BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF NEW MEXICO FOR APPROVAL TO ABANDON SAN JUAN GENERATING STATION UNITS 2 AND 3, ISSUANCE OF CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY FOR REPLACEMENT POWER RESOURCES, ISSUANCE OF ACCOUNTING ORDERS AND DETERMINATION OF RELATED RATEMAKING PRINCIPLES AND TREATMENT,	)	**Case No. 13-00_______-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant	)	

DIRECT TESTIMONY AND EXHIBITS

OF

HENRY E. MONROY

December 20, 2013

NMPRC CASE NO. 13-00_______-UT
INDEX TO THE DIRECT TESTIMONY OF HENRY E. MONROY
WITNESS FOR
PUBLIC SERVICE COMPANY OF NEW MEXICO

DIRECT TESTIMONY OF
HENRY E. MONROY
NMPRC CASE NO. 13-00_______-UT

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Henry E. Monroy. Effective March 16, 2013, I became Director, Cost of Service and Corporate Budget for PNM Resources, Inc. ("PNM Resources" or "PNMR") and its affiliates including Public Service Company of New Mexico ("PNM" or the "Company"). Prior to that date, I was Director, Utility Accounting in which I was responsible for the oversight and management of the utility accounting functions at PNM and Texas-New Mexico Power Company ("TNMP"). My business address is Public Service Company of New Mexico, Main Offices, 414 Silver SW, Mail Stop 0915, Albuquerque, NM 87102.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. My educational background and professional experience are summarized in PNM Exhibit HEM-1, which includes a tabulation of cases before the New Mexico Public Regulation Commission ("Commission" or "NMPRC"), Public Utility Commission of Texas, and Federal Energy Regulatory Commission, in which I have filed testimony or testified.

Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS DIRECTOR, COST OF SERVICE AND CORPORATE BUDGET.

A. As Director of Cost of Service and Corporate Budget, I am responsible for revenue requirement and cost of service related work for PNM and TNMP. This responsibility includes preparation of revenue requirement analysis and required testimony for regulatory filings. I am also responsible for PNM Resources' corporate budget activities, which include preparation of PNM Resources' annual operating plan.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to address the revenue requirement and customer rate impacts associated with PNM's compliance with the Regional Haze Rule under the federal Clean Air Act. Specifically, my testimony addresses the following:

- The revenue requirements associated with the Revised State Implementation Plan ("Revised SIP") adopted by the New Mexico Environmental Improvement Board on September 5, 2013, including the installation of Selective Non-Catalytic Reduction technology ("SNCR") with balanced draft on San Juan Generating Station ("SJGS") Units 1 and 4, retiring Units 2 and 3, and replacing the retired capacity with a mix of resources including Palo Verde Nuclear Generating Station Unit 3 ("PV Unit 3"), additional capacity in SJGS Unit 4, new solar generation, and a gas peaking plant. This is the portfolio of resources identified in Mr. O'Connell's testimony as the Revised SIP with Palo Verde Unit 3 ("Revised SIP with PV Unit 3");
- The revenue requirements of the Federal Implementation Plan ("FIP") requiring the installation of Selective Catalytic Reduction technology

("SCR") on all four units at SJGS (no replacement power is added in connection with the FIP);

- The potential impact on customer bills in 2018 under the Revised SIP with PV Unit 3 portfolio.

Q. HAVE YOU PREPARED EXHIBITS IN ADDITION TO PNM EXHIBIT HEM-1?

A. Yes. I have prepared the following additional exhibits:

- PNM Exhibit HEM-2: Summary of 2018 Estimated Revenue Requirements for the Revised SIP with PV Unit 3
- PNM Exhibit HEM-3: Illustrative Weighted Average Cost of Capital ("WACC")
- PNM Exhibit HEM-4: Undepreciated Investment in SJGS Unit 2 and 3 after Exchange for 78 MW in SJGS Unit 4
- PNM Exhibit HEM-5: Estimated 2018 Palo Verde Unit 3 Revenue Requirement
- PNM Exhibit HEM-6: Estimated 2018 SNCR Revenue Requirement
- PNM Exhibit HEM-7: Estimated 2018 Revenue Requirement for 177 MW Gas Peaker
- PNM Exhibit HEM-8: Estimated 2018 Revenue Requirement for 40 MW Solar Facility
- PNM Exhibit HEM-9: Estimated 2018 SCR Revenue Requirement
- PNM Exhibit HEM-10: Estimated 20-Year Annual Revenue Requirements for Alternative Resource Portfolios

- PNM Exhibit HEM-11: Estimated Impact of Revised SIP with PV Unit 3 on Customer Bills in 2018

II. <u>REVENUE REQUIREMENTS</u>

Q. BEFORE DISCUSSING SPECIFIC REVENUE REQUIREMENTS, PLEASE IDENTIFY ANY COMMON ASSUMPTIONS USED IN THE REVENUE REQUIREMENT CALCULATIONS?

A. First, all the revenue requirement calculations were made on a total company basis and these amounts were then allocated to the New Mexico retail jurisdiction based on a generation demand allocator of 93.33%. Second, the revenue requirements of individual resources and plant additions were calculated without regard to fuel cost impacts. The impacts of these additions on fuel costs are addressed in another section of my testimony where I compare the incremental changes in fuel costs of alternative resource portfolios. Third, to calculate the return on rate base, PNM used an after-tax weighted average cost of capital ("WACC") of 8.18% which reflects PNM's actual capital structure as of December 31, 2012. Please see PNM Exhibit HEM-3 for the assumptions included in the calculation of the after-tax WACC.

Q. IS PNM ASKING THE COMMISSION TO APPROVE THE CAPITAL STRUCTURE, WACC, AND ALLOCATION FACTORS USED IN THE REVENUE REQUIREMENT CALCULATIONS?

A. No. The capital structure, WACC, allocations, and resulting revenue requirements shown in my exhibits are presented solely to illustrate the potential impacts on revenue requirements of PNM's proposals in this case. Actual revenue requirements will be determined in future rate proceedings.

Q. PLEASE SUMMARIZE THE ESTIMATED REVENUE REQUIREMENTS OF THE REVISED SIP WITH PV UNIT 3 PORTFOLIO.

A. PNM Exhibit HEM-2 presents the estimated 2018 revenue requirements of the Revised SIP with PV Unit 3 portfolio. This revenue requirement calculation includes the following resources and plant additions:

- the incremental costs of recovering the undepreciated investment in SJGS Units 2 and 3 over a 20-year period, after the exchange for 78 MW of additional capacity in SJGS Unit 4,
- the installation of SNCR, including balanced draft, on SJGS Units 1 and 4,
- PV Unit 3 at a value of $335 million ($2,500/kW),
- a 177 MW gas peaking facility and
- a 40 MW solar facility.

The gas and solar facilities have been included in the calculation of revenue requirements, even though they are not part of the application in this case, in order to provide the Commission with a complete picture of potential revenue requirements in 2018. In addition, to present a total cost comparison between the Revised SIP with PV Unit 3 and the FIP, I have included the impacts associated with estimated savings in

O&M and fuel handling expenses at SJGS and impacts to base fuel costs under these two portfolios.

III. SAN JUAN GENERATING STATION

Q. HOW WILL THE ACQUISITION OF 78 MW OF GENERATION CAPACITY IN SJGS UNIT 4 BE REFLECTED ON PNM'S BOOKS?

A. As described in the Direct Testimony of Mr. Sategna, the 78 MW will be acquired in exchange for 78 MW of capacity that PNM owns in Unit 3. The 78 MW of Unit 4 to be acquired will be recorded on PNM's books at the net book value per MW of PNM's 78 MW of capacity in Unit 3 at the effective date of the acquisition. The value as of January 1, 2015 is projected to be $673 per kW and would result in an increase in the net book value of PNM's interest in SJGS Unit 4 of $52,494,000 and a decrease of the same amount in the net book value of its interest in SJGS Unit 3, as shown in PNM Exhibit HEM-4.

Q. HAS PNM CALCULATED A SEPARATE REVENUE REQUIREMENT FOR THE PROPOSED ACQUISITION OF 78 MW IN SJGS UNIT 4?

A. No. As stated above, this acquisition is the result of an exchange between SJGS Unit 3 and SJGS Unit 4 at the estimated net book value of the SJGS Unit 3 capacity. Since the 78 MW of capacity in Unit 3 is already included in customer rates, PNM does not expect any incremental revenue requirement to result from the exchange of that capacity for the same amount of capacity in Unit 4.

Q. PLEASE IDENTIFY THE UNDEPRECIATED INVESTMENT ASSOCIATED WITH SJGS UNITS 2 AND 3 FOR WHICH PNM IS SEEKING RATE TREATMENT.

A. The estimated book balance associated with the early retirement of SJGS Units 2 and 3 is $204,995,787 as of December 31, 2017, after the 78 MW transfer of capacity in SJGS Unit 3 for the same amount of capacity in SJGS Unit 4 on January 1, 2015. For this estimate, PNM took the net book value of Units 2 and 3 as of June 30, 2013, and used current capital projections and existing depreciation rates to project the net book value as of December 31, 2017. Please refer to PNM Exhibit HEM-4.

Q. WHAT IS THE INCREMENTAL REVENUE REQUIREMENT ASSOCIATED WITH RECOVERY OF THE UNDEPRECIATED INVESTMENT IN SJGS UNITS 2 AND 3?

A. The incremental revenue requirement reflects the difference between the current treatment of Units 2 and 3, whereby PNM receives a full return on and of its investment in the units over their remaining lives of 36 years and PNM's proposal to receive a full return on and of the undepreciated investment in SJGS Unit 2 and 3 as a regulatory asset amortized over a 20-year period. This shortening of the recovery period results in an incremental revenue requirement of $4,124,122 in 2018, as shown on PNM Exhibit HEM-4.

Q. DOES THE ESTIMATED INCREMENTAL REVENUE REQUIREMENT FOR RECOVERY OF THE UNDEPRECIATED INVESTMENT IN UNITS 2 AND 3 INCLUDE THE EFFECTS OF ACCUMULATED DEFERRED INCOME TAXES ("ADIT")?

A. Yes. PNM projects a rate base reduction in 2018 of $77,190,139 associated with the expected ADIT on the requested regulatory asset for the undepreciated investment in SJGS Units 2 and 3.

Q. ARE THERE ANY OTHER TAX RELATED ITEMS ASSOCIATED WITH THE UNDEPRECIATED INVESTMENT IN SJGS UNITS 2 AND 3 THAT AFFECT THE REVENUE REQUIREMENT?

A. Yes. There are two tax effects that will affect the recoverable amount. First, there are unreversed flow-through basis differences related to the investment in SJGS Units 2 and 3, primarily Equity Allowance for Funds Used During Construction ("AFUDC"). These differences between the book basis and the tax basis of utility assets results in a benefit to customers through reduced recoverable income tax expense in the year they originated. The reversal of these flow-through differences will increase recoverable tax expense in the final revenue requirement calculations. Over the life of the underlying assets, there is no increase or decrease to total recoverable income tax expense as a result of these basis differences. Second, Investment Tax Credit ("ITC") amortization related to the investment in SJGS Units 2 and 3 will decrease recoverable tax expense in the final revenue requirement calculation. PNM will calculate these impacts in future rate proceedings, but does not anticipate that the differences will be material.

Q. ARE THESE TAX EFFECTS CURRENTLY INCLUDED IN THE CALCULATION OF BASE RATES FOR PNM?

A. Yes, they are. Currently, these items are recognized over the book life of the underlying plant assets. The recovery period will change to correspond to the 20-year recovery period for the undepreciated investment in SJGS Unit 2 and 3.

Q. WHAT ARE THE O&M SAVINGS IDENTIFIED AS THE RESULT OF THE PROPOSED RETIREMENT OF SJGS UNITS 2 AND 3?

A. PNM has projected the O&M savings associated with the retirement of SJGS Unit 2 and 3 to be $22,301,049 in 2018, as shown on PNM Exhibit HEM-2. These savings were calculated by comparing the forecasted 2018 O&M expense for the two SJGS units that will not be retired, to the forecasted O&M expense expected under the FIP for all four units, but excluding any incremental O&M costs directly associated with the SNCR with balanced draft or SCR technology. These amounts were excluded because they are separately accounted for in the revenue requirements for the individual plant items, shown in PNM Exhibits HEM-6 and HEM-9 respectively. The O&M savings reflect a reduction in common costs, and general operations and maintenance and administrative expenses, as well as a reduction in fuel handling expenses.

IV. PALO VERDE UNIT 3

Q. PLEASE EXPLAIN THE CALCULATION OF THE REVENUE REQUIREMENTS FOR PV UNIT 3.

A. PNM Exhibit HEM-5 presents the calculation of the 2018 revenue requirements related to recertifying PV Unit 3 as a resource to serve New Mexico retail customers. The calculation is based on an average rate base for calendar year 2018, plus projected 12 months of expenses for 2018. The 2018 revenue requirement is estimated at $67,758,087. The revenue requirement includes the following components:

Rate Base:

a. Net book value of the generation assets for PV Unit 3, as of January 1, 2018, of $335,000,000, based on the fair valuation proposed by Mr. Darnell of $2,500 per KW of capacity;

b. Projected net book value of $2,976,377 related to the transmission assets associated with PV Unit 3;

c. Estimated ADIT balances;

d. Estimated working capital balances, including nuclear fuel inventory, materials and supplies inventory, and prepayments;

Operating Expenses

e. Estimated O&M expense to operate and maintain PV Unit 3, including normalized outage expenses, and third-party transmission expense necessary to move power from PV Unit 3 to serve retail load;

f. Estimated depreciation expense, based on a recovery period of 29 years, corresponding to the termination date of the PV Unit 3 operating license in 2047;

g. Estimated property taxes, based on the estimated balance of net plant in service;

h. Estimated decommissioning expense based on projected funding requirements associated with the nuclear decommissioning of Palo Verde Unit 3;

Income Taxes and Other

i. Federal and state income taxes for the return on rate base; and

j. Revenue tax calculation based on the current New Mexico Inspection and Supervision ("I&S") fees.

V. SNCR WITH BALANCED DRAFT

Q. PLEASE EXPLAIN THE CALCULATION OF THE REVENUE REQUIREMENTS FOR SNCR WITH BALANCED DRAFT.

A. PNM Exhibit HEM-6 presents the calculation of the 2018 revenue requirements for the SNCR with the balanced draft conversion. The projected in-service date for the SNCR is January 2016. The projected in-service dates for the balanced draft conversion are April 2015 for SJGS Unit 1 and December 2015 for SJGS Unit 4. The revenue requirement calculation assumes an average rate base for calendar year 2018, plus projected 12 months of expenses for 2018. The 2018 annual revenue requirement is estimated at $12,685,971. The revenue requirement includes the following components:

Rate Base:

a. Estimated gross plant in service, net of accumulated depreciation; and

b. Estimated ADIT balances;

Operating Expenses

c. Estimated O&M expense reflecting the cost of urea to operate the SNCR;

d. Estimated depreciation expense, based on the remaining life of SJGS Units 1 and 4 through 2053;

e. Estimated property taxes, based on the estimated balance of net plant in service;

Income Taxes and Other

f. Federal and state income taxes for the return on rate base; and

g. Revenue tax calculation based on the current New Mexico I&S fees.

Q. WHAT ARE THE ESTIMATED CONSTRUCTION COSTS FOR THE SNCR AND BALANCED DRAFT AT SJGS UNITS 1 AND 4.

A. PNM's share of the costs of constructing the SNCR and balanced draft on SJGS Units 1 and 4, including AFUDC, is estimated to be $81,937,374. This amount reflects PNM's increased ownership interest in SJGS Unit 4 as a result of the 78 MW transfer described earlier in my testimony.

VI. REPLACEMENT POWER

Q. WHAT REPLACEMENT POWER OPTIONS HAVE YOU INCLUDED IN THE CALCULATION OF THE REVENUE REQUIREMENT FOR THE REVISED SIP WITH PV UNIT 3 RESOURCE PORTFOLIO?

A. In addition to the 78 MW of additional capacity in SJGS Unit 4, and the inclusion of PV Unit 3 as a jurisdictional resource to serve New Mexico retail customers, for which PNM is seeking CCN approval in the proceeding, PNM has identified two potential replacement power facilities for which Commission approval would be requested in future proceedings: a 177 MW gas peaking facility and a 40 MW solar facility. All of these resources are included as replacement resources in PNM's revenue requirement estimate for the Revised SIP with PV Unit 3 portfolio.

Q. PLEASE EXPLAIN THE CALCULATION OF THE REVENUE REQUIREMENTS FOR THE 177 MW GAS FACILITY.

A. PNM Exhibit HEM-7 presents the calculation of the 2018 revenue requirements for the projected 177 MW gas facility. The projected in-service date for this facility is April, 2018. The calculation assumes an average rate base for calendar year 2018, plus projected 12 months of expenses for 2018. The 2018 annual revenue requirement is estimated at $21,537,655. The revenue requirement includes the following components:

Rate Base:

a. Estimated gross plant in service, net of accumulated depreciation, for the 177 MW gas facility and a gas pipeline to serve the facility;

b. Estimated ADIT balances;

Operating Expenses

c. Estimated O&M expense reflecting the cost to operate and maintain the 177 MW gas facility and gas pipeline;

d. Estimated depreciation expense, based on an estimated useful life of 40 years;

e. Estimated property taxes, based on the estimated balance of net plant in service;

Income Taxes and Other

f. Federal and state income taxes for the return on rate base; and

g. Revenue tax calculation based on the current New Mexico I&S fees.

Q. PLEASE EXPLAIN THE CALCULATION OF THE REVENUE REQUIREMENTS FOR THE 40 MW SOLAR FACILITY.

A. PNM Exhibit HEM-8 presents the calculation of the 2018 revenue requirements for the proposed 40 MW solar facility. The projected in-service date for the 40 MW solar facility is January 2016. The calculation assumes an average rate base for calendar year 2018, plus projected 12 months of expenses for 2018. The 2018 annual revenue requirement is estimated at $11,027,796. The revenue requirement includes the following components:

<u>Rate Base</u>:

<u>a.</u> Estimated gross plant in service, net of accumulated depreciation;

<u>b.</u> Estimated ADIT balances;

<u>Operating Expenses</u>

<u>c.</u> Estimated O&M expense reflecting the cost to operate and maintain the 40 MW solar facility;

<u>d.</u> Estimated depreciation expense, based on an estimated useful life of 30 years;

<u>e.</u> Estimated property taxes, based on the estimated balance of net plant in service;

<u>Income Taxes and Other</u>

<u>f.</u> Federal and state income taxes for the return on rate base, including Federal Investment Tax Credits; and

<u>g.</u> Revenue tax calculation based on the current New Mexico I&S fees.

VII. BASE FUEL IMPACTS UNDER PNM APPLICATION

Q. HAS PNM CALCULATED THE BASE FUEL IMPACTS ASSOCIATED WITH THE REVISED SIP WITH PV UNIT 3 AND COMPARED THOSE TO THE BASE FUEL IMPACTS OF THE FIP?

A. Yes. PNM utilized PROMOD to calculate the forecasted base fuel cost for PNM retail customers under the Revised SIP with PV Unit 3 portfolio and under the FIP portfolio. PNM utilized the market price curves provided by PACE Global that incorporate the projected impacts of carbon and other factors on future market prices for gas and electricity. In 2018 there is a net fuel cost saving of $3,127,294 under the Revised SIP with PV Unit 3 portfolio compared to the FIP portfolio. These fuel cost savings are primarily the result of replacing coal with nuclear fuel, and the additional solar generation, which has no fuel costs.

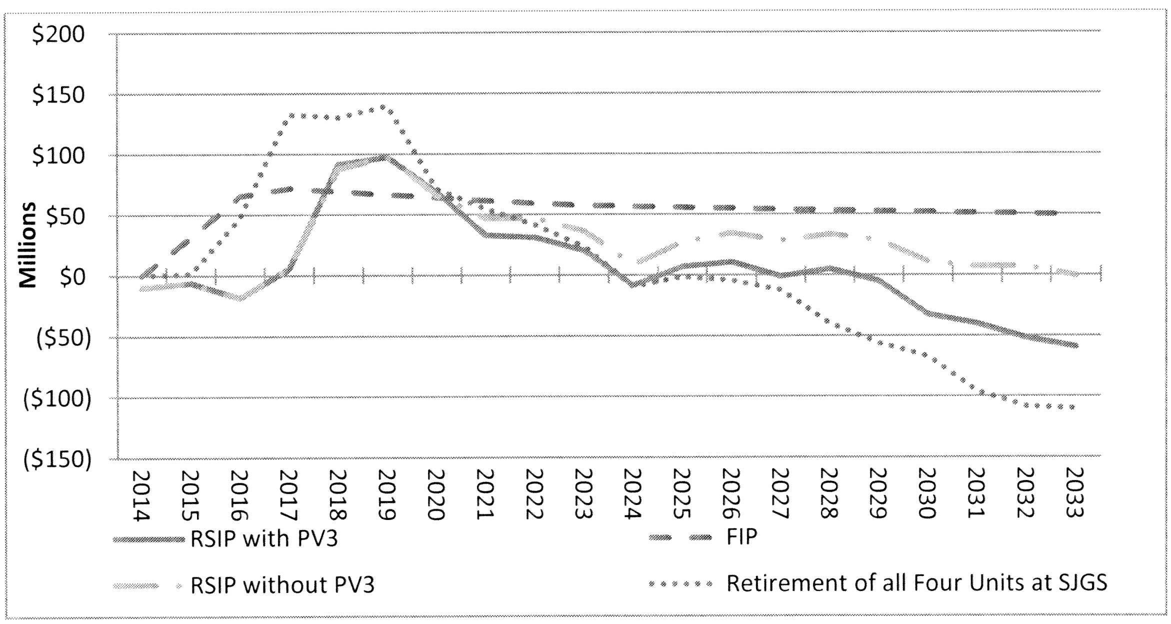
VIII. REVENUE REQUIREMENT FOR OTHER ALTERNATIVES

Q. HAVE YOU PERFORMED A CALCULATION OF REVENUE REQUIREMENTS UNDER THE FIP RESOURCE PORTFOLIO?

A. Yes. The 2018 revenue requirements for the FIP portfolio are shown in PNM Exhibit HEM-9. These revenue requirements assume the installation of SCR technology on all four units at SJGS. PNM has assumed the SCR technology on Unit 3 would be in-service in May 2015, Unit 1 SCR would be in-service in December 2015, Unit 4 SCR would be in-service in May 2016 and Unit 2 SCR would be in-service in December 2016. The revenue requirements identify the incremental operating expenses associated with the FIP, including expenses specific to the operation and maintenance of the SCR technology, and depreciation and property taxes associated with the SCR.

Q. HAS PNM PREPARED ANY OTHER REVENUE REQUIREMENTS ANALYSES?

A. Yes. PNM has estimated the annual incremental revenue requirements for each year from 2014 through 2033 for each of the four alternative resource portfolios identified by Mr. O'Connell, including the Revised SIP with PV Unit 3, Revised SIP without PV Unit 3, the FIP, and retirement of all four units at SJGS. The table below shows the incremental revenue requirements of these portfolios over the 20-year planning period. See PNM Exhibit HEM-10.



IX. CUSTOMER BILL IMPACTS

Q. WHAT IS THE ESTIMATED ANNUAL CUSTOMER BILL IMPACT UNDER THE REVISED SIP WITH PV UNIT 3 PORTFOLIO?

A. PNM Exhibit HEM-11 presents the estimated annual customer bill impacts in 2018 of the Revised SIP with PV Unit 3 portfolio. In these calculations the total revenue requirement was allocated among rate classes in proportion to the revenue generated by each rate class in 2012. For example, in 2012, residential customers contributed 44.38% of total revenues, so the bill impact estimate allocates 44.38% of the revenue requirements associated with the Revised SIP with PV Unit 3 to the residential customers.

For an average residential customer consuming 600 kWh per month, the estimated annual bill impact in 2018 of the RSIP with PV Unit 3 is $87.91. A small power customer consuming 1,500 kWh per month would experience an estimated annual bill impact of $230.84 in 2018. Average bill impacts for other customer classes are shown on PNM Exhibit HEM-11.

Q. IS PNM ASKING THE COMMISSION TO APPROVE THE ESTIMATED BILL IMPACTS OR TO AUTHORIZE A CHANGE IN RATES AT THIS TIME?

A. No. The estimated bill impacts have been provided solely to provide the Commission with information regarding the potential impact of approval of

PNM's Application on future customer bills. The actual rate impact will depend on the actual revenue requirements and rate design adopted when new rates are set in future PNM retail rate proceedings.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

GCG#517365