005,154
Taxes	$ 41,656	$ 42,749	$ 43,874	$ 128,279
ALLOCATED COSTS				
Internal Admin	$ 177,451	$ 247,541	$ 233,869	$ 658,862
Other	$ 91,197	$ 105,317	$ 104,903	$ 301,417
M&V	$ 30,000	$ 30,000	$ 30,000	$ 90,000
Subtotal	$ 340,304	$ 425,606	$ 412,647	$ 1,178,557
Total PNM Costs	**$ 3,657,779**	**$ 3,760,484**	**$ 3,765,449**	**$ 11,183,711**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 561,587			$ 561,587
2018	$ 619,195	$ 619,195		$ 1,238,390
2019	$ 649,876	$ 649,876	$ 649,876	$ 1,949,629
2020	$ 667,894	$ 667,894	$ 667,894	$ 2,003,681
2021	$ 688,494	$ 688,494	$ 688,494	$ 2,065,482
2022	$ 909,353	$ 909,353	$ 909,353	$ 2,728,058
2023	$ 954,365	$ 954,365	$ 954,365	$ 2,863,094
2024	$ 998,096	$ 998,096	$ 998,096	$ 2,994,288
2025	$ 1,044,789	$ 1,044,789	$ 1,044,789	$ 3,134,367
2026	$ 1,108,690	$ 1,108,690	$ 1,108,690	$ 3,326,071
2027	$ 1,175,417	$ 1,175,417	$ 1,175,417	$ 3,526,252
2028	$ 1,245,080	$ 1,245,080	$ 1,245,080	$ 3,735,239
2029	$ 1,317,790	$ 1,317,790	$ 1,317,790	$ 3,953,371
2030	$ 1,393,667	$ 1,393,667	$ 1,393,667	$ 4,181,002
2031	$ -	$ 1,472,833	$ 1,472,833	$ 2,945,665
2032	$ -	$ -	$ 1,555,412	$ 1,555,412
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
Totals	**$13,334,293**	**$14,245,539**	**$15,181,757**	**$ 42,761,589**

NOTES

New Home Construction

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	17.00	Savings data based on vendor proposal
Incremental Cost Per Unit	$ 929.57	
Rebate Cost Per Unit	$ 527.14	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	1,284.43	
Gross Annual kW Savings Per Unit	0.376	
Net-to-Gross	80.0%	
Free Ridership	20%	
Net Annual kWh Savings Per Unit	1,027.54	
Net Annual kW Savings Per Unit	0.301	
	:	
2017	700	Number of homes = 700 (200 prescriptive + 500 performance) Vendor savings based on 900 "measures"
2018	700	
2019	700	
Total 3 Year Units / Participants	2,100	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 569,657	$ 603,015	$ 600,468	$ 1,773,139
NPV Benefits	$ 601,355	$ 626,651	$ 651,914.76	$ 1,879,920
UCT	**1.06**	**1.04**	**1.09**	**1.06**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	719,280	719,280	719,280	2,157,840
Cumulative kWh Savings	719,280	1,438,560	2,157,840	2,157,840
Lifetime kWh Savings	12,227,760	12,227,760	12,227,760	36,683,280
kW Savings	210.6	210.6	210.6	631.8
Cumulative kW Savings	210.6	421.2	631.8	631.8
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 190,000	$ 209,000	$ 209,000	$ 608,000
Rebates	$ 369,000	$ 369,000	$ 369,000	$ 1,107,000
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 559,000	$ 578,000	$ 578,000	$ 1,715,000
Taxes	$ 11,931	$ 13,124	$ 13,124	$ 38,178
ALLOCATED COSTS				
Internal Admin	$ 29,901	$ 42,904	$ 40,317	$ 113,122
Other	$ 15,367	$ 18,253	$ 18,085	$ 51,705
M&V	$ -	$ -	$ -	$ -
Subtotal	$ 57,198	$ 74,281	$ 71,526	$ 203,005
Total PNM Costs	**$ 616,198**	**$ 652,281**	**$ 649,526**	**$ 1,918,005**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 35,171			$ 35,171
2018	$ 37,730	$ 37,730		$ 75,461
2019	$ 39,094	$ 39,094	$ 39,094	$ 117,281
2020	$ 39,894	$ 39,894	$ 39,894	$ 119,682
2021	$ 40,809	$ 40,809	$ 40,809	$ 122,428
2022	$ 50,622	$ 50,622	$ 50,622	$ 151,865
2023	$ 52,622	$ 52,622	$ 52,622	$ 157,865
2024	$ 54,564	$ 54,564	$ 54,564	$ 163,693
2025	$ 56,639	$ 56,639	$ 56,639	$ 169,917
2026	$ 59,478	$ 59,478	$ 59,478	$ 178,434
2027	$ 62,443	$ 62,443	$ 62,443	$ 187,328
2028	$ 65,538	$ 65,538	$ 65,538	$ 196,613
2029	$ 68,768	$ 68,768	$ 68,768	$ 206,304
2030	$ 72,139	$ 72,139	$ 72,139	$ 216,417
2031	$ 75,656	$ 75,656	$ 75,656	$ 226,969
2032	$ 79,325	$ 79,325	$ 79,325	$ 237,976
2033	$ 83,152	$ 83,152	$ 83,152	$ 249,455
2034	$ -	$ 84,831	$ 84,831	$ 169,661
2035	$ -	$ -	$ 86,580	$ 86,580
Totals	**$ 973,644**	**$ 1,023,303**	**$ 1,072,153**	**$ 3,069,100**

NOTES

PNM Home Works

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	11.00	Estimated lifetime for 3 LED package
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 30.00	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	176.5	Estimated savings for new kit design
Gross Annual kW Savings Per Unit	0.0036	Estimated savings for new kit design
	:	
Net-to-Gross	100.0%	2015 M&V
Free Ridership	0%	
Net Annual kWh Savings Per Unit	176.53	
Net Annual kW Savings Per Unit	0.00	
	:	
2017	9,500	Forecasted units based on previous year target
2018	9,500	
2019	9,500	
Total 3 Year Units / Participants	28,500	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 511,034	$ 522,089	$ 519,966	$ 1,553,089
NPV Benefits	$ 550,030	$ 597,851	$ 646,563	$ 1,794,444
UCT	**1.08**	**1.15**	**1.24**	**1.16**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	1,677,040	1,677,040	1,677,040	5,031,121
Cumulative kWh Savings	1,677,040	3,354,081	5,031,121	5,031,121
Lifetime kWh Savings	18,447,443	18,447,443	18,447,443	55,342,330
kW Savings	34.2	34.2	34.2	102.7
Cumulative kW Savings	34.2	68.5	102.7	102.7
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 196,604	$ 196,604	$ 196,604	$ 589,811
Rebates	$ 285,000	$ 285,000	$ 285,000	$ 855,000
Promotional Costs	$ -	$ -	$ -	$ -
Subtotal	$ 481,604	$ 481,604	$ 481,604	$ 1,444,811
Taxes	$ 24,682	$ 24,682	$ 24,682	$ 74,047
ALLOCATED COSTS				
Internal Admin	$ 25,761	$ 35,748	$ 33,593	$ 95,103
Other	$ 13,239	$ 15,209	$ 15,069	$ 43,517
M&V	$ 7,500	$ 7,500	$ 7,500	$ 22,500
Subtotal	$ 71,182	$ 83,140	$ 80,844	$ 235,166
Total PNM Costs	**$ 552,786**	**$ 564,743**	**$ 562,448**	**$ 1,679,977**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2017	$ 45,460			$ 45,460
2018	$ 51,428	$ 51,428		$ 102,856
2019	$ 54,606	$ 54,606	$ 54,606	$ 163,818
2020	$ 56,472	$ 56,472	$ 56,472	$ 169,417
2021	$ 58,606	$ 58,606	$ 58,606	$ 175,819
2022	$ 81,485	$ 81,485	$ 81,485	$ 244,454
2023	$ 86,147	$ 86,147	$ 86,147	$ 258,442
2024	$ 90,677	$ 90,677	$ 90,677	$ 272,032
2025	$ 95,514	$ 95,514	$ 95,514	$ 286,542
2026	$ 102,134	$ 102,134	$ 102,134	$ 306,401
2027	$ 109,046	$ 109,046	$ 109,046	$ 327,137
2028	$ -	$ 116,262	$ 116,262	$ 232,523
2029	$ -	$ -	$ 123,794	$ 123,794
2030	$ -	$ -	$ -	$ -
2031	$ -	$ -	$ -	$ -
2032	$ -	$ -	$ -	$ -
2033	$ -	$ -	$ -	$ -
2034	$ -	$ -	$ -	$ -
2035	$ -	$ -	$ -	$ -
Totals	**$ 831,575**	**$ 902,377**	**$ 974,743**	**$ 2,708,695**

NOTES

Easy Savings Kits

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	SOURCE:
Lifetime Years	16.00	2015 M&V
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 30.00	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	185	2015 M&V
Gross Annual kW Savings Per Unit	0.013	2015 M&V
	:	
Net-to-Gross	100%	2015 M&V
Free Ridership	0%	
Net Annual kWh Savings Per Unit	185.32	
Net Annual kW Savings Per Unit	0.01	
	:	
2017	6,200	
2018	6,000	
2019	6,000	
Total 3 Year Units / Participants	18,200	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 366,924	$ 362,963	$ 361,494	$ 1,091,382
NPV Benefits	$ 693,108	$ 716,856	$ 762,868	$ 2,172,832
UCT	**1.89**	**1.98**	**2.11**	**1.99**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	1,148,984	1,111,920	1,111,920	3,372,824
Cumulative kWh Savings	1,148,984	2,260,904	3,372,824	3,372,824
Lifetime kWh Savings	18,383,744	17,790,720	17,790,720	53,965,184
kW Savings	80.0	77.4	77.4	234.8
Cumulative kW Savings	80.0	157.4	234.8	234.8
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	$ -	$ -	$ -	$ -
3rd Party Administration	$ 146,382	$ 141,660	$ 141,660	$ 429,702
Rebates	$ 186,000	$ 180,000	$ 180,000	$ 546,000
Promotional Costs	$ 12,090	$ 11,700	$ 11,700	$ 35,490
Subtotal	$ 344,472	$ 333,360	$ 333,360	$ 1,011,192
Taxes	$ 17,035	$ 16,485	$ 16,485	$ 50,005
ALLOCATED COSTS				
Internal Admin	$ 18,426	$ 24,745	$ 23,253	$ 66,423
Other	$ 9,470	$ 10,528	$ 10,430	$ 30,427
M&V	$ 7,500	$ 7,500	$ 7,500	$ 22,500
Subtotal	$ 52,430	$ 59,257	$ 57,668	$ 169,356
Total PNM Costs	**$ 396,902**	**$ 392,617**	**$ 391,028**	**$ 1,180,548**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2013	$ 35,668			$ 35,668
2014	$ 39,756	$ 38,474		$ 78,230
2015	$ 41,934	$ 40,581	$ 40,581	$ 123,096
2016	$ 43,212	$ 41,818	$ 41,818	$ 126,849
2017	$ 44,674	$ 43,233	$ 43,233	$ 131,141
2018	$ 60,349	$ 58,402	$ 58,402	$ 177,153
2019	$ 63,543	$ 61,494	$ 61,494	$ 186,531
2020	$ 66,647	$ 64,497	$ 64,497	$ 195,641
2021	$ 69,961	$ 67,704	$ 67,704	$ 205,369
2022	$ 74,496	$ 72,093	$ 72,093	$ 218,682
2023	$ 79,232	$ 76,676	$ 76,676	$ 232,583
2024	$ 84,176	$ 81,460	$ 81,460	$ 247,096
2025	$ 89,336	$ 86,454	$ 86,454	$ 262,244
2026	$ 94,721	$ 91,665	$ 91,665	$ 278,052
2027	$ 100,339	$ 97,103	$ 97,103	$ 294,545
2028	$ 106,200	$ 102,774	$ 102,774	$ 311,749
2029	$ -	$ 108,689	$ 108,689	$ 217,379
2030	$ -	$ -	$ 111,285	$ 111,285
2031	$ -	$ -	$ -	$ -
Totals	**$ 1,094,244**	**$ 1,133,118**	**$ 1,205,929**	**$ 3,433,291**

NOTES

Energy Smart (MFA)

TECHNICAL ASSUMPTIONS		
Measure Type	Residential	**SOURCE:**
Lifetime Years	17.03	Assumptions based on MFA proposal
Incremental Cost Per Unit	$ -	
Rebate Cost Per Unit	$ 68.39	
State/Local Credits Per Unit	$ -	
Gross Annual kWh Savings Per Unit	115	
Gross Annual kW Savings Per Unit	0.02	
Net-to-Gross	100.0%	
Free Ridership	0.0%	
Net Annual kWh Savings Per Unit	115	
Net Annual kW Savings Per Unit	0.02	
	:	
2017	2,605	
2018	2,605	
2019	2,605	
Total 3 Year Units / Participants	7,815	

	2017	2018	2019	TOTALS
	:	:	:	:
	:	:	:	:
	:	:	:	:

UCT	2017	2018	2019	TOTALS
NPV Cost	$ 199,294	$ 194,604	$ 193,793	$ 587,691
NPV Benefits	$ 224,586	$ 237,204	$ 243,563	$ 705,353
UCT	**1.13**	**1.22**	**1.26**	**1.20**

SAVINGS	2017	2018	2019	TOTALS
Incremental (Annual) kWh Savings	300,551	300,551	300,551	901,652
Cumulative kWh Savings	300,551	601,101	901,652	901,652
Lifetime kWh Savings	5,118,743	5,118,743	5,118,743	15,356,230
kW Savings	40	40	40	120.8
Cumulative kW Savings	40	81	121	120.8
	:	:	:	:

PNM COSTS	2017	2018	2019	TOTALS
DIRECT COSTS				
Rebate Processing	-	-	-	$ -
3rd Party Administration	17,814	17,814	17,814	$ 53,443
Rebates	178,143	178,143	178,143	$ 534,429
Promotional Costs	-	-	-	$ -
Subtotal	$ 195,957	$ 195,957	$ 195,957	$ 587,872
Taxes	-	-	-	$ -
ALLOCATED COSTS				
Internal Admin	10,482	14,546	13,669	$ 38,696
Other	5,387	-	-	$ 5,387
M&V	3,750	-	-	$ 3,750
Subtotal	$ 19,619	$ 14,546	$ 13,669	$ 47,833
Total PNM Costs	**$ 215,576**	**$ 210,503**	**$ 209,626**	**$ 635,705**

BENEFITS of Avoided Cost of Energy, Demand and CO2

Year	2017	2018	2019	TOTALS
2013	$ 10,877	$ -	$ -	$ 10,877
2014	$ 11,946	$ 11,946	$ -	$ 23,893
2015	$ 12,516	$ 12,516	$ 12,516	$ 37,548
2016	$ 12,850	$ 12,850	$ 12,850	$ 38,551
2017	$ 13,233	$ 13,233	$ 13,233	$ 39,698
2018	$ 17,333	$ 17,333	$ 17,333	$ 51,999
2019	$ 18,168	$ 18,168	$ 18,168	$ 54,505
2020	$ 18,980	$ 18,980	$ 18,980	$ 56,941
2021	$ 19,847	$ 19,847	$ 19,847	$ 59,542
2022	$ 21,033	$ 21,033	$ 21,033	$ 63,100
2023	$ 22,272	$ 22,272	$ 22,272	$ 66,817
2024	$ 23,565	$ 23,565	$ 23,565	$ 70,696
2025	$ 24,915	$ 24,915	$ 24,915	$ 74,746
2026	$ 26,324	$ 26,324	$ 26,324	$ 78,972
2027	$ 27,794	$ 27,794	$ 27,794	$ 83,381
2028	$ 23,219	$ 29,327	$ 29,327	$ 81,872
2029	$ 24,480	$ 24,480	$ 30,925	$ 79,885
2030	$ 14,858	$ 25,033	$ 25,033	$ 64,924
2031	$ -	$ 15,191	$ 25,609	$ 40,800
Totals	**$ 344,212**	**$ 364,808**	**$ 369,726**	**$ 1,078,746**

NOTES

2017 Energy Efficiency Program Filing
LOAD MANAGEMENT PROGRAMS

Power Saver

Year	Event Hours	MW Capacity	Event MWh Saved	Capacity Cost	Customer Incentives	Admin & Other	M&V	GRT	Annual Cost	Avoided Cost Capacity	Avoided Cost Energy	Annual Benefit	UCT	Annual Energy Benefit	Annual Capacity Benefit
2008	22	27.37	-	$ 2,582,989	$ -	$ 313,651	$ 67,480		$ 2,964,120	$ 114.88	$ 0.0700	$ 3,143,691	1.38	$ -	$ 3,143,691
2009	26	36.41	275	$ 3,016,545	$ 1,103,855	$ 147,632	$147,886		$ 4,415,918	$ 114.88	$ 0.0780	$ 4,204,014	1.30	$ 21,233	$ 4,182,781
2010	4	39.50	-	$ 2,725,953	$ 1,159,663	$ 109,188	$101,147		$ 4,095,952	$ 114.88	$ 0.0870	$ 4,537,645	1.23	$ -	$ 4,537,645
2011	45	37.40	325	$ 3,940,533	$ 1,492,891	$ 369,821	$ 65,786		$ 5,869,031	$ 114.88	$ 0.0626	$ 4,316,666	1.15	$ 20,154	$ 4,296,512
2012	42	38.62	579	$ 3,479,839	$ 1,517,495	$ 377,591	$ 18,320		$ 5,393,244	$ 114.88	$ 0.0714	$ 4,477,364	1.13	$ 40,928	$ 4,436,436
2013	62	43.24	725	$ 3,716,122	$ 1,569,520	$ 359,160	$ 23,169		$ 5,667,971	$ 114.88	$ 0.0728	$ 5,019,603	1.10	$ 52,192	$ 4,967,411
2014	36	42.83	482	$ 4,741,764	$ 1,822,318	$ 147,971	$ 8,315		$ 6,720,369	$ 114.88	$ 0.0744	$ 4,955,386	1.05	$ 35,443	$ 4,919,943
2015	59	42.22	581	$ 3,539,325	$ 1,706,631	$ 320,263	$ 12,056		$ 5,578,276	$ 114.88	$ 0.0818	$ 4,897,226	1.08	$ 46,992	$ 4,850,234
2016	50	44.00	550	$ 4,065,600	$ 1,670,389	$ 233,036	$ 12,500	$ 269,923	$ 6,251,448	$ 114.88	$ 0.0833	$ 5,100,039	1.07	$ 45,319	$ 5,054,720
2017	50	48.00	600	$ 2,534,400	$ 1,822,242	$ 352,800	$ 12,500	$ 181,295	$ 4,903,237	$ 114.88	$ 0.0238	$ 5,528,370	1.22	$ 14,130	$ 5,514,240
Total Costs				**$ 34,343,070**	**$ 13,865,004**	**$ 2,731,115**	**$ 469,159**	**$ 451,218**	**$ 51,859,566**			**$ 46,180,005**	**1.38**	**$ 276,393**	**$ 45,903,613**

Peak Saver

Year	Event Hours	MW Capacity	Event MWh Saved	Capacity Cost	Customer Incentives	Admin & Other	M&V	GRT	Annual Cost	Avoided Cost Capacity	Avoided Cost Energy	Annual Benefit	UCT	Annual Energy Benefit	Annual Capacity Benefit
2008	22	20.00	-	$ 892,914	$ -	$ 127,896	$ 23,781		$ 1,044,591	$ 114.88	$ 0.0700	$ 2,297,600	1.87	$ -	$ 2,297,600
2009	26	17.00	389	$ 694,877	$ 680,000	$ 83,518	$ 49,345		$ 1,507,740	$ 114.88	$ 0.0780	$ 1,983,011	1.68	$ 30,051	$ 1,952,960
2010	5	29.64	-	$ 1,344,827	$ 1,185,600	$ 89,716	$ 65,538		$ 2,685,681	$ 114.88	$ 0.0870	$ 3,405,043	1.59	$ -	$ 3,405,043
2011	45	19.50	720	$ 1,169,250	$ 780,000	$ 77,800	$ 10,055		$ 2,037,105	$ 114.88	$ 0.0626	$ 2,284,765	1.52	$ 44,605	$ 2,240,160
2012	42	18.80	602	$ 1,028,566	$ 751,800	$ 125,221	$ 18,320		$ 1,923,906	$ 114.88	$ 0.0714	$ 2,201,719	1.48	$ 42,549	$ 2,159,170
2013	62	19.14	1,001	$ 1,257,905	$ 713,400	$ 156,568	$ 23,169		$ 2,151,042	$ 114.88	$ 0.0728	$ 2,271,138	1.43	$ 72,105	$ 2,199,033
2014	36	18.05	725	$ 749,953	$ 722,160	$ 214,971	$ 8,315		$ 1,695,400	$ 114.88	$ 0.0744	$ 2,127,406	1.42	$ 53,363	$ 2,074,044
2015	59	17.20	812	$ 892,217	$ 687,920	$ 74,147	$ 12,056		$ 1,666,340	$ 114.88	$ 0.0818	$ 2,041,384	1.33	$ 65,677	$ 1,975,706
2016	50	15.00	750	$ 832,500	$ 600,000	$ 91,949	$ 12,500	$ 58,049	$ 1,594,998	$ 114.88	$ 0.0833	$ 1,784,999	1.24	$ 61,799	$ 1,723,200
2017	50	18.00	900	$ 999,000	$ 720,000	$ 139,204	$ 12,500	$ 71,471	$ 1,942,175	$ 114.88	$ 0.0238	$ 2,089,035	1.16	$ 21,195	$ 2,067,840
Total Costs				**$ 9,862,008**	**$ 6,840,880**	**$ 1,180,991**	**$ 235,579**	**$ 129,520**	**$ 18,248,978**			**$ 22,486,101**	**1.87**	**$ 391,345**	**$ 22,094,756**

PNM Calendar Year 2015 Energy Efficiency Program - Post M&V Final Performance Metrics

Program Measure	Unit Type	Units	Gross				NTGR	Net				Lifetime kWh	EUL	Average Incremental Cost $/Unit	Rebate $/Unit
			kWh	kW	kWh/Unit	kW/Unit		kWh	kW	kWh/Unit	kW/Unit				
Refrigerator Recycling	Refrigerator	7,593	7,627,208	1,859	1,004.5	0.2449	68%	5,201,756	1,268.15	685.1	0.1670	25,368,831	4.9	$ -	$ 50.34
Residential Lighting	Bulb	1,124,914	30,293,153	3,768	26.9	0.0033	69%	21,023,357	2,615.10	18.7	0.0023	190,713,527	9.1	$ -	$ 1.14
Home Energy Check-Up	Home	1,584	595,784	77	376.1	0.0487	98%	583,204	73.5	368.2	0.0464	5,927,875	10.2	$ -	$ 63.52
Residential Cooling	Unit	3,212	5,186,885	5,243	1,614.8	1.6323	45%	2,336,902	2,336.8	727.6	0.7275	34,668,354	14.8	$ -	$ 230.85
Home Energy Reports	Participant	56,171	9,131,923	1,035	162.6	0.0184	100%	9,131,923	1,035.4	162.6	0.0184	9,131,923	1.0	$ -	
PNM Home Works	Kit	5,810	790,741	87	136.1	0.0150	100%	790,741	87.2	136.1	0.0150	8,540,003	10.8	$ -	$ 22.00
Multifamily	Bulb	2	15,182	-	7,591.0	-	100%	15,182	0.0	7,591.0	-	136,638	9.0	$ -	$ 1.90
Commercial Comp - NCRR	Participant	329	31,003,706	4,745	94,236.2	14.4211	81%	25,078,678	3,714.8	76,227.0	11.2912	274,479,053	10.9	$ -	$ 6,261.62
Commercial Comp - QS	Participant	322	9,345,840	742	29,024.3	2.3052	87%	8,168,264	648.8	25,367.3	2.0148	98,019,171	12.0	$ -	$ 2,723.14
Commercial Comp - BTU	Participant	63	2,388,953	-	37,919.9	-	87%	2,078,389	0.0	32,990.3	-	12,470,335	6.0	$ -	$ 1,655.52
Commercial Comp - Mid	Unit	418	532,169	62	1,273.1	0.1490	80%	425,735	49.8	1,018.5	0.1192	6,386,028	15.0	$ -	$ 30.00
Easy Savings	Kit	7,199	1,334,119	93	185.3	0.0129	100%	1,334,119	92.9	185.3	0.0129	20,943,292	15.7	$ -	$ 30.00
LI Refrigerator	Refrigerator	151	152,706	27	1,011.3	0.1810	100%	152,706	27.3	1,011.3	0.1810	2,748,713	18.0	$ -	$ 662.50
LI CFL	Bulb	3,497	92,671	11	26.5	0.0031	100%	92,671	10.8	26.5	0.0031	648,694	7.0	$ -	$ 1.50
LI Home Energy Check-Up	Home	1,145	1,286,825	117	1,123.9	0.1022	100%	1,286,825	117	1,123.9	0.1022	19,343,634	15.0	$ -	$ 460.57
Lrg. Customer Self-Direct	Participant	3	187,429	34	62,476.3	11.3333	100%	187,429	34.0	62,476.3	11.3333	2,811,435	15.0	$ -	
PNM Power Saver (DR)	AC Unit	45,541	580,762	42,220	12.8	0.9271	100%	580,762	42,220	12.8	0.9271	580,762	1.0	$ -	$ 37.96
PNM Peak Saver (DR)	Participant	103	811,680	14,900	7,880.4	144.6602	100%	811,680	14,900	7,880.4	144.6602	811,680	1.0	$ -	$ 6,565.09
			101,357,735	75,021			78%	79,280,322	69,231			713,729,948	9.0		