BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF NEW MEXICO FOR APPROVAL OF ELECTRIC ENERGY EFFICIENCY PROGRAMS AND LOAD MANAGEMENT PROGRAMS AND PROGRAM COST TARIFF RIDERS PURSUANT TO THE NEW MEXICO PUBLIC UTILITY AND EFFICIENT USE OF ENERGY ACTS Case No. 07-______-UT

PUBLIC SERVICE COMPANY OF NEW MEXICO, Applicant.

DIRECT TESTIMONY AND EXHIBITS

OF

GERARD T. ORTIZ

January 31, 2007
Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.

A. My name is Gerard T. Ortiz. I am the Director of Market Services for Public Service Company of New Mexico (“PNM” or “Company”). My business address is Public Service Company of New Mexico, Alvarado Square – MS-0506, Albuquerque, NM 87158.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL QUALIFICATIONS.

A. I graduated from New Mexico State University in 1981 with a Bachelor of Science degree in Electrical Engineering. I obtained a Master of Business Administration degree from the Robert O. Anderson Graduate School of Management at the University of New Mexico in 1988. I am a Registered Professional Engineer in the State of New Mexico. Since 1981 I have been employed by PNM, and have held a variety of engineering, supervisory, and managerial positions in Distribution Engineering, Electric Marketing and Business Planning in addition to my current assignment. In my present position, I oversee PNM’s energy efficiency efforts, account management, load research, market research, and program development.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony will:
i. Provide a summary of the electric efficiency and load management programs being proposed and the approvals PNM is seeking in this case.

ii. Describe these programs PNM more fully, including program costs, forecasted customer participation rates, Total Resource Cost test (“TRC”) calculations for the programs, and other details associated with program provision.

iii. Describe the public advisory process PNM implemented to develop these programs.

iv. Describe the programs’ performance measures.

v. Provide an overview of the measurement and verification process for the proposed programs.

vi. Introduce PNM’s other witnesses in this case.

Q. HAVE YOU PREPARED ANY EXHIBITS?

A. Yes. PNM Exhibits GTO-1 through GTO-3 are attached to my testimony. These exhibits are:

PNM Exhibit GTO-1

2007 Electric Energy Efficiency Program Plan

PNM Exhibit GTO-2

2007-2016 PNM Load Forecast

PNM Exhibit GTO-3

Filing Requirements for Program Approval Cross Table
Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE NEW MEXICO
PUBLIC REGULATION COMMISSION (“NMPRC” or “Commission”) OR
ITS PREDECESSOR AGENCY?

A. Yes, I have.

NMPUC Case No. 2782 – City of Albuquerque Pilot/Load Aggregation Program

NMPRC Case No. 3137 – Transition Plan

NMPRC Case No. 03-00101-UT – Voluntary Renewable Energy Tariff

NMPRC Case No. 03-00352-UT – Rio Rancho 2003 Underground Rider

NMPRC Case No. 05-00261-UT – Gas Energy Efficiency Program

NMPRC Case No. 05-00275-UT – Afton CCN Application

NMPRC Case No. 05-00418-UT – Rio Rancho 2005 Underground Project Rider

NMPRC Case No. 05-00443-UT – PNM’s Fiber Optic Pilot Program

NMPRC Case No. 06-00095-UT – Unser Road Widening Underground Rider

NMPRC Case No. 06-00302-UT – Rio Rancho 2006 Underground Project Rider

I. OVERVIEW

Q. PLEASE PROVIDE AN OVERVIEW OF PNM’S APPLICATION IN THIS
CASE?
A. PNM is proposing a set of electric energy efficiency and load management programs targeting both residential and commercial customers. This filing is being made consistent with the Efficient Use of Energy Act, NMSA 1978 §62-17-1 et. seq, (“Act”), the Energy Efficiency Rule, 17.7.2 NMAC, (“Rule”), and the approved Stipulation in NMPRC Case No. 05-00275-UT.

Q. WHAT ARE PNM’S OBJECTIVES IN OFFERING THESE PROGRAMS?

A.

PNM has two overall primary objectives in offering these programs. First, PNM hopes to increase customer awareness of energy efficiency and provide incentives that will result in the increased application of energy efficiency measures. Ideally, PNM’s programs will stimulate the market for energy efficient products.

Second, PNM believes there are significant system benefits associated with these programs since PNM hopes to significantly affect the energy and demand growth of its retail electric customers. This is increasingly important as PNM enters a period when it must bring new generation capacity on-line to meet the increasing needs of its customers. Additionally, PNM has program-specific objectives for each program. The program-specific objectives are described in the 2007 Electric Energy Efficiency and Load Management Programs Plan (“Program Plan”), PNM Exhibit GTO-1.

Q. WHAT APPROVALS IS PNM SEEKING IN THIS CASE?
A. PNM is seeking approval to offer the proposed programs to PNM retail customers in New Mexico, including customers receiving service under certain Public Service Company of New Mexico TNMP Services (“TNMP Services”) rate schedules. In addition, PNM is seeking approval of rate riders to recover the costs associated with proposed programs. PNM requests the Commission to consider this application as expeditiously as possible so that PNM may implement, and its customers may begin to realize the benefits of, the programs approved by the Commission as soon as possible.

Q. WHAT ARE THE SIGNIFICANT SYSTEM BENEFITS OF THESE PROGRAMS?

A. As I mentioned earlier, PNM is entering a period when it must either bring new generation capacity on-line or enter into contracts for such capacity. PNM Exhibit GTO-2 shows the projected energy and capacity needs for the period 2007 through 2016. The projected peak load in 2016 is 2132 MW. PNM’s current generation portfolio, including the Afton combined cycle facility, consists of 1966 MW of capacity. PNM clearly needs additional supply resources throughout this 10-year period, and these resources will likely exert upward pressure on the prices that PNM customers pay for electricity. All of PNM’s customers will benefit to the extent that PNM can successfully offset some of that growth in supply-side resources and avoid the associated cost through the provision of these programs.
Q. WHICH CUSTOMERS ARE ELIGIBLE TO PARTICIPATE IN THESE PROGRAMS?

A. Generally speaking, all residential, and most business and industrial customers in PNM’s service territory will be eligible to participate in one or more of the proposed programs. This will include former customers of TNMP in New Mexico. Specifically, customers receiving service under PNM’s Residential Service 1A & 1B, Small Power Service 2A & 2B, General Power Service 3B, Large Power Service 4B, Large Service for Public Universities 15B, Large Service for Manufacturing 17B, Special Contract Service for Large Customers 23, and Large Service for Manufacturing - Distribution Level 30B; and TNMP Services’ Residential Service 1, General Service 2, Large General Service 3, School Service 5 and Municipal Power Service 12.

Q. WHY IS PNM PROPOSING TO MAKE THESE PROGRAMS AVAILABLE TO FORMER TNMP CUSTOMERS IN NEW MEXICO?

A. There is clearly benefit to making energy efficiency and load management measures available to all of PNM’s retail customers given PNM’s projected generation shortfall. Further, the Act finds that energy efficiency and load management are cost effective resources that are an essential component of a balanced utility portfolio. Finally, effective January 1, 2007, PNM integrated the New Mexico operations of the acquired TNMP service territories into PNM.
Therefore, PNM decided that the programs proposed in this application should be made available to TNMP Services customers, rather than make a separate application for these customers.

II. PROGRAM DESCRIPTIONS

Q. WHAT ENERGY EFFICIENCY AND LOAD MANAGEMENT PROGRAMS ARE BEING PROPOSED BY PNM IN THIS CASE?

A. PNM is proposing six residential programs and three commercial programs. The residential programs include a refrigerator recycling program, a compact fluorescent lighting (“CFL”) program, an indirect evaporative cooling program, an ENERGY STAR® Homes program, an energy savers direct install kit, and a refrigerated air conditioning load management program. The commercial programs consist of an efficient lighting program, a commercial indirect cooling program, and a commercial load management program.

Q. PLEASE DESCRIBE EACH OF THESE PROGRAMS.

A. These programs are described in detail in PNM Exhibit GTO-1. A brief description of each program is provided below:

Residential
(1) The Refrigerator-Recycling program is designed to encourage early retirement and recycling of old refrigerators or unnecessary second refrigerators.
(2) The Residential Lighting program will provide incentives for purchasing CFLs. Lighting is the single largest area of energy efficiency potential in PNM’s service territory.

(3) The Residential Indirect Cooling program provides an incentive to install single inlet evaporative coolers with an advanced indirect cooling module in place of refrigerated air conditioning. Indirect cooling improves the cooling performance of evaporative coolers and offers an alternative to refrigerated air.

(4) The ENERGY STAR® Homes program will provide residential builders with an incentive for homes built to the ENERGY STAR standards.

(5) The Energy Saver Kit Direct-Install program will install a bundle of efficiency measures free of charge for income-qualified customers (up to 200% of the federal poverty level). The New Mexico Mortgage Finance Authority (MFA) will administer this program.

(6) The Residential Load Management program is a demand side management (“DSM”) strategy whereby non-critical residential loads (refrigerated air conditioning units, pool pumps, etc.) are cycled on and off during summer peak times.

Commercial

(7) The Commercial Lighting program will provide incentives to replace existing lighting with CFLs, T8 fluorescent lamps and other energy efficient lighting and controls options.

(8) The Commercial Indirect Cooling Program provides an incentive for commercial customers to install single inlet evaporative coolers with an advanced indirect cooling module in place of refrigerated air conditioning.

(9) The Commercial Load Management program is a DSM strategy whereby tailored curtailment and load management strategies will be used to provide firm demand response capacity in the commercial and industrial segments.
Q. WHAT ADDITIONAL INFORMATION IS CONTAINED IN PNM’S PROGRAM PLAN?

A. The Program Plan, supplemented by PNM’s testimony and other exhibits, meets all of the evidentiary requirements for program approval contained in Section 9 of the Rule. In addition, the Program Plan contains further detail about the customer incentive for each program and the expected useful life of each measure, describes the targeted customer sub-segment for each measure, and provides details about implementation and administration of each program. Finally, the Program Plan provides more detailed information regarding promotion and performance measurement, including Measurement and Verification (“M&V”).

PNM Exhibit GTO-3 consists of a cross table that identifies the sections of the Program Plan or other parts of PNM’s application that address each requirement of the Rule.

Q. HOW DID PNM SELECT THESE PROGRAMS?

A. These programs were selected from an initial list contained in the Public Service New Mexico Electric Energy Efficiency Potential Study completed for PNM in September 2006 by Itron, Inc (“Potential Study”). This study contained a list of measures that have been cost-effective programs at other utilities across the country and relied on data obtained in an appliance saturation study performed by SRBI, Inc. for PNM in early 2006. Program selection was based on the criteria identified in the Energy Efficiency Rule. These criteria include cost-
effectiveness, the extent to which programs provide significant system benefits,
the extent to which the program offers potential for broad customer participation,
total estimated energy savings, ease of administration, overall portfolio
development considerations, and the performance risk of the technologies.
Additionally, consideration was given to programs that benefit the low-income
segment of PNM’s customers.

Q.  HOW WERE THE CRITERIA IN THE RULE SPECIFICALLY APPLIED
IN THE PROGRAM SELECTION PROCESS?

A.  Cost effectiveness, as measured by the TRC, was obviously the threshold test.
Beyond that, PNM tried to construct a set of programs that would have broad
application within eligible customer classes. Given the generation capacity
shortfall PNM is facing over the next several years, PNM placed a high priority
on the energy savings or dispatchable demand potential of alternate programs.
Dispatchable demand programs are those that will allow PNM to reduce
participating customers’ loads upon demand. As discussed by Mr. Rufo, the bulk
of achievable energy savings among residential customers is found in lighting.
The next highest opportunities are found in cooling and refrigeration. The largest
opportunity for demand savings among residential customers is found in cooling.
The vast majority of energy saving opportunities among commercial customers
are in lighting. The second highest opportunity for demand savings among
commercial customers is in cooling. Consequently, PNM is including measures
focused on lighting, refrigeration, and cooling in its initial electric efficiency application.

Q. WHY IS THE TRC THE THRESHOLD TEST?

A. Under the Act, the TRC is the benchmark that establishes cost effectiveness for energy efficiency measures. The TRC is designed to compare energy efficiency or load management measure’s benefits to its costs.

Q. WHAT IS THE TRC RATIO FOR EACH OF THE PROPOSED PROGRAMS BASED ON PNM’S ESTIMATED COSTS?

A. The TRC ratio for each program is provided below.

<table>
<thead>
<tr>
<th>Program</th>
<th>TRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerator Recycling</td>
<td>2.69</td>
</tr>
<tr>
<td>Residential lighting</td>
<td>1.60</td>
</tr>
<tr>
<td>Residential Indirect Cooling</td>
<td>2.09</td>
</tr>
<tr>
<td>ENERGY STAR Homes</td>
<td>1.48</td>
</tr>
<tr>
<td>Energy Saver Direct Install</td>
<td>1.25</td>
</tr>
<tr>
<td>Residential Load Management</td>
<td>1.29</td>
</tr>
<tr>
<td>Commercial Lighting</td>
<td>1.77</td>
</tr>
<tr>
<td>Commercial Indirect Cooling</td>
<td>1.11</td>
</tr>
<tr>
<td>Commercial load management</td>
<td>1.37</td>
</tr>
<tr>
<td><strong>Total of all programs</strong></td>
<td>1.39</td>
</tr>
</tbody>
</table>

Q. PLEASE EXPLAIN THE TRC CALCULATIONS.
A. The TRC is the ratio of the present value of savings associated with a given program to the present value of costs associated with that program. Any program that has a TRC equal to, or exceeding, 1.0 is cost-effective. Generally speaking, the program savings include avoided generation supply costs. The program costs include utility design and implementation costs and participant costs associated with the program. The estimated per unit energy and/or demand savings for each program are from the Potential Study. The relevant inputs for the TRC calculation for the proposed programs are shown in Sections II.G, VIII, XII and XIII in PNM Exhibit GTO-1.

Q. HOW MANY CUSTOMERS ARE EXPECTED TO PARTICIPATE IN THESE PROGRAMS?

A. The anticipated annual participation rate for the first full year for each program is included in the table below.

<table>
<thead>
<tr>
<th>Program</th>
<th>Number of Customers</th>
<th>Anticipated Annual Unit Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerator Recycling</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Residential Lighting</td>
<td>39,100 – 97,750</td>
<td>391,000</td>
</tr>
<tr>
<td>Residential Indirect Cooling</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>ENERGY STAR Homes</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Energy Saver Direct Install</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>Residential Load Management</td>
<td></td>
<td>7.5 MW</td>
</tr>
<tr>
<td>Commercial Lighting</td>
<td>375</td>
<td>75,000</td>
</tr>
<tr>
<td>Commercial Indirect Cooling</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Commercial Load Management</td>
<td></td>
<td>22.5 MW</td>
</tr>
</tbody>
</table>
Three year (for the efficiency programs) and 10 year (for the load management programs) participation projections are included in Section II of the Program Plan.

Q. WILL THE PROGRAMS BE COST-EFFECTIVE IF THE PROJECTED PARTICIPATION LEVELS ARE NOT REACHED?

A. Yes. The minimum participation levels necessary to achieve a TRC equal to 1.0, assuming the budgeted costs are fully incurred, are shown in the table below.

<table>
<thead>
<tr>
<th>Program</th>
<th>Minimum Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerator Recycling</td>
<td>240</td>
</tr>
<tr>
<td>Residential lighting</td>
<td>130,000</td>
</tr>
<tr>
<td>Residential Indirect Cooling</td>
<td>33</td>
</tr>
<tr>
<td>ENERGY STAR Homes</td>
<td>50</td>
</tr>
<tr>
<td>Energy Saver Direct Install</td>
<td>650</td>
</tr>
<tr>
<td>Residential Load Management</td>
<td>3 MW</td>
</tr>
<tr>
<td>Commercial Lighting</td>
<td>4,500</td>
</tr>
<tr>
<td>Commercial Indirect Cooling</td>
<td>45</td>
</tr>
<tr>
<td>Commercial Load Management</td>
<td>3.3 MW</td>
</tr>
</tbody>
</table>

Q. WHAT ARE THE PROGRAMS’ OBJECTIVES IN TERMS OF ANTICIPATED ANNUAL ELECTRIC ENERGY SAVINGS?

A. Assuming we achieve the annual participation levels shown above and the energy savings estimated in the Potential Study, the table below provides the annual electric energy savings by program, and in total.
<table>
<thead>
<tr>
<th>Program</th>
<th>Annual participation in units</th>
<th>Annual electric savings per unit installed (kWh)</th>
<th>Total annual energy savings per program (kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerator Recycling</td>
<td>10,000</td>
<td>663</td>
<td>6,169,495</td>
</tr>
<tr>
<td>Residential Lighting</td>
<td>391,000</td>
<td>48</td>
<td>12,818,828</td>
</tr>
<tr>
<td>Residential Indirect Cooling</td>
<td>100</td>
<td>1,292</td>
<td>129,200</td>
</tr>
<tr>
<td>ENERGY STAR Homes</td>
<td>400</td>
<td>1,483</td>
<td>415,240</td>
</tr>
<tr>
<td>Energy Saver Direct Install</td>
<td>1,500</td>
<td>575</td>
<td>862,200</td>
</tr>
<tr>
<td>Residential Load Management</td>
<td>7.5 MW</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Commercial Lighting</td>
<td>75,000</td>
<td>188</td>
<td>5,655,201</td>
</tr>
<tr>
<td>Commercial Indirect Cooling</td>
<td>50</td>
<td>1,938</td>
<td>96,900</td>
</tr>
<tr>
<td>Commercial Load Management</td>
<td>22.5 MW</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Total</td>
<td>N/A</td>
<td>N/A</td>
<td>26,147,064</td>
</tr>
</tbody>
</table>

Q. **HOW DID PNM DETERMINE PARTICIPATION RATES FOR EACH OF THESE PROGRAMS?**

A. PNM considered several factors in developing estimated participation rates. PNM first considered the participation potential identified in the Potential Study. PNM
also asked potential vendors responding to RFPs to estimate achievable participation for those programs which PNM plans to deliver through a third party. PNM also conducted secondary research to determine actual participation rates for other utilities offering electric energy efficiency programs, while taking into account past participant rates of similar, past PNM offers. We also factored in the cost of the measure to the participant.

Q. DOES PNM REGARD THESE PROJECTED PARTICIPATION TARGETS AS CAPS THAT WILL LIMIT PARTICIPATION IN THE PROGRAMS?

A. No. PNM believes these projected targets are reasonable estimations of what can be achieved in the first full year for each of these programs. PNM would welcome participation above these targets. Section II.F. of PNM Exhibit GTO-1 includes multiple year targets for each of these programs. As can be seen, PNM expects participation to grow as customer awareness of the program increases.

Q. HOW WILL THESE PROGRAMS BE DELIVERED?

A. That depends on the program. PNM intends to engage third parties to deliver the residential CFL program, the refrigerator programs, and the two load management programs on behalf of PNM. The Energy Saver Direct Install program will be administered through the New Mexico Mortgage Finance Authority (“MFA”). The ENERGY STAR Homes program will be implemented by PNM and
delivered through participating homebuilders. The indirect cooling program will be implemented by PNM and delivered through homebuilders and local cooling vendors and contractors. The commercial lighting program will be a rebate program implemented by PNM and marketed to commercial customers and electrical contractors.

Q. WHAT WILL BE THE RESPONSIBILITIES OF THE THIRD PARTIES HIRED TO ADMINISTER THE RESIDENTIAL CFL AND THE REFRIGERATOR PROGRAMS?

A. While PNM is ultimately responsible for all of these programs, these third parties will be responsible for providing the turnkey administration of these programs on PNM’s behalf. In the case of the CFL program, the third party will be responsible for developing and implementing marketing plans, dealing with lighting manufacturers and distributors, accounting for participation, and reporting results to PNM. The third party administering the refrigerator program will be responsible for developing and implementing marketing plans, arranging for pick-up of old refrigerators, ensuring old refrigerators are recycled, tracking participation, and reporting results to PNM. PNM will have approval authority over all marketing plans. Additional details about the contractors’ responsibilities are included in the Section VII of PNM Exhibit GTO-1.
Q. WHAT WILL BE THE RESPONSIBILITIES OF THE THIRD PARTIES HIRED TO ADMINISTER THE LOAD MANAGEMENT PROGRAMS?

A. These third parties will be responsible for developing and implementing all marketing plans, installation and maintenance of all equipment, tracking participation, and reporting results to PNM. PNM will have approval authority over all marketing plans. Additional details about the contractors’ responsibilities are included in the Section VII of PNM Exhibit GTO-1.

Q. HAS PNM SELECTED THE THIRD PARTY ADMINISTRATORS FOR THESE PROGRAMS?

A. Yes, although in some cases PNM is still in contract negotiations with the selected third parties.

Q. HOW DID PNM SELECT THE THIRD PARTY ADMINISTRATORS FOR PROGRAMS THAT ARE BEING CONTRACTED?

A. PNM developed and issued an RFP for those programs that will be administered by third parties. PNM compiled the list of potential respondents for the lighting and refrigerator programs by consulting with ESource, ENERGY STAR, and SWEEP, ESource is an industry-sponsored firm that conducts research in many utility customer-related areas. SWEEP is a well-known organization that specializes in energy efficiency and load management efforts in the western
United States. PNM evaluated the proposals based on the prospective vendor’s experience, completeness and quality of proposal, references, and cost.

Q. WHY IS PNM UTILIZING A THIRD PARTY TO IMPLEMENT SOME PROGRAMS?

A. There are several reasons. First and foremost, PNM’s energy efficiency group is comprised of a staff of four people. Administering all of these programs internally would require additional people, resulting in increased long-term costs and limiting PNM’s ability to match resources with market demands. Second, there are many firms that have considerable experience implementing efficiency programs. PNM believed the quickest way to grow participation in some of these programs was to take advantage of the experience existing in the market. Finally, some of the programs require considerable infrastructure to implement. An example is the system and contractor network that must be put in place for the refrigerator-recycling program. Rather than investing in building this infrastructure itself PNM believed it to be more efficient to hire others to take the risks associated with creating this infrastructure. This is also true of the two load management programs. The third parties will assume the responsibility to install the equipment, and make the required communications arrangements necessary to remotely control the loads.
Q. PLEASE DESCRIBE THE CONTRACT UNDER WHICH THE
REFRIGERATOR RECYCLING PROGRAM WILL BE ADMINISTERED.

A. While this contract has not yet been finalized, I can describe many of the most
important contract provisions. First the contract will only become effective upon
Commission approval of the program. The term will be three years. Should PNM
terminate the contract early, there will be a termination fee. We are estimating the
annual contract cost to be $1,350,000, assuming projected participation estimates
are achieved and based on the firm’s price proposal.

Q. PLEASE DESCRIBE THE CONTRACT UNDER WHICH THE
RESIDENTIAL CFL PROGRAM WILL BE ADMINISTERED.

A. While this contract has also not yet been finalized, I can describe many of the
most important contract provisions. First the contract will only become effective
upon Commission approval of the program. The term will be three years. Should
PNM terminate the contract early, there will be a termination fee. We are estimating the
annual contract cost to be $1,125,700, assuming projected participation estimates are achieved and based on the firm’s price proposal.

Q. PLEASE DESCRIBE THE CONTRACT UNDER WHICH THE
RESIDENTIAL LOAD MANAGEMENT PROGRAM WILL BE
ADMINISTERED.
A. While this contract has not yet been finalized, I can describe many of the most important contract provisions. The firm selected to administer this program is Comverge, Inc. This contract is also contingent upon Commission approval of the program. The target customers for this program are residential customers with refrigerated air conditioning, and small business customers with less than 150 kW of load. The term of this contract is ten years, and there will be substantial exit fees should PNM terminate this contract early. The termination fees increase annually beginning at $1.8 million in the first year of the contract to $7.4 million in year 4 and then decrease to $622,000 in the last year of the contract. The cost to PNM is based on delivered load kW. The projected capacity to be delivered starts at 10 MW in 2008 and grows to 43 MW in 2017. Comverge will be responsible for marketing to PNM’s customers, although PNM will have approval authority of all marketing materials. A summary of several of the contract provisions is contained in Section XII of PNM Exhibit GTO-1.

Q. PLEASE DESCRIBE THE CONTRACT UNDER WHICH THE COMMERCIAL LOAD MANAGEMENT PROGRAM WILL BE ADMINISTERED.

A. While these contracts have not yet been finalized, I can describe many of the most important contract provisions. The Commercial Load Management program will be administered under two contracts. Comverge will be responsible for delivering the load management program to commercial and industrial customers with less
than 150 kW of load. The contract terms will be similar to those described for the Residential Load Management program. The firm selected to administer this program for customers larger than 150 kW is EnerNOC, Inc. This contract is also contingent upon Commission approval of the program. The target customers for this program are business customers with more than 150 kW of load. EnerNOC will typically control refrigerated air conditioning, manufacturing process loads and refrigeration equipment. The term of this contract is ten years, and there will be substantial exit fees should PNM terminate this contract early. The termination fees range from $5 million in the first year of the contract to $500,000 in the last year of the contract. The cost to PNM is based on delivered load kW. The projected capacity to be delivered is 20 MW. EnerNOC will be responsible for marketing to PNM’s customers, although PNM will have approval authority of all marketing materials. PNM’s account management team will play a critical role introducing this program to their customers. A summary of several of the contract provisions is contained in Section XII of PNM Exhibit GTO-1.

Q. WHAT ARE THE ANTICIPATED COSTS ASSOCIATED WITH THE PROPOSED PROGRAMS?

A. The projected total program cost for the nine programs is estimated to be $7,546,884/year. These costs are based on projected first year participation rates. Section II. H of PNM Exhibit GTO-1 includes multi-year budget projections. In PNM’s annual compliance filing, PNM will propose to adjust the target based on
Q. WHAT COMPRISSES THESE PROGRAM COSTS?

A. These program costs are comprised of administrative costs (including labor costs), third party implementation costs, promotional costs, customer incentive costs, and costs associated with measurement and verification of the individual programs. The table below provides a breakdown of the total costs.

<table>
<thead>
<tr>
<th>Cost Type</th>
<th>Annual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Costs</td>
<td>$414,200</td>
</tr>
<tr>
<td>Third Party Implementation Costs</td>
<td>$4,443,606</td>
</tr>
<tr>
<td>Promotional Costs</td>
<td>$300,000</td>
</tr>
<tr>
<td>Incentive Costs</td>
<td>$2,049,700</td>
</tr>
<tr>
<td>Measurement &amp; Verification Costs</td>
<td>$339,338</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$7,546,884</strong></td>
</tr>
</tbody>
</table>

Q. HOW DID PNM ESTIMATE THE INCENTIVE COSTS?

A. The incentive costs were determined for each program primarily by studying other utilities’ experiences offering energy efficiency programs, discussions with local suppliers and contractors, and assessing the incentive necessary to encourage our customers to participate. For most of the programs, the incentive
level is between one-quarter and one-half of the total cost of the measure that is consistent with the assumptions used in the Potential Study.

Q. WHAT COMPRISSES THE ADMINISTRATIVE COSTS?

A. The administrative costs consist of PNM labor costs to coordinate with participating retailers and contractors, administer any contracts associated with the program, preparing annual compliance filings, and payments to third parties responsible for implementing the programs. PNM’s Energy Efficiency group formed earlier this year to develop and implement gas and electric efficiency programs will perform the in-house work.

Q. HOW DID PNM ESTIMATE THE ADMINISTRATIVE COSTS?

A. After developing the proposed programs, PNM assessed the manpower requirements of the function and identified anticipated labor budgets. Based on this assessment, PNM allocated 40% of the Energy Efficiency group budget to the programs proposed in this case. Additionally, PNM has identified the need for a new position to administer the two load management programs, and that cost is included. PNM’s proposed administrative costs are consistent with those of other utilities offering similar programs.

Q. HOW DID PNM ESTIMATE THE PROMOTIONAL COSTS?
A. PNM began by looking at the amount of money other utilities have devoted to promoting energy efficiency programs. This is typically on the order of 20% of the total program budget. Beyond that PNM prepared a tentative promotional plan to achieve a high level of program awareness among our residential customers. Based on our experience, we used this plan to create a promotional budget. This plan is shown in Section X of PNM Exhibit GTO-1.

Q. PLEASE PROVIDE ADDITIONAL DETAIL ABOUT THE ENERGY SAVER KIT DIRECT INSTALL PROGRAM?

A. PNM is proposing to enter into an agreement with the New Mexico MFA to provide $450,000 in funding for the purpose of installing CFLs and other items in the MFA’s weatherization efforts. This agreement will specify that the money provided by PNM can only be used on homes within PNM’s electric service territory. A more complete description of the MFA program is described in Section XI of PNM Exhibit GTO-1.

Q. WHY IS PNM PROPOSING TO DELIVER THE ENERGY SAVER KIT DIRECT INSTALL PROGRAM VIA THE MFA?

A. PNM believes this is the most efficient use of funds directed to low-income participants. First, because the MFA already administers low-income weatherization programs totaling over $2 million, the delivery infrastructure is already in place. This delivery infrastructure includes the process to determine
participant eligibility and the agreements with the contractors actually delivering
the programs. Second, based on the last five years of data, approximately 85% of
the weatherization funding actually goes to funding weatherization efforts, rather
than funding overhead expenses.

Q. HOW WILL PNM MAKE ELIGIBLE CUSTOMERS AWARE OF THE
ENERGY SAVER DIRECT INSTALL KIT?
A. PNM will include information about this program on its website, will produce
brochures to be distributed by PNM and MFA through their sub-contractors, and
will promote the program to customers through its call center. Additionally,
MFA conducts a significant outreach effort that is described in Section XI of
PNM Exhibit GTO-1.

Q. IS PNM PROPOSING TO INCLUDE IN THE RIDERS ANY COSTS
ASSOCIATED WITH OFFERING OR DEVELOPING THESE
PROGRAMS OTHER THAN THOSE COSTS ALREADY IDENTIFIED?
A. Yes, PNM is including all of the development costs. These costs are comprised
of PNM labor, and payments made to several consultants for assistance in
preparing the programs or for providing regulatory support. This includes the one-
time costs associated with the preparation of the electric appliance saturation
survey and the Potential Study. PNM is also including the costs for Itron to
support PNM’s program application. Additionally, PNM is proposing to include
the costs paid to Paragon Consulting. Paragon Consulting helped PNM develop
the RFP and evaluate the responses for the load management programs. PNM is
proposing to recover these costs over a three-year period. The 2006 PNM labor to
develop this filing is $65,015. The cost of the saturation study was $141,177. The
cost of the Potential Study was $159,027. PNM anticipates paying Itron $15,000
for regulatory support. PNM estimates that Paragon Consulting will be paid a
total of $46,606. The total one-time charges for these consulting firms are
$426,825.

Q. ARE THE COSTS OF THESE PROGRAMS REASONABLE?
A. Yes. PNM based the levels of our proposed incentives on other utility programs
and its knowledge of our customer base. Additionally, PNM compared the
composition of total costs to other utilities’ programs to ensure that these levels of
expenses were in-line with other companies’ experiences.

Q. HOW IS PNM PLANNING TO PROMOTE THESE PROGRAMS?
A. Promotion is very important. It must encourage customers to participate, and it
must also educate customers about energy efficiency. This makes adequate
promotional support crucial to the programs’ success. Because the residential
market is so large, we must utilize a variety of tactics to assure sufficient reach.
We intend to employ point of sale displays, print advertising, and radio
advertising. Reliance on multiple channels increases the message reach. To the
extent possible, we may also embed messages about these programs within existing communication channels, such as bill inserts. Nonetheless, PNM is only seeking recovery under the rate rider of incremental promotional expenses, those that are in addition to its regular communications budgets. Section X of PNM Exhibit GTO-1 shows an illustration of how the promotional costs will be split among communication channels.

III. PUBLIC ADVISORY PROCESS

Q. HAS PNM SOLICITED RECOMMENDATIONS ON PROGRAM DESIGN AND IMPLEMENTATION FROM COMMISSION STAFF, THE ATTORNEY GENERAL, THE ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT (“EMNRD”) AND OTHER INTERESTED PARTIES?

A. Yes, as specified in the Act and Section 8A of the Rule, PNM met with a Public Advisory Group ("Group") to obtain non-binding recommendations. This Group was comprised of representatives from Commission Staff, the Attorney General, EMNRD, Coalition for Clean Affordable Energy, Community Action New Mexico, MFA, the AARP, New Mexico Industrial Energy Consumers, the Natural Resource Defense Council, the Southwest Energy Efficiency Project ("SWEP"), the NM Shareholders Alliance, Siemens, NRG Engineering, and Xcel. PNM solicited input from this group through several meetings to discuss potential programs and the design of those programs. The dates and purposes of
these meetings are contained in Section II.E of the Program Plan. Lastly, a draft Program Plan was presented to the parties for their review and comment.

Q. DID PNM INCORPORATE ANY OF THE PUBLIC ADVISORY GROUP’S RECOMMENDATIONS INTO THE FINAL PROGRAM DESIGN?

A. Yes, there are several examples. Members of the group suggested that PNM develop a program addressing the increased penetration of refrigerated air conditioning in PNM’s service territory. As a result of research to address this suggestion, PNM developed the indirect cooling program. Several members of the group also recommended that PNM consider contracting for the administration of some of the programs to firms experienced in delivering efficiency programs. PNM also developed multiple year participation projections for the programs at the request of several of the parties.

IV. PROGRAM PERFORMANCE MEASURES

Q. HOW WILL PERFORMANCE BE MEASURED FOR THESE PROGRAMS?

A. The primary performance metrics for these programs will be cost effectiveness based on TRC calculations, actual participation compared to projected participation, and actual energy and/or demand savings compared to projected savings.
Q. HOW WILL THESE METRICS BE DETERMINED?

A. Participation in the CFL program will be measured by the number of CFLs sold; participation in the refrigerator program will be based on the number of refrigerators recycled. Participation in the indirect cooling program, the ENERGY STAR Home program, and the Commercial Lighting program will be based on the number of incentives paid out.

Savings will generally be based on the projected energy savings per participant multiplied by the number of participants. Delivered capacity for the Residential Load Management Program will be based on the number of participating customers. Delivered capacity for the Commercial Load Management Program will be based on a measurement of delivered capacity during an interruption. Cost effectiveness will be determined by using the actual results to calculate the actual TRC for the programs. All of this information will be subject to the independent evaluator’s analysis.

Q. PLEASE PROVIDE MORE DETAIL ABOUT HOW PNM WILL DETERMINE THE CAPACITY DELIVERED BY THE RESIDENTIAL LOAD MANAGEMENT PROGRAM?

A. Since the Residential Load Management Program involves a very large number of participants, it is impractical to meter individually the loads of every participant. Instead, Comverge will use statistical methods to evaluate capacity reductions.
Comverge will install utility grade meters, capable of recording energy usage every five minutes, and a dedicated communication system on the curtailable loads of two randomly selected samples of these participants. One sample will be the curtailed group and the other the comparison group. When load is curtailed, the equipment in the curtailed group is cycled on and off according to Comverge’s plan to reduce load. The equipment in the comparison group continues its usual cycling pattern. Comverge will retrieve data from all these meters during and after a curtailment and will calculate the average load of curtailable equipment for both groups for every 15-minute interval during the curtailment. Comverge will next calculate the difference in average loads between the two groups for every 15-minute interval. The maximum difference between loads of the two groups is the per-unit load reduction for this curtailment. Total capacity reduction for this curtailment is the per-unit load reduction times the number of participants. An independent program evaluator, hired in accordance with Commission rules, will independently verify total capacity reduction by checking Comverge’s fieldwork, data collection, and analyses.

Q. PLEASE PROVIDE MORE DETAIL ABOUT HOW PNM WILL DETERMINE THE CAPACITY DELIVERED BY THE COMMERCIAL LOAD MANAGEMENT PROGRAM?
A. For commercial customers with demands less than 50 kW, capacity reductions will be determined in the same manner as for the Residential Load Management Program.

For commercial customers with loads exceeding 50 kW, determining capacity reductions requires more sophisticated methods because of the diversity of the controlled loads. For these facilities, calculating capacity reductions requires estimating what the loads would have been on the day of a curtailment, absent the curtailment. The industry-standard method for doing this is to calculate a baseline load profile of electricity usage for each facility. Every participating facility will have metering capable of providing pulse output, representing energy usage of the entire facility over time, to the administrators of this program. The administrators use this energy usage data to construct a baseline load profile for each facility based on the data for the ten most recent days that were non-holiday weekdays and during which no curtailments occurred. When these customers’ loads are curtailed, the administrators first calibrate the baseline load to the day of the curtailment and then calculate the average baseline load for every five or fifteen minute interval for all participating facilities for the duration of the curtailment. The administrators also calculate the average actual load for every five or fifteen minute interval for all participating facilities for the duration of the curtailment. The difference between these two load profiles provides both the energy and capacity reductions during the curtailment period. An independent program evaluator, hired in accordance with Commission rules, will
independently verify total capacity reduction by checking Comverge’s fieldwork, data collection, and analyses.

Q. WHAT IS THE EXPECTED LIFE OF THE PROPOSED ENERGY EFFICIENCY PROGRAMS?

A. This will depend in part on customers’ reaction to the programs. PNM initially selected these programs intending to offer them for at least three years. If the programs continue to be fully subscribed at that point, PNM will likely continue to offer them. Alternately, if these programs are not achieving sufficient participation to pass the TRC, PNM will consider if the lack of participation is a result of program design or promotion, or whether it is a program that is simply not viable within PNM’s service territory. If PNM determines the shortfall results from program design, PNM will propose to modify the programs in order to improve participation. These proposed modifications will be contained in a filing made 90 days after the submission of the independent evaluator’s report as prescribed by the Rule. On the other hand, if PNM determines that the program is not viable, PNM will propose withdrawing the program.

Q. WHAT ARE PNM’S PLANS ONCE IT DETERMINES THESE PROGRAMS HAVE REACHED THE END OF THEIR USEFUL LIVES?
A. PNM intends to develop new programs to take the place of programs that are no longer necessary, although PNM cannot anticipate today what the replacement programs may be.

Q. **DO YOU ANTICIPATE THAT THESE PROGRAMS WILL BE COST EFFECTIVE IN 2007?**

A. That is unlikely because the TRC calculations are based on full year participation targets, and costs to implement the programs are front-end loaded. PNM will be unable to implement the proposed programs until PRC approval is received, probably not before the third quarter of 2007. Once approval is received, PNM will begin incurring the costs to implement the programs, but will likely not achieve sufficient customer participation to make the programs cost-effective for calendar year 2007. Nonetheless, it is important these programs be implemented as soon as possible to begin to build customer awareness of these programs and to realize the programs’ benefits.

V. **MEASUREMENT AND VERIFICATION**

Q. **HOW IS PNM PLANNING ON HANDLING MEASUREMENT AND VERIFICATION?**

A. Measurement and verification ("M&V") will be conducted by an independent program evaluator as outlined in the Efficient Use of Energy Act, and consistent with the Rule. As explained in Sections VI and VII of the Program
Plan, PNM anticipates that deemed savings will be used to determine actual
energy savings for the lighting programs, the refrigerator recycling program, the
Energy Saver Direct Install kits, and the indirect cooling programs. PNM
proposes that prospective independent evaluators be asked to recommend the
most appropriate means to conduct M&V for the ENERGY STAR Homes
program, and the load management programs during the RFP process to select the
independent evaluator.

Q. PLEASE DESCRIBE THE RELATIONSHIP BETWEEN THE PROPOSED
PROGRAMS AND THE PROGRAMS APPROVED IN NMPRC CASE NO.
05-00261-UT?

A. PNM proposed and received approval for a set of gas energy efficiency programs
in NMPRC Case No. 05-00261-UT. Approval was received in December 2005,
and the programs were implemented in February 2006. There is no direct
relationship between those programs and the electric programs proposed in this
case, other than that the same PNM department is responsible for both sets of
programs. PNM will also co-promote the two sets of programs in the portions of
its service territory where it provides both gas and electric service.

VI. CONCLUSION

Q. PLEASE INTRODUCE PNM’S OTHER WITNESSES.
DIRECT TESTIMONY OF
GERARD T. ORTIZ
NMPRC UTILITY CASE NO. 07-_______-UT

A. Mr. Michael Rufo of Itron will describe the Potential Study that identified potential electric efficiency programs in PNM’s service territory. Mr. John Fernald will present the design of the proposed rate riders that PNM will use to recover the costs associated with the programs.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. PNM is proposing six new residential and three new commercial electric energy efficiency or load management programs. The Refrigerator Recycling program, the Residential Lighting program, the Residential Indirect Cooling program, the ENERGY STAR Homes program, and the Residential Load Management program comprise the residential programs. The commercial programs include the Commercial Lighting program, the Commercial Indirect Cooling program, and the Commercial Load Management program. These programs offer the potential to significantly reduce the energy consumption and peak demand of PNM’s retail customers and provide the opportunity for broad participation among eligible customer classes. This set of programs was developed consistent with the Act and the Rule. PNM convened, and held several meetings with, a Public Advisory Group consisting of several stakeholders. All of the programs are cost effective, as measured by the TRC, separately and collectively. The TRC of the set of programs is 1.39. Once Commission approval is received, PNM anticipates offering the energy efficiency measures for at least 3 years, and the load
management for a period of ten years. M&V will be conducted as prescribed by the Rule.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.