



PNM Energy Efficiency Program

2021 Annual Report



April 15, 2022

Table of Contents

- April 15, 2022 1
- Introduction 3**
- Program Results Summary 3**
- Program Information 5**
 - Commercial Comprehensive 5
 - Residential Comprehensive 6
 - Residential Lighting 9
 - PNM Home Works 10
 - New Home Construction 11
 - Low-Income Focused Programs 11
 - Behavioral Comprehensive 12
 - Market Transformation 13
 - Power Saver and Peak Saver Load Management 13
- Program Benefits and Goals 14**
- Tariff Collections 16**
 - 2021 Cost Reconciliation and Impact on 2023 Program Budget 17
- Regulatory Proceedings 17**
- Energy Efficiency Rule Reporting Requirements 17**
 - Documentation of Program Expenditures 17
 - Self-Direct Program Participation and Evaluation 21
 - Estimated Water and CO2 Savings 21
- Independent Measurement and Verification Report 21**
 - Background and Purpose 21**
 - Summary of Findings and PNM Comments 21**
 - Key Points 22
 - Commercial Comprehensive 22
 - Residential Comprehensive 23
 - New Home Construction 23
 - Energy Smart (Low Income) 23
 - Peak Saver 23
 - Power Saver 24
- Appendix A – PNM Avoided Costs 24**

Introduction

- The 2021 Program was cost effective, as measured by the Utility Cost Test (“UCT”), with a UCT of 1.48 for the portfolio of programs.
- The total annual net savings after free rider and other adjustments were accounted for was 107.1 GWh at the customer meter.
- The two load management programs represent an average hourly capacity of approximately 44 MW.
- Total program expenses were about \$29.5 million.
- The average cost per kWh of lifetime energy savings from the energy efficiency programs, not including load management, was 2.05¢/kWh.

The PNM Energy Efficiency Program empowers individuals and businesses across PNM’s service area to save energy and money by installing measures and/or adopting practices that result in the reduction of electric consumption or demand curtailment within their homes and businesses. In 2020, and continuing in 2021, the COVID-19 pandemic forced adaptability and flexibility in how we interacted with our customers while still providing a positive customer experience. This innovation and malleability not only helped us in maintaining program offerings during these unprecedented circumstances, but also in meeting our targets towards achieving the 2025 EUEA savings goals. Any necessary modifications that occurred due to the pandemic will be described in the specific program sections throughout the report below.

Program Results Summary

PNM submits this annual report on the performance of the PNM Energy Efficiency and Load Management Program for calendar year 2021, (“2021 Program”). This annual report is based on the measurement and verification of PNM’s 2021, programs performed by Evergreen Economics (“Evergreen”). The Evaluation of the 2021 Public Service Company of New Mexico Energy Efficiency and Demand Response Programs (“M&V Report”) prepared by Evergreen is submitted as a separate document.

The programs evaluated in this annual report were approved by the New Mexico Public Regulation Commission (“NMPRC” or “Commission”) in Case No. 20-00087-UT. This report covers all costs incurred in the implementation of the programs and all customer participation in the programs from January 1, 2021, through December 31, 2021.

This is the fourteenth annual report on PNM’s Energy Efficiency Programs. Results are based upon independent measurement and verification.

Table 1 provides the definition of “Participants or Units” by program.

Table 1

Program	Participants	Units	Description
Residential Comprehensive	X	X	AC Units/Homes/Refrigerators
Residential Lighting/Retail Products		X	Light Bulbs/High Efficiency Refrigerator/Dishwasher/Washer/Dryer/etc.
Commercial Comprehensive	X	X	Apartments/Projects/Distributors
Easy Savings Kit		X	Kits Mailed to Homes
Energy Smart (MFA)	X		Multi-Family Buildings
New Home Construction	X		New Homes
PNM Home Works	X		Kits
Behavioral Comp.	X		Reports
Power Saver (LM)		X	A/C Units and Small Businesses
Peak Saver (LM)	X		Premises

Table 2 shows the total number of customer participants (or units), the annual energy and demand savings, the lifetime energy savings, and the total costs for each of the programs for calendar year 2021.

Table 2

Program	Participants or Units	Annual Savings (kWh)	Annual Savings (kW)	Lifetime Savings (kWh)	Total Program Costs
Residential Comp.	7,954	6,405,576	1,218	44,575,754	\$ 3,604,164
Residential Lighting/Retail Products	1,581,327	43,103,668	10,219	862,073,359	\$ 5,247,368
Commercial Comp.	556	47,727,255	7,016	505,908,910	\$ 10,666,099
Easy Savings	5,541	1,888,070	197	24,922,527	\$ 379,507
Energy Smart	234	377,717	61	6,100,136	\$ 252,195
New Home Const.	1,490	1,784,294	692	30,871,410	\$ 931,156
PNM Home Works	12,947	2,588,467	168	28,916,357	\$ 776,475
Behavioral Comp.	218,316	3,107,312	-	5,747,836	\$ 432,690
Power Saver (LM)	55,546	124,546	34,100	124,546	\$ 4,641,236
Peak Saver (LM)	157	73,001	17,509	73,001	\$ 2,537,651
Total	1,884,068	107,179,905	71,180	1,509,313,837	\$ 29,468,540

Program Information

This section highlights the successful strategies and accomplishments of the following programs in 2021.

- (1) Commercial Comprehensive
- (2) Residential Comprehensive
- (3) Residential Lighting
- (4) Energy Smart
- (5) PNM Home Works
- (6) New Home Construction
- (7) Easy Savings Kit
- (8) Power Saver load management
- (9) Peak Saver load management
- (10) Behavioral Comprehensive
- (11) Market Transformation
- (12) Self-Direct

Commercial Comprehensive

PNM contracted with DNV, Inc. to implement the Commercial Comprehensive energy efficiency program which is comprised of seven sub-programs. DNV implemented the New Construction, Retrofit Rebates, Building Tune-Up, Quick Saver small business, Distributor Discount programs and the Multifamily sub-programs in 2021. Personnel continued standard pandemic protocols and use of personal protective equipment (“PPE”) during 2021.

New Construction and **Retrofit Rebates** offer pre-set and custom incentives for installing qualifying equipment in new and existing buildings, and for implementing efficient designs in new buildings. Eligible equipment includes energy efficient lighting,

HVAC, refrigeration, food service equipment, motors and variable speed drives, window film and plug load controls. **Building Tune-Up** offers incentives for building owners and operators to improve whole-system building efficiency through retro-commissioning, performing advanced tune-ups of air conditioning systems, and to support building operator certification training. In the PNM **Distributor Discount** program, a participating distributor sells high-efficiency equipment from an approved product list to an eligible PNM customer; the customer receives an instant discount at the point of purchase, and PNM pays the rebate directly to the distributor.

In 2021, there were just under 300 customer projects in the New Construction, Retrofit Rebate, Building Tune-Up, and Distributor Discount programs. The projects completed at these customers' facilities paid customers approximately \$4 million in rebates and will save over 37 million kWh per year.

PNM **Quick Saver** is a direct-install program for small business customers who have an annual peak electric demand of 200 kW or less. It offers business customers pre-set incentives for installing qualifying lighting products and refrigeration in existing buildings. An important aspect of the program is ongoing training of participating contractors for continued and successful program implementation. For 2021, the Quick Saver program processed over \$1.1 million in incentives on 207 customer projects which will save approximately 6.8 million kWh per year across the PNM service area.

The **Multifamily** program is designed to meet the needs of the hard-to-reach multifamily customer segment by offering an attractive mix of low-cost direct install measures, such as lighting replacement, along with deeper savings measures, such as upgrades to cooling equipment, all in one package. The program completed 454 projects and paid about \$958,820 in rebates. Several of the projects completed in 2021 were projects that were delayed due to the COVID 19 pandemic in 2020.

Residential Comprehensive

Refrigerator Recycling

ARCA, Inc., the third-party contractor utilized for the Refrigerator Recycling program, operates a center in Albuquerque that disassembles and recycles all refrigerators and freezers collected through the program. The program recycled 5,728 units in 2021. ARCA technicians continued the adopted protocols, first implemented in 2020, to protect customers and staff as well as technician training on the proper use of PPE. For customers who preferred no contact with technicians in their homes, curbside pick-up was made available.

“Rose’s Southwest Papers, Inc. is committed to the sustainable advancement of our manufacturing operations. Our continuing relationship with PNM and the Business Energy Efficiency Program has allowed us to upgrade difficult to improve systems economically while accommodating our schedule. Our recent air compressor upgrade was made more certain with measured savings information. As a family-owned and operated minority business, we value the relationship we have with PNM and look forward to our future opportunities.”

– Diego Garcia, Rose’s Southwest Papers, Inc.

A new Retailer Recycling component was added in 2021 to the Refrigerator Recycling program. Through this offering, customers who purchase new refrigerators at participating appliance retailers can easily schedule a pickup of their old appliance at their home while visiting the retailer's location. This convenient one-stop-shop feature allows customers to also arrange for the removal of outdated, inefficient units at the point of sale of their new unit which offsets overall program costs by allowing the program implementer to collect multiple units at a single central location versus traveling across the PNM service area.

In addition, retailers also qualify for incentive payments for their partnership thereby encouraging other local businesses to participate in the program. PNM plans to continue this offering into 2022 with the goal of signing on additional participating retailers. The Refrigerator Recycling program as a whole achieved approximately 3.4 million in annual kWh savings in 2021.



"This partnership provides a new opportunity to support households most impacted by the effects of a changing climate, and their ability to access and benefit from energy efficiency upgrades."

-Tim Keller, Mayor Albuquerque

Home Energy Checkup, Low-Income Checkup

In the Home Energy Checkup program, a Home Energy Specialist visits a customer's home and completes a walk-through energy assessment and provides a comprehensive report which includes personalized recommendations based on the conducted assessment. The Energy Specialist installs a selection of direct installation ("DI") measures, including LEDs, efficient water measures, and advanced power strips without a co-pay. Wi-Fi smart thermostats are installed at the time of the energy assessment for a nominal co-pay in homes with refrigerated air conditioning. The Energy Specialist

also visually inspects and makes recommendations regarding existing windows and level of insulation in the home as well as the age and condition of the existing appliances and provides information about available rebates for early appliance replacement with new ENERGY STAR® qualified appliances. Rebates for installing high efficiency cooling equipment are also available for eligible participants with old inefficient cooling equipment.

All in-home Energy Specialists are bilingual and bilingual call center Customer Representatives or virtual Energy Specialists are available upon request to ensure that customers are easily able to make appointments and have their energy efficiency questions and concerns answered. Customers have the flexibility to self-schedule appointments via the internet as well.

Income-qualified participants receive the same walk-through assessment, installed DI measures, and a comprehensive assessment report as referenced in the above paragraph. Eligible participants may also qualify for a free ENERGY STAR® refrigerator replacement and free installation of a Wi-Fi smart thermostat for homes with refrigerated air conditioning. In collaboration with New Mexico Gas Company (NMGCO), the Native American Energy Efficiency Project (NAEEP) was able to complete 46 low-income Checkups on tribal lands.

In 2020, PNM collaborated with the third-party Measurement and Verification evaluator and the program implementer to design a virtual component to the Home Energy Checkup program. In 2021 PNM continued to offer customers a way to participate in this program virtually and minimize impacts due to the pandemic. The virtual offering includes rebate applications for appliances and/or cooling equipment, and customized DI measures mailed. Following the initial interaction, the customers receive a follow-up video phone call to review energy savings tips, address customer questions, and to verify that DI measures were installed. A total of 1,992 customers throughout PNM's service area received a Home Energy Checkup. 56% of the Home Energy Checkups were virtual.

Residential Cooling

In 2021, the Residential Cooling program was modified from a downstream mail-in rebate program to a midstream program offering discounted HVAC systems, heat pumps, heat pump water heaters, and smart thermostats at the distributor level. The program works with distributors across the PNM service area to offer discounts to contractors on high efficiency cooling equipment when the unit is purchased and installed in an active residential PNM customer's home. With the discount being offered by distributors, customers are no longer required to submit paperwork to receive the benefit. Rebates for evaporative cooling equipment are still available, however, they are offered through the Residential Retail Products Program. A/C tune-ups were added to the cooling program in 2021 as well.

Training for the Midstream program with distributors and contractors was completed both virtually and in-person ensuring adequate social distancing was properly maintained and PPE was utilized.

The newly modified midstream program did not perform as well as expected due to a number of factors exacerbated by the ongoing COVID-19 pandemic including: a delay in program launch due to unanticipated problems with the data tracking system build out to accommodate the new program design, minimal response to training and recruitment efforts due to time and resource constraints within the HVAC contractor and wholesaler



“This has been a beneficial program to help our contractors offer an affordable upgrade in their line-up of heating and cooling systems.” -- Brian Griego, General Manager, Sigler

community, equipment cost increases up to 15% or more, and low inventory of eligible equipment components due to ongoing supply chain issues. The program achieved savings of approximately 176,000 kWh in 2021. Recruitment efforts have been accelerated in 2022 to help in continuing to grow the program. There are 6 distributors currently participating in the program.

Residential Lighting

In 2021, the Residential Lighting program was expanded to become the Residential Retail Products program to continue incentivizing LED bulbs, in addition to, in-store discounts on 15 additional non-lighting measures such as advanced power strips, ceiling fans, and air purifiers to name a few. In addition to these newly added discounted items, the program also offers mail-in, online, and instant rebates on high efficiency home appliances and evaporative cooling equipment. A total of 175 retailers including large home improvement stores, warehouse clubs, discount retailers, drug stores, independent hardware, charity retailers, and dollar stores participated in the program throughout the PNM service area achieving a total of approximately 43.1 million in annual kWh savings and provided approximately \$3.6 million in total incentives.

Each participating retailer displayed point-of-purchase (“POP”) materials describing the benefits of LEDs, in addition to the newly expanded non-lighting product list, and implemented other mass marketing strategies to engage customers. Retailer training was completed in person by field representatives in 2021 while ensuring adequate social distancing was properly maintained and PPE was utilized. Field representatives visited participating retailers on either a bi-weekly or monthly basis depending on the retailer’s sales volume. Field representatives visited stores a total number of 2,123 times in 2021.

Home Works

The PNM Home Works program provides energy efficiency education and energy saving kits to fifth graders and to high school students through the Energy Innovation program. Due to the continued COVID-19 pandemic restrictions in spring of 2021, the Home Works and Energy Innovation programs were delivered through an Energy Champion e-learning course, 100% virtual presentations, and a Kahoot game with a primary focus on energy efficiency, renewable and non-renewable natural resources, and how electricity is created and delivered into homes and businesses with a special emphasis on sustainability and the unique energy usage footprint of a high school-aged student in the home.

Through kit “pick-up only” distribution at schools, each fifth grade and high school student safely received a sealed customized PNM kit of energy efficiency devices to install at home which includes easy-to-install water and lighting measures and a written guide to assist students and parents with installation of the efficient technologies while also learning about additional ways to reduce energy waste in the home. The high school kit also contains a tier-two advanced power strip. Participating teachers have the opportunity to receive a mini-grant to use in their classrooms to help maximize the number of surveys returned from students and to confirm students installed the kits at home. The value of the mini-grant is based on student participation levels.

For fall 2021, in-person presentations were conducted at two-thirds of the registered schools in both the Home Works and Energy Innovation programs. Schools that had virtual programs followed the above procedures and schools with in-person presentation held multiple small class presentations to

“I have worked with PNM for the last 4 years at my school. The students and I love the presentations. Not only are they great at keeping the students interested and providing topics of discussion and learning in class. The resources provided in the home kits are always such a help for our students. We greatly appreciate the time and effort put into the whole PNM program.” – Tenille Leflar, 5th Grade Teacher at Manzano Mesa Elementary School



accommodate social distance precautions. Teachers received kit materials and student guides for device installations and accessed the e-learning curriculum as well.

The program provided 12,947 kits to 153 schools throughout the PNM service area during the 2021 spring and fall semesters. 91% of elementary schools are located in the central and north central region of the PNM service area, while 9% are located in regional areas including Ruidoso, Deming and Silver City. Cobre High School is located in the southern region of the state, while the remaining 23 participating high schools are located in the central and north central portions of the state. The program achieved approximately 2.5 million in annual kWh savings in 2021.

New Home Construction

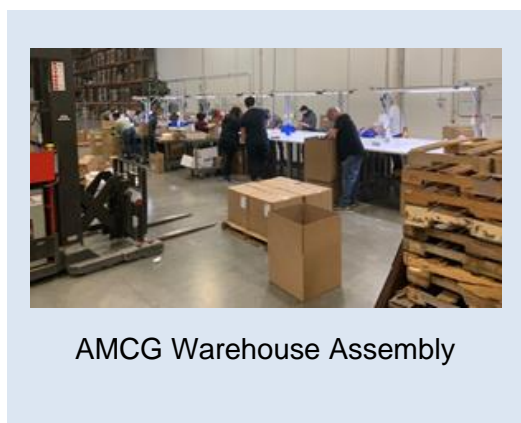
This program incentivizes home builders to exceed the level of energy efficiency required by the applicable building code. The program offers participants incentives for building new, highly efficient, single-family residential homes through either a prescriptive or a performance path. Under the prescriptive path, home builders receive rebates for specific energy efficient technologies, whereas under the performance path home builders can choose to receive rebates for overall home performance upon verification by credentialed home energy raters. The program provided incentives for 1,490 homes in 2021, 478 of which were prescriptive homes and 999 of which were performance homes. A total of 31 builders participated in the program in 2021, including 18 performance builders, nine prescriptive builders, and three low-income performance builders. The COVID-19 pandemic continues to cause supply chain delays, as well as increased building costs and delayed home completion time.

Low-Income Focused Programs

In 2021, the portfolio as a whole expended over 8% of the budget in low-income focused program offerings throughout our service area. This includes the additional \$424,452 specifically allocated for additional low-income programs as ordered in Case 20-00087-UT.

Easy Savings Kit

In 2021, a custom pick-a-kit portal offered low-income PNM customers the choice to customize an energy kit from a list of pre-selected DI measures that include various specialty LEDs, advanced power strip and other energy saving items. If the customer does not want to customize their own energy saving kit offerings, they may choose the option of a traditional pre-made energy kit that has a standardized mix of DI measures from those listed above. The primary channels for recruiting customers are direct mail or email campaigns. In 2021, 51% of participants received a kit by choosing to customize their own kit through the pick-a-kit-portal. In 2022, the measure mix will be enhanced to include outlet gaskets, weather stripping as well as a door sweep. As the market changes, the measure mix will continue to be evaluated for cost effectiveness.



AMCG Warehouse Assembly

In 2021, PNM was unable to partner with agencies across the service area due to the pandemic and agency staffing shortages. PNM will continue to work with agencies to retain continued awareness of the PNM Easy Savings Kit program and to encourage agencies to provide information and links on their websites as applicable.

Energy Smart

PNM is contracted with the New Mexico Mortgage Finance Authority (“MFA”) to install LEDs and replace inefficient refrigerators. Additional weatherization efficiency measures such as attic insulation, air and duct sealing, and programmable thermostats are also offered through the program to help income-qualified customers save money and energy in their homes. In 2021, MFA and its subcontractors leveraged PNM and federal funding, while adhering to proper safety COVID-19 protocols, and provided services to 234 income-qualified homes which included replacing 125 old and inefficient refrigerators with new ENERGY STAR® -qualified refrigerators at no cost to the customer.

Behavioral Comprehensive

Commercial Strategic Energy Management (SEM) Program

This program targets commercial and industrial customer classes by focusing on business practice change from senior management through employee staff to positively affect organizational culture in reducing energy waste and improving energy intensity. The SEM approach emphasizes the importance of equipping and enabling plant management and staff to impact energy consumption through behavioral and operational change and structured planning of facility upgrades and process improvements.

Beginning in 2021, the SEM program implementer, Strategic Energy Group (SEG), began working in conjunction with the PNM Strategic Account Management team to contact a list of customers whose annual electric usage exceeds 4 GWh as the minimum threshold to participate. In addition to working with the Account Management team, other recruitment strategies were put into place including multiple SEM overview webinars both real-time and recorded, email campaigns, and virtual lunch and learn meetings. In total, there are currently five participants in the SEM program from the healthcare, education, and governmental customer segments with other prospective pending participants being engaged.

While only a small number of customers were able to participate in 2021, other customers could not participate due to issues stemming from COVID-19, lack of available resources, and prior recent participation in similar energy management programs. By nature, a behavioral-based program sees customers realizing savings slowly over the course of a multi-year implementation process, however, the program achieved 1.3 GWh in the 2021 program year. Although this program was not included in the set of programs evaluated in 2021, it will be evaluated in the 2022 or 2023 program year.

Residential Home Energy Report Program

This behavior-based program offering utilizes more digital versus the historical paper only delivery method which reduces paper waste and also offers a broader sample of participants personalized tips and efficiency rebate recommendations through a phone app, website and/or emailed report. Participants have the capability to fill in any gaps about their homes on a pre-populated online survey, view energy efficiency tips and other program offerings and discover which high level end-use categories specific to their homes, such as cooling, heating and “always on” equipment are consuming the most energy.

This program made its debut in summer 2021 to over 200,000 residential customers within PNM’s service area. However, lower residential annual consumption averages and higher than expected attrition rates due to customer move in/move outs contributed to a decrease in energy savings achieved. A digital expansion wave was launched in December to over 22,000 customers to counteract the rising attrition rates. Over 1.7 million e-mails were sent in 2021 with a high delivery rate of 98%, and healthy open and click rates of 35% and 7% respectively. Almost 88,000 paper reports were sent to selected customers who did not have e-mail addresses on record.

This program has been very well received by participants with an average e-mail like rate of 84% and is in the top three of the most preferred means to learn about customer-specific energy consumption. This program achieved over 1.7 million in kWh savings for the 2021 program year with new engagement strategies in place to encourage even more behavior-based energy savings in 2022. Although this program was not included in the set of programs evaluated in 2021, it will be evaluated in the 2022 or 2023 program year.

Market Transformation

The goal of the Market Transformation (“MT”) strategy increases awareness of energy efficiency to induce behavioral changes that result in the adoption of energy efficient measures. In 2021, MT strategy continued to focus on outreach across the PNM service area to help customers better understand how they use energy and how to make better-informed decisions on ways they can use energy more efficiently. This outreach took a variety of forms, including social media outreach and promotional campaigns highlighting the benefits of energy efficiency.

Power Saver and Peak Saver Load Management

Peak Saver and Power Saver are the PNM load management programs. PNM customers with annual peak demand of 50 kW or greater can participate in Peak Saver and customers with annual peak demand of less than 50 kW, including residential customers, can participate in Power Saver. The load management programs were successfully utilized to offset the need for peaking resources during the summer of 2021. PNM dispatched the load management resource two times for a total of about 8 hours. The peak 15-minute load curtailment amount was 61 MW. Table 3 shows the times and durations of the load curtailment events in 2021. Generac Grid Services acquired Enbala in 2021 and implements the Peak Saver program on behalf of PNM.

Table 3

Date	Start Time (MDT)	End Time (MDT)	Duration (Hr)
6/15/2021	3:00 PM	7:00 PM	4
8/9/2021	2:00 PM	6:00 PM	4

On October 28, 2020, the NMPRC issued a final order in Case No. 20-00087-UT, PNM's energy efficiency program application for 2021, 2022 and 2023, which directed Evergreen Economics, as independent program evaluator for PNM's energy efficiency and load management ("EE/LM") programs, to do the following:

- In PNM's future M&V reports, the independent evaluator shall verify that load reductions from deployment of PNM's LM Programs avoided or offset the need for or use of additional peaking units or power purchases or shifted demand from peak to off peak period.

Evergreen addressed these points in the Load Management as a Resource Section of the M&V Report. Evergreen concluded that "in 2021, the LM Programs served a capacity resource that avoided the need for additional supply-side peaking capacity."

Program Benefits and Goals

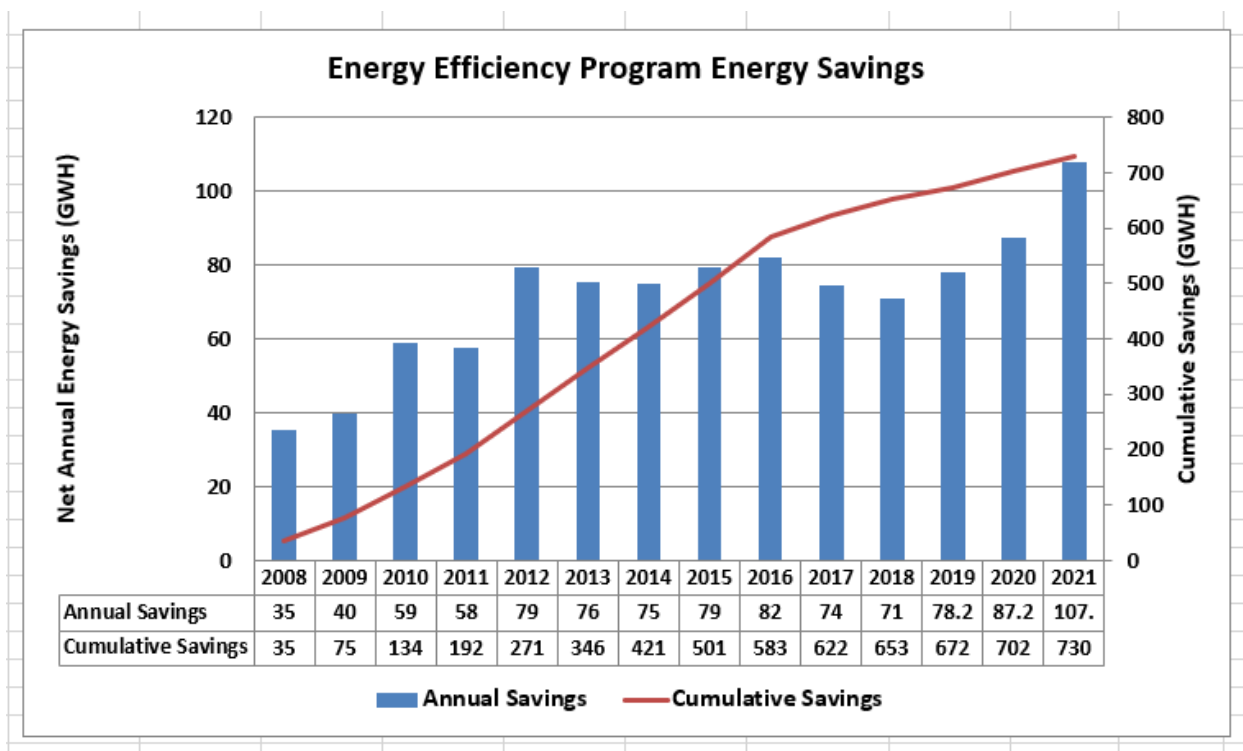
The 2021 Program benefitted the PNM system, customers in all customer classes, the environment, and the New Mexico economy.

The Efficient Use of Energy Act ("EUEA") required that PNM achieve cumulative savings of 411 GWh by 2014, equal to five percent (5%) of PNM's retail sales in 2005, and 658 GWh by 2020, equal to eight percent (8%) of 2005 retail sales. PNM's cumulative savings of 421 GWh through 2014 exceeded the 2014 savings requirement specified in the EUEA. PNM's cumulative savings of 702 GWh exceeded the 2020 savings target and represents approximately 8.6% of 2005 retail sales. The latest amendment to the EUEA requires that PNM achieve energy efficiency savings of 5 percent of 2020 retail sales. When PNM filed its application for approval of its 2021 through 2023 EE&LM Program Plan, this target was estimated to be approximately 403 GWh. Based on actual 2020 retail sales, PNM programs will have to achieve 395 GWh or, on average, 79 GWh of annual savings in years 2021 through 2025.

Figure 1 shows the annual incremental savings on the left axis and annual cumulative savings achieved through 2021 on the right axis.

The energy efficiency measures installed by PNM customers participating 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, 2020 and 2025, the average effective useful life (“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 2021 Program is fourteen (14.08) years. The average portfolio EUL has historically averaged 10 years. The increase in EUL can mainly be attributed to the extension of the existing EISA I standards. The EISA II standard was anticipated in future years, but that effective date has been delayed, and is unknown at this time. The annual savings from 2008 through 2012 no longer contribute to the cumulative savings since the average ten-year life for those savings has ended. The cumulative savings for 2021 in Figure 1 are the sum of all annual savings beginning in 2013.

Figure 1



The 2021 program provided about \$12 million in rebates and helped a wide range of customers with direct incentives that offset the cost of energy efficiency improvements and lowered their electric bills. Highlights include:

- 5,728 inefficient refrigerators and freezers were removed from the market.
- Over 1.5 million products including lighting and non-lighting measures were discounted through the Residential Retail Products program.
- More than 12,000 low-income customers benefited from the five programs that serve low-income customers.

- Over 550 commercial customer projects, including over 200 small commercial projects, were completed in the business energy efficiency programs.
- 37 common area projects with a combined 5,174 units were renovated with high-efficiency equipment.

Approximately 56,000 residential and business customers participated in the demand response programs. The 2021 Energy Efficiency Program also had a significant impact on the New Mexico economy. Customer incentives are designed to pay between 25 and 75 percent of the incremental cost of an efficiency improvement. Using a multiplier factor of two, the economic impact of the customer incentives would be about \$25 million dollars. The 2021 Program also had a significant impact on local employment. Most of the PNM programs are implemented by third-party contractors who employ local staff. The 2021 third-party program implementers directly supported approximately 49 local employees. In addition, much of the \$12.3 million in incentives paid to customers supported additional employment by local companies and trade allies that provided the energy efficiency improvements.

In addition, the energy savings from the 2021 Program will result in a reduction in water consumption and CO₂ emissions. Estimated water savings and reductions of CO₂ are shown in Table 10 below.

The PNM Energy Efficiency Program, now in its fourteenth year, was a key resource in PNM's 2020 Integrated Resource Plan ("2020 IRP"). The 2020 IRP evaluated many different portfolio options that could be implemented to meet expected growth in the demand for electricity for a planning period of 20 years. Energy efficiency and load management programs are found to be cost-competitive alternatives when compared to meeting system needs with traditional supply-side resources. PNM identified its most cost-effective portfolio to meet the objective of the NMPRC IRP rule which is to "identify the most cost effective portfolio of resources to supply the energy needs of customers."¹ The IRP rule further provides that "For resources whose costs and service quality are equivalent, the utility should prefer resources that minimize environmental impacts."² PNM's IRP included the impacts of the 2020 Program Plan and projected growth of programs that allow PNM to achieve the spending requirements and energy saving goals specified in the EUEA.

Tariff Collections

The costs of implementing the 2021 Program are recovered through the Energy Efficiency Rate Rider No. 16 ("Rider") on customer bills. The Rider for 2021 included a program cost rate element that was assessed monthly as a percentage (3.405%) of the monthly bill charge. A profit incentive rate element was also assessed monthly as a percentage including a 2021 base element (0.235%) and a 2020 reconciliation element (0.139%).

In 2021, PNM collected \$31,031,487 in program funding through the 3.405% Rider No. 16 rate element. In 2019, PNM's plan year Rider No. 16 collections exceeded expenditures by \$424,452 resulting in an underage added to the amount available for

¹ 17.7.3.6 NMAC.

² *Id.*

program expenditures in 2021 pursuant to 17.7.2.8(E) NMAC. Accordingly, the amount of the rider collections available for program funding in 2021 was \$31,455,939 (\$31,031,487 + \$424,452). PNM's actual expenditures in 2021 were \$29,468,540, resulting in an under-expended amount of \$1,987,399. Accounting for carrying charges on monthly balances in 2021 resulted in a net underage of \$2,002,249. The Final Order in Case No. 20-00087-UT authorized PNM to earn a Profit Incentive in 2021. PNM submitted the documentation for a tariff rider adjustment, including the program cost under-expenditure and profit incentive reconciliation, with supporting testimony, along with this annual report.

2021 Cost Reconciliation and Impact on 2023 Program Budget

In compliance with the Final Order, PNM will add the 2021 under-expended amount of \$2,002,249 to the approved 2023 program plan budget as approved in Case No. 20-00087-UT.

Regulatory Proceedings

On November 4, 2020, the Commission voted to renew the contract with Evergreen Economics to perform independent measurement and verification of New Mexico energy efficiency and load management programs for the 2021 and 2022 program years.

On April 15, 2021, PNM filed Advice Notice No. 578 to reconcile the collection of the 2020 program costs and profit incentive. Rider 16 was modified to reflect the profit incentive reconciliation, and the new rates went into effect on May 28, 2021.

Energy Efficiency Rule Reporting Requirements

The following section of the annual report provides detailed information on the performance of the 2021 Program including information required by the NMPRC Energy Efficiency Rule, Section 17.7.2.14 – Annual Report.

Documentation of Program Expenditures

All 2021 Program expenses including labor, materials, third-party expenses, and all other costs, are tracked through a unique set of accounts. Likewise, all revenue collected through the tariff rider is booked to a special regulatory asset account which is balanced against the expenses. These costs and revenues are kept separate from PNM rate-base accounting; therefore, there is no cross-subsidization and no impact on PNM's allowed rate of return. Costs specific to an individual program, such as customer incentives and third-party administration, are allocated directly to that program. Shared costs, such as internal administration, are allocated to each program in proportion to their direct costs.

Total calendar year expenditures for the 2021 Program were \$29,468,540. These expenditures include all expenses incurred by PNM to develop and implement the individual programs. The same total expenditure data was provided to Evergreen to be included in the M&V Report. Table 4 shows the allocation of costs to the various programs for calendar year 2021.

Table 4

Programs	Admin	M&V	Promotion	Incentives (Rebates)	Third-Party Costs	Market Transformation	Total Costs
Residential Comp.	\$ 138,019	\$ -	\$ 53,441	\$ 1,035,653	\$ 2,308,146	\$ 68,905	\$ 3,604,164
Residential Lighting/Retail Products	\$ 200,944	\$ -	\$ 77,806	\$ 3,626,290	\$ 1,242,008	\$ 100,320	\$ 5,247,368
Commercial Comp.	\$ 399,344	\$ 237,780	\$ 154,628	\$ 6,177,407	\$ 3,497,569	\$ 199,369	\$ 10,666,099
Easy Savings	\$ 13,093	\$ 37,595	\$ 5,070	\$ 223,693	\$ 93,520	\$ 6,537	\$ 379,507
Energy Smart	\$ 9,658	\$ -	\$ 3,739	\$ 210,104	\$ 23,872	\$ 4,821	\$ 252,195
New Home Const.	\$ 35,658	\$ -	\$ 13,807	\$ 527,775	\$ 336,114	\$ 17,802	\$ 931,156
PNM Home Works	\$ 29,121	\$ 16,021	\$ 11,276	\$ 457,244	\$ 248,275	\$ 14,538	\$ 776,475
Behavioral Comp.	\$ 16,570	\$ -	\$ 6,416	\$ -	\$ 401,432	\$ 8,272	\$ 432,690
Power Saver (LM)	\$ 176,693	\$ 27,155	\$ 68,416	\$ 31,477	\$ 4,249,283	\$ 88,212	\$ 4,641,236
Peak Saver (LM)	\$ 96,138	\$ 27,155	\$ 37,225	\$ -	\$ 2,329,138	\$ 47,996	\$ 2,537,651
Total	\$ 1,115,237	\$ 345,706	\$ 431,824	\$ 12,289,644	\$ 14,729,356	\$ 556,773	\$ 29,468,540

The total approved budget for 2021 was \$31,790,650 and the total actual expenses for the year were \$29,468,540; therefore, total spending was about 7% percent below the approved budget. Table 5 shows the budgeted amounts, the actual expenditures, and the variances for each program.

Table 5

Programs	Approved Budget	2021 Actual Costs	Variance (\$)
Residential Comp.	\$ 6,033,526	\$ 3,604,164	\$ (2,429,362)
Residential Lighting/Retail Products	\$ 3,886,163	\$ 5,247,368	\$ 1,361,205
Commercial Comp.	\$ 9,725,706	\$ 10,666,099	\$ 940,393
Easy Savings	\$ 819,437	\$ 379,507	\$ (439,929)
Energy Smart	\$ 354,884	\$ 252,195	\$ (102,689)
New Home Const.	\$ 578,243	\$ 931,156	\$ 352,913
PNM Home Works	\$ 721,999	\$ 776,475	\$ 54,476
Behavioral Comp.	\$ 1,840,184	\$ 432,690	\$ (1,407,494)
Power Saver (LM)	\$ 5,313,250	\$ 4,641,236	\$ (672,014)
Peak Saver (LM)	\$ 2,517,258	\$ 2,537,651	\$ 20,393
Total	\$ 31,790,650	\$ 29,468,540	\$ (2,322,110)

Estimated and Actual Participation and Savings

Table 6 presents estimated and actual customer participation (or units), annual energy savings and annual peak demand savings for each program. Estimated values represent the targets for calendar year 2021. Please note that all energy savings are reported as the savings at the customer meter.

Table 6

Program	Estimated Participants or Units	Actual Participants or Units	Estimated Savings (kWh)	Actual Savings (kWh)	Estimated Savings (kW)	Actual Savings (kW)
Residential Comp.	10,602	7,954	10,686,466	6,405,576	4,030	1,218
Residential Lighting/Retail Products	1,008,890	1,581,327	32,623,280	43,103,668	4,309	10,219
Commercial Comp.	676	556	42,626,996	47,727,256	8,324	7,016
Easy Savings	7,200	5,541	2,470,000	1,888,070	360	197
Energy Smart	238	234	405,000	377,717	37	61
New Home Const.	1,100	1,490	758,625	1,784,294	272	692
PNM Home Works	12,850	12,947	1,928,200	2,588,467	124	168
Behavioral Comp.	329,179	218,316	22,589,734	3,107,312	2,724	-
Power Saver (LM)	-	55,546	2,020,000	124,546	52,000	34,100
Peak Saver (LM)	-	157	1,000,000	73,001	25,000	17,509
Total	1,370,735	1,884,068	117,108,301	107,179,905	97,179	71,180

Estimated and Actual Costs and Avoided Costs (Benefits)

Table 7 presents the net present value of estimated and actual monetary costs and benefits for each program. Estimated costs and benefits are those contained in the 2021 Program Plan, approved in Case No.20-00087-UT. The actual net present value of monetary benefits was determined by taking the discounted value of the annual avoided costs times the annual savings over the effective useful life of each program. Please see Appendix A for PNM avoided costs.

Table 7

Program	Estimated NPV of Monetary Costs	Actual NPV of Monetary Costs	Estimated NPV of Monetary Benefits	Actual NPV of Monetary Benefits
Residential Comp.	\$ 6,033,526	\$ 3,602,736	\$ 4,996,264	\$ 1,408,487
Residential Lighting/Retail Products	\$ 3,886,163	\$ 5,247,662	\$ 7,129,173	\$ 24,840,745
Commercial Comp.	\$ 9,725,706	\$ 10,666,682	\$ 11,841,188	\$ 13,124,040
Easy Savings	\$ 819,437	\$ 379,526	\$ 803,409	\$ 633,814
Energy Smart	\$ 354,884	\$ 252,209	\$ 143,676	\$ 182,617
New Home Const.	\$ 721,999	\$ 931,208	\$ 469,040	\$ 1,306,480
PNM Home Works	\$ 578,243	\$ 776,517	\$ 388,134	\$ 557,006
Behavioral Comp.	\$ 1,840,184	\$ 432,714	\$ 1,063,996	\$ 64,073
Power Saver (LM)	\$ 5,313,250	\$ 4,641,494	\$ 6,167,619	\$ 1,039,335
Peak Saver (LM)	\$ 2,517,258	\$ 2,537,792	\$ 2,965,201	\$ 538,836
Total	\$ 31,790,650	\$ 29,468,541	\$ 35,967,700	\$ 43,695,434

Cost Effectiveness Evaluation

Table 8 presents the Utility Cost Test (“UCT”) ratio for each program and for the total portfolio of programs as determined by the independent evaluator. The UCT ratio is the ratio of actual monetary benefits to monetary costs. The UCT of the total portfolio of programs as determined by the independent evaluator was 1.48.

Table 8

Program Name	Net UCT
Residential Comp.	0.39
Refrig. Recycl.	0.60
HEC - Mkt	0.29
HEC - LI	0.40
Cooling & Midstream	0.19
Residential Lighting/Retail Products	4.73
Commercial Comp.	1.23
Easy Savings	1.67
Energy Smart (MFA)	0.72
New Home Const.	1.40
Behavioral	0.15
Home Works	0.72
Power Saver (LM)	0.22
Peak Saver (LM)	0.21
Total	1.48

Table 9 reflects a separate UCT based on avoided costs that were filed and approved with the Commission and this UCT also relies on contract terms that defined payment terms and savings assumptions.

Table 9

	kWh	kW	Lifetime kWh	EUL	LI%	Total Cost	2021 UCT
Residential Comp.	6,405,576	1,217	44,575,803	7	31.1%	3,602,736	0.41
Refrig. Recycl.	3,423,924	805	16,835,569	5	0.0%	\$ 1,023,793	0.60
HEC - Mkt	1,294,717	135	11,587,720	9	0.0%	\$ 907,969	0.28
HEC - LI	1,510,590	204	13,519,783	9	100.0%	\$ 1,021,155	0.39
Cooling & Midstream	176,344	73	2,632,730	15	0.0%	\$ 649,819	0.19
Residential Lighting/Retail Products	43,103,668	10,219	862,073,359	20	0.0%	\$ 5,247,662	4.46
Commercial Comp.	47,727,255	7,016	505,908,899	11	3.9%	\$ 10,666,682	1.23
Easy Savings	1,888,070	197	24,922,519	13	100.0%	\$ 379,526	1.58
Energy Smart (MFA)	377,717	61	6,100,352	16	100.0%	\$ 252,209	0.70
New Home Const.	1,784,294	692	30,871,410	17	2.3%	\$ 931,208	1.37
Behavioral Comp.	3,107,312	-	5,747,836	2	20.1%	\$ 432,714	0.15
Home Works	2,588,467	168	28,916,357	11	40.0%	\$ 776,517	0.67
Power Saver (LM)	124,546	43,250	124,546	1	0.0%	\$ 4,641,494	1.11
Peak Saver (LM)	73,000	25,000	73,000	1	0.0%	\$ 2,537,792	1.17
Total	107,179,904	87,820	1,509,314,081			\$ 29,468,541	1.65

Self-Direct Program Participation and Evaluation

PNM received no Self-Direct applications in 2021.

Estimated Water and CO2 Savings

Table 10 shows the estimated carbon dioxide (“CO₂”) emission reductions and water savings associated with the PNM portfolio of programs. The annual avoided CO₂ emissions and water savings for the 2021 Program were determined by multiplying the PNM weighted-average emissions rate and water consumption by the annual and lifetime energy savings.

Table 10

Emission Impact	Avoided Electric Emissions Rate (Metric Tons/GWh)	Annual Avoided Emissions (Metric tons)	Lifetime Avoided Emissions (Metric tons)
CO ₂ Reduced	471	50,512	711,313
Water Impact	Water Consumption (gal/MWH)	Annual Water Saved (gal)	Lifetime Water Saved (gal)
Water Saved	260.0	27,866,775	392,421,598

Independent Measurement and Verification Report

PNM contracted with Evergreen Economics to conduct the independent evaluation of the 2021 Program. The M&V Report is submitted as a separate document along with this annual report. A summary of some of the more important findings and recommendations, along with comment from PNM, is provided below.

Background and Purpose

On November 2, 2020, the Commission renewed the selection of Evergreen Economics as the state-wide independent evaluator and approved the M&V budget and scope of work for a two-year term to conduct annual measurement and verification analysis for the 2021 program year. Evergreen conducted independent evaluation of the 2021 Program and their M&V Report is based on data from January 1, 2021 through December 31, 2021. PNM worked closely with Evergreen to provide the data necessary to complete the 2021 M&V Report. This included rebate processing and participant files, budget data by program and avoided-cost information.

Summary of Findings and PNM Comments

The total portfolio of programs was found to be cost effective. The results of the M&V analysis will be used to adjust technical assumptions made by PNM regarding program performance, unit savings and net-to-gross values. The M&V Report contains specific findings and recommendations which are summarized in the following section.

Key Points

The evaluator performed a project sampling of engineering desk reviews for Commercial Comprehensive, deemed savings review and student survey responses for Home Works, a deemed savings review for Easy Savings Kit (Easy Savings) a general population low-income web survey, and statistical models for Peak and Power Saver programs. The reviews resulted in high realized gross savings, particularly for kWh.

Due to several factors, savings adjustments were made to the Commercial Comprehensive programs:

- Incomplete project documentation where savings calculations did not match up with the PNM work papers.
- The Midstream sub-program savings calculations needed to be recalculated by the evaluation team due to inadequately documented calculations causing the largest change in savings.
 - There were still operating hour assumptions for lighting projects that required to be adjusted (with a focus on dusk-to-dawn assumptions).

Overall, participant surveys in the Commercial Comprehensive program resulted in high levels of satisfaction in 2021 from the already high levels observed in previous years.

A low-income household survey identified that opportunities continue to exist to achieve energy efficiency in the low-income segment, as well as opportunities to increase trust and protect customer privacy among low-income households. However, cost effectiveness continues to be a concern among our low-income portfolio of programs.

Commercial Comprehensive

The Commercial Comprehensive program consists of the following sub-programs; Quick Saver, Retrofit Rebates, New Construction, Midstream and Multifamily. The evaluation activities, which included surveys with Retrofit Rebate and Quick Saver participants as well as interviews with Multifamily and New Construction participants, noted that nearly all interviewees expressed high levels of satisfaction with the majority of participants reporting ratings of “very satisfied” for all eleven program components. The survey asked about PNM as an energy provider, the rebate program, time it took to receive the rebate, equipment and quality of installation, contractor interaction and quality of installation, and the overall value of program regarding the time and effort it required to participate. The evaluator specifically mentioned that Quick Saver participants were the most satisfied overall of all eleven program components.

To determine the mix of projects to evaluate, a statistically significant sample of projects, stratified by savings and measure type, was defined for detailed desk reviews. The evaluator requested the implementer to continue to improve upon the documentation whenever changes in the calculation steps are made to ensure that the documentation can be followed to reproduce the reported savings estimates. Documentation including all project documents, NM Technical Reference Manual sources, and work papers are provided, but there is not always a clear path on how the calculations are arrived at. PNM

is working with the implementer to include standardization of processes, calculation steps to facilitate their desk reviews and to establish methodologies for custom calculations and the necessary documentation. For each sub-program, the evaluator determined an Engineering Adjustment Factor (“EAF”) by dividing the verified savings by the reported savings value. On average, an EAF of 1.06 was determined for kWh savings and an EAF of 0.93 was determined for kW savings.

Residential Comprehensive

The Prescriptive path under the Residential Comprehensive program is made up of three sub-programs: Refrigerator Recycling, Home Energy Checkup (including a low-income component), and Residential Midstream Cooling. Home Energy Checkup includes a walk-through energy assessment and installation of a selection of DI measures and rebates for energy efficient appliances as well as a newly offered virtual home visit. The evaluator was able to evaluate the Residential Comprehensive program using a deemed savings approach and participant surveys. The participant survey was also used as a process evaluation tool that assessed how well the programs operate.

New Home Construction

The New Home Construction program offers two participation paths (including a new low-income component in 2021): The Performance path measures overall home performance and the Prescriptive path offers incentives for specific energy efficient technologies. The evaluation of this program was conducted through desk review for Performance projects and a deemed savings review for Prescriptive measures. As part of the net impact analysis, free ridership was estimated by conducting builder interviews.

Energy Smart (Low Income)

In the PNM service area, the Energy Smart program provides income qualified participants weatherization energy efficiency upgrades as well as prescriptive measures. The prescriptive measures include duct sealing, insulation, water heater pipe insulation, low-flow showerheads, aerators and efficient lighting. A deemed savings review was conducted by the evaluator to evaluate this program.

Peak Saver

The Peak Saver program is a demand response program offered to non-residential customers with peak load contributions of at least 50 kW. The program compensates participants for reducing electric load upon dispatch during periods of high system load. Peak Saver was implemented by Generac Grid Services in 2021, who managed the enrollment, dispatch, and settlement with participating customers. During the summer 2021 demand response season, there were 157 participating facilities and two demand response events.

One-minute interval load data is used to calculate load impacts using a customer baseline (“CBL”) method per the contract between PNM and Generac Grid Services. A CBL is an estimate of what participant loads would have been absent the DR event dispatch. Load impacts are the difference between the CBL and the metered load during the event. The evaluator was able to replicate the calculations used for contract settlement. The peak impact as reported by the implementer results in an average event capacity of 41,420

kW. Evaluator-calculated performance resulted in an average performance of 17,509 kW. The difference is largely a result of the baseline methodology between the implementer and evaluator.

Power Saver

Power Saver is a direct load control program offered to residential, small commercial (< 50 kW), and medium commercial (50 kW – 150 kW) Public Service Company of New Mexico (PNM) customers. To facilitate load control, participants must have a device attached to the exterior of their air conditioning unit. This “paging” device is capable of receiving a radio signal that will activate a control sequence that cycles the unit’s compressor for an interval of time (usually half the time as normal) to reduce peak demand in the summer. Residential and small commercial participants receive an annual \$25 incentive for their participation. Medium commercial participants receive an annual incentive of \$9 per ton of refrigerated air conditioning. A residential smart thermostat component was added to the program in 2018 and a residential bring your own thermostat (“BYOT”) program was added in 2020 and continued in 2021. For these components, load curtailment is achieved via communication with the Wi-Fi-enabled thermostat.

There were two Power Saver events during the summer 2021 demand response season. All events used a 50% cycling strategy where curtailment is based on the runtime in the previous hour. The peak contract capacity as determined by the maximum 15-minute capacity during an event was 43,250 kW. The realized gross energy savings was 124,300 kWh and the realized gross demand savings (calculated as an hourly average reduction) was 29,890 kW.

Appendix A – PNM Avoided Costs

The following table provides the avoided energy, demand and carbon costs for calendar year 2021. These costs were used in the PNM cost-effectiveness model and by Evergreen in its program evaluation. These are the avoided costs included in PNM’s most recently approved energy efficiency plan, Case No. 20-00087-UT.

Avoided Energy and Capacity Costs EE and DR	EE Energy Capacity (\$/kWyr)	EE Avoided T & D (\$/kWyr)	EE Total Capacity MW (\$/kW-yr)	EE Energy (incl CO ₂) (\$/kWh)	DR MW (\$/kW-yr)	Avoided Energy Cost DR (\$/kWh)
2021	\$0.00	\$5.00	\$5.00	\$0.009	\$30.42	\$0.00
2022	\$159.13	\$5.08	\$164.20	\$0.012	\$139.59	\$0.00
2023	\$148.55	\$5.15	\$153.70	\$0.014	\$119.80	\$0.00
2024	\$141.06	\$5.23	\$146.29	\$0.013	\$135.53	\$0.00
2025	\$149.81	\$5.31	\$155.11	\$0.015	\$150.01	\$0.00
2026	\$155.65	\$5.39	\$161.04	\$0.017	\$129.07	\$0.00
2027	\$138.36	\$5.47	\$143.83	\$0.016	\$125.84	\$0.00
2028	\$134.22	\$5.55	\$139.77	\$0.019	\$125.84	\$0.00
2029	\$139.38	\$5.63	\$145.02	\$0.020	\$125.84	\$0.00
2030	\$129.56	\$5.72	\$135.28	\$0.019	\$113.44	\$0.00
2031	\$121.17	\$5.80	\$126.97	\$0.021	\$101.00	\$0.00
2032	\$110.58	\$5.89	\$116.47	\$0.029	\$80.64	\$0.00
2033	\$133.42	\$5.98	\$139.39	\$0.026	\$141.75	\$0.00
2034	\$130.84	\$6.07	\$136.91	\$0.028	\$141.75	\$0.00
2035	\$128.52	\$6.16	\$134.68	\$0.029	\$141.75	\$0.00
2036	\$126.14	\$6.25	\$132.40	\$0.030	\$140.99	\$0.00
2037	\$118.09	\$6.34	\$124.43	\$0.028	\$91.05	\$0.00
2038	\$136.97	\$6.44	\$143.41	\$0.030	\$160.06	\$0.00
2039	\$129.03	\$6.54	\$135.57	\$0.030	\$65.70	\$0.00

