STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD

IN THE MATTER OF THE PROPOSED REVISIONS
TO THE STATE IMPLEMENTATION PLAN
FOR REGIONAL HAZE

No. EIB 11-01(R)

NOTICE OF INTENT TO PRESENT TECHNICAL TESTIMONY ON BEHALF OF PUBLIC SERVICE COMPANY OF NEW MEXICO

Pursuant to 20.1.1.302.A NMAC and the Order Establishing Procedures, Public Service Company of New Mexico ("PNM") hereby submits its Notice of Intent to Present Technical Testimony ("Notice") in the above-proceeding.

1. **The person for whom the witnesses will testify:**

Public Service Company of New Mexico.

2. **The name and qualification of each technical witness:**

- Patrick Themig, Vice President, Generation for PNM. Mr. Themig's statement of qualification is attached as PNM Exhibit PJT-1 to his pre-filed testimony filed herewith.
- Gerard T. Ortiz, Executive Director of New Mexico Retail Services for PNM. Mr. Ortiz's statement of qualification is attached as PNM Exhibit GTO-1 to his pre-filed testimony filed herewith.
- Diane M. Fischer, Air Quality Control Project Manager and Kyle J. Lucas, Air Quality Scientist, both of Black & Veatch Corporation. Ms. Fischer and Mr. Lucas will be presented as a panel at the hearing herein. Statements of their

respective qualifications are attached as PNM Exhibit B&V-1 and B&V-2 to their pre-filed testimony.

- Peter A. Valberg, Ph.D. of Gradient Corporation. Dr. Valberg may be called as a rebuttal witness. A copy of Dr. Valberg's statement of qualification is attached hereto as PNM Exhibit D.

3. Summary and Estimated Duration of Testimony.

The full text of the PNM witnesses' pre-filed testimony is attached to this Notice as exhibits and described more fully below. It is anticipated that each witness will provide introductory remarks concerning their respective pre-filed testimony of not more than 15 minutes and will thereafter be subject to questions by interested parties. The witnesses will testify in the locations set for the hearing in this proceeding. In accordance with the Order Establishing Procedures in this proceeding, PNM reserves the right to present rebuttal testimony and exhibits in response to comments or testimony submitted by other interested parties.

4. Text of Recommended Modifications to the Proposed Regulatory Change.

PNM supports the regulatory change as proposed by the Petitioner.

5. List and Description of Exhibits

The following exhibits are attached to this Notice and tendered into the record in this proceeding:

PNM Exhibit A – Pre-filed Testimony of Patrick J. Themig and PNM Exhibits PJT-1 and PJT-2 attached thereto.

PNM Exhibit B – Pre-filed Testimony of Gerard T. Ortiz and PNM Exhibits GTO-1, GTO-2 and GTO-3 attached thereto.

PNM Exhibit C – Pre-filed Testimony of Diane M. Fischer and Kyle J. Lucas of Black & Veatch and PNM Exhibits B&V-1, B&V-2, B&V-3 and B&V-4 attached thereto.

PNM Exhibit D – Resume of Peter Valberg, Ph.D.

6. Reservation of Rights

PNM reserves the right to call any person to testify, and to present any exhibit, in response to any other notice of intent or public comment filed or submitted in this proceeding. PNM further reserves the right to refer to any testimony or exhibit offered in this proceeding by another other interested person.

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Attorneys for Public Service Company of New Mexico

CERTIFICATE OF SERVICE

I certify that a true and correct copy of the foregoing Notice was mailed to the following on May 17, 2011:

Bill Grantham
NM Environment Department
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Santa Fe, New Mexico 87502-5469

Louis Rose
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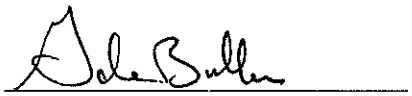
Stephen A. Vigil
Office of Attorney General
Civil Division
P.O. Box 1508
Santa Fe, New Mexico 87504-1508



Galen M. Buller

PNM EXHIBIT "A"
TO NOTICE OF INTENT

STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD

IN THE MATTER OF THE PROPOSED REVISIONS TO THE STATE IMPLEMENTATION PLAN FOR REGIONAL HAZE **No. EIB 11-01(R)**

PRE-FILED TESTIMONY OF PATRICK J. THEMIG
SUBMITTED ON BEHALF OF PUBLIC SERVICE COMPANY OF NEW MEXICO

INTRODUCTION

My name is Patrick J. Themig. I am Vice President, Generation, for Public Service Company of New Mexico ("PNM" or "Company"). My address is 414 Silver Avenue, SW, Albuquerque, New Mexico 87102. A statement of my qualifications is attached as PNM Exhibit PJT-1. I am responsible for the strategic direction and operation of PNM's electric generating resources to ensure that they continue to provide safe, reliable and efficient electricity to customers within PNM's service territory. The functions I oversee include generation operations, maintenance, engineering, construction, Wholesale Power Marketing and other services related to the electric generation fleet for PNM's New Mexico customers.

PNM appreciates the opportunity to testify before the Environmental Improvement Board ("Board") concerning the Regional Haze State Implementation Plan ("SIP") proposed by the New Mexico Environment Department ("NMED"). The NMED SIP includes a determination of Best Available Retrofit Technology ("BART") with respect to the emissions controls for the San Juan Generating Station ("San Juan"). As a part owner and sole operator of San Juan, PNM has a vested

interest in new regulatory requirements that may apply, particularly with regard to emission controls such as those proposed in the NMED SIP.

In addition to my testimony, PNM is sponsoring technical testimony from a panel of experts from Black & Veatch, an internationally recognized consulting and engineering firm. Black & Veatch will address (a) its BART analysis for San Juan, including the emissions technologies considered; (b) the relative costs for these technologies; and (c) the results of the air modeling conducted for the technologies considered. Gerard Ortiz, PNM's Executive Director of New Mexico Retail Regulatory Services, will address the regulatory process for setting electric rates and provide the estimated rate impacts to PNM residential customers as a result of the technologies that are currently under consideration as constituting BART for San Juan.

PURPOSE OF MY TESTIMONY

My testimony will provide the Board with some basic information about PNM and the customers it serves. I will also provide information about San Juan and its significance to New Mexico and the Four Corners area. My testimony also includes a summary of the recently completed environmental upgrades at San Juan and the significant reductions in air emissions that have already been achieved. I hope that this background information provides some useful context for the Board's deliberations in this proceeding.

I also address PNM's own BART determination for San Juan as well as PNM's position on the EPA's proposed BART determination. Finally, my testimony confirms PNM's support for the NMED's BART determination for San Juan. While PNM stands behind its initial

analysis, we believe that the NMED's proposed SIP, including the BART determination, addresses the necessary elements under the EPA's Regional Haze Rule and strikes an appropriate balance between reducing air emissions and protecting San Juan customers from undue costs.

INTRODUCTION TO PNM

PNM is an electric utility that is dedicated to providing reliable, safe and cost-effective electric service to its customers. It was incorporated in New Mexico in 1917 and since that time has grown with the state to meet the energy needs of its customers. PNM is one of three investor-owned electric utility companies in the state, the others being El Paso Electric Company and Southwestern Public Service Company. PNM employs over 1,500 employees in New Mexico. PNM's parent company, PNM Resources, Inc., is the only publicly traded company headquartered in New Mexico and listed on the New York Stock Exchange.

PNM's basic utility operations consist of generation, transmission and distribution of electricity for over half of a million customers in New Mexico. PNM owns, leases, or purchases a diverse portfolio of 2,445 MWs of electric generation and relies upon that portfolio to cost-effectively supply the electric needs of its New Mexico customers. Table PJT-1 below shows PNM's existing generation resources, including the solar PV facilities that will be on-line by the end of this year. San Juan comprises about a third of PNM's current generation capacity and over half of PNM's annual energy generation.

Table PJT-1

PNM's Regulated Generation Resources

Generating Plant	Fuel Type	PNM Ownership	PNM Share of Capacity (MW's)	In-Service Date	Operating Agent
San Juan	Coal	46.3 %	810	1973-1982	PNM
Palo Verde 1 & 2	Nuclear	10.2 %	268	1985-1986	APS
Four Corners 4 & 5	Coal	13 %	196	1969-1970	APS
Afton	Natural Gas	100 %	230	2007	PNM
Reeves	Natural Gas	100 %	154	1958-1962	PNM
Lordsburg	Natural Gas	100 %	80	2002	PNM
Luna Energy Facility	Natural Gas	33.3 %	190	2006	PNM
Las Vegas	Fuel Oil	100 %	18	1973	PNM
Delta (PPA)	Natural Gas	N/A	132	2001	Delta Person LLC
Valencia (PPA)	Natural Gas	N/A	145	2008	SWG Valencia Power LLC
NMWEC (PPA)	Wind	N/A	200	2003	FPL
PV Solar Sites	Solar	100%	22	2011	PNM
TOTAL			**2,445**		

INTRODUCTION TO SAN JUAN

For nearly 40 years, San Juan has provided reliable energy at a reasonable cost to consumers in New Mexico and much of the West. San Juan provides energy to more than 1 million New Mexico consumers, including over 500,000 PNM customers, 450,000 New Mexico rural electric cooperative customers, 44,000 City of Farmington customers and 8,500 Los

Alamos County customers. All told, San Juan provides electricity to over two million customers that are served by it owners.

San Juan is critical to the electricity needs of New Mexicans. It provides necessary base load generation for PNM which is essential to maintaining reliable electric service. San Juan and its related transmission facilities are also critical to the western power grid. Without San Juan, electric reliability in the western power grid would suffer.

San Juan Generating Station consists of four units with 1,684 net megawatts ("MW") of electric generation capacity. The net generation capacity and in-service date for each of the four units at San Juan are:

- Unit 1: 340 MW, on line in 1976
- Unit 2: 340 MW, on line in 1973
- Unit 3: 497 MW, on line in 1979
- Unit 4: 507 MW, on line in 1982

San Juan is located in Waterflow, New Mexico, 15 miles west of Farmington. It is what is commonly known as a "mine mouth" plant and is located immediately adjacent to the San Juan Coal Mine. The mine is operated by the San Juan Coal Company, an affiliate of BHP Billiton. The San Juan Coal Mine provides the necessary fuel for San Juan.

The ownership of San Juan is made up of a diverse group of entities. Two New Mexico municipal entities, the County of Los Alamos and the City of Farmington, each own separate

interests in San Juan. Other governmental entities owning interests in San Juan include the City of Anaheim, California, M-S-R Public Power Agency, Utah Associated Municipal Power Systems, and the Southern California Public Power Authority. Tri-State Generation and Transmission Association, Inc. is a part owner of San Juan and provides electric generation to New Mexico's rural electric cooperatives. San Juan is also an important resource for Tri-State's Southwest Colorado members and supplies up to 15% of their annual energy requirements. Tucson Electric Power, an investor-owned utility, also has an interest in San Juan. Table PJT-2 below shows the ownership interests by unit at San Juan.

Table PJT-2: San Juan Ownership Structure

Owner	Unit 1	Unit 2	Unit 3	Unit 4
PNM	50.0 %	50.0 %	50.0 %	38.5 %
City of Farmington	--	--	--	8.5%
Los Alamos County	--	--	--	7.2%
Tri-State G&T	--	--	8.2%	--
Tucson Electric Power	50.0 %	50.0 %	--	--
Southern California Public Power Authority	--	--	41.8%	--
M-S-R Public Power Agency	--	--	--	28.8%
City of Anaheim	--	--	--	10.0%
Utah Associated Municipal Power	--	--	--	7.0%

Not only is San Juan a low cost, reliable source of energy for consumers, it also has a significant economic impact on the Four Corners region. Approximately 394 area residents are

employed at the plant with an annual payroll and benefits of $56.8 million. San Juan Coal Company, the fuel supplier for San Juan, employs 529 area residents with an annual payroll of $46 million. The workforces at San Juan and San Juan Coal Company are diverse and include very significant representation from the local NativeAmerican community – in fact, 22 percent of the San Juan employees and 46 percent of the San Juan Coal Company employees are Native American. The power plant and related coal mine operations are especially important to the nearby Navajo Nation where unemployment has fluctuated between 40 percent and 45 percent in recent years.

The employees of San Juan are actively involved in the local community. PNM has donated nearly $2 million to the San Juan College School of Energy to support the college and its power plant-related education programs. PNM also funds eight scholarships offered through an endowment at the San Juan College Foundation. San Juan also helps support local schools and non-profits.

San Juan is also very important to the local tax base. It pays more than $54 million each year in coal royalties and taxes to governments and tribes, and $6.4 million each year to San Juan County in property taxes. The plant spends an average of $29 million each year for materials and supplies and an additional $402 million in service contracts, including payments for removal of coal and ash.

SAN JUAN ENVIRONMENTAL UPGRADES

In 2009 the owners of San Juan completed significant upgrades to the station's emissions controls. From 2005 through 2009, PNM and the other owners invested more than $320 million in the following state-of-the-art pollution control equipment for San Juan:

- Pulse-jet fabric filter baghouses ("baghouses") that filter all of the flue gas, removing particulate matter and mercury;
- Activated carbon injection equipment that enhances mercury removal in the baghouses;
- Low NO_x combustion control equipment comprised of low NO_x burners, overfire air ports, and a control system modification to reduce the production of oxides of nitrogen ("NO_x"); and
- Elimination of flue gas bypass of the sulfur dioxide ("SO_2") scrubbing system and addition of dibasic acid as needed to increase SO_2 removal.

Overall, these recent upgrades have reduced NO_x emissions by 44%, SO_2 emissions by 71%, and particulate matter emissions by 72% based on a comparison of the 2005 and 2010 actual emissions. Notably, San Juan is an industry leader in mercury emissions control, achieving a 99% removal rate based on EPA-required stack testing and using new activated carbon injection technology. The effectiveness of this technology was considered by EPA in setting the proposed new standard for Maximum Achievable Control Technology for the entire industry with respect to mercury controls.

THE SAN JUAN BART ANALYSES

As will be discussed below, there are three different proposed BART determinations for San Juan. PNM, EPA and NMED reached differing conclusions about what constitutes BART with respect to NOx controls for San Juan. The three BART determinations are summarized below.

The PNM BART Analysis

The basic history of the EPA's Regional Haze Rule and the related need for a BART analysis for certain BART-eligible sources, such as San Juan, are detailed in the testimony filed in this proceeding by NMED. As noted in that testimony, PNM, at the instruction of the NMED, submitted a detailed BART analysis for San Juan dated June 6, 2007. This analysis was prepared by Black & Veatch. PNM's BART analysis was specific to San Juan and was prepared in accordance with the 5-step BART analysis described in EPA's Guidelines for BART Determinations under the Regional Haze Rules in 40 CFR Part 51, Appendix Y.

Based on this analysis, PNM concluded that the newly installed baghouses on Units 1 through 4 should be considered BART for the control of particulate matter. Additionally, PNM's analysis concluded that based on the type of coal and burner system used on the boilers at San Juan, BART for NOx control for all four units was low NOx burners with overfired air controlled using a neural network to optimize combustion. During the intervening years since 2006 when PNM submitted its initial BART analysis for San Juan, PNM provided additional information and data at the request of the NMED. The dates of the additional submissions are noted in the NMED's testimony in this case.

The Initial NMED BART Analysis

The NMED filed an initial petition with the Board in June 2010 for adoption of a Regional Haze SIP for New Mexico. Included in the proposed SIP was a BART determination for San Juan which, if adopted, would have required the installation of selective catalytic reduction ("SCR") technology on all four units. However, the NMED withdrew its initial SIP petition in December 2010 and that petition is not presently before the Board.

The EPA BART Analysis

Following the withdrawal of the initial NMED Regional Haze SIP petition last December, EPA Region 6 prepared a proposed interstate transport Federal Implementation Plan ("FIP") for New Mexico, which was published in the Federal Register on January 5, 2011. The proposed FIP includes a single element of the EPA's Regional Haze Rule, which is a BART determination for NOx controls at San Juan. The EPA's BART determination would require the installation of SCR on all four units at San Juan within three years of the final order, rather than the five-year implementation schedule the regional haze rules generally allow. The proposed FIP includes a limit for NOx emissions at San Juan of 0.05 lbs/mmBtu.

The public comment period on the EPA's proposed FIP ended on April 4, 2011. PNM believes that the EPA BART determination is legally and technically flawed and submitted written comments outlining the more significant flaws in the proposal. A copy of PNM's comments on the proposed FIP is attached as PNM Exhibit PJT-2.

If adopted as proposed, the EPA FIP would require the owners of San Juan to install SCR at a cost of between $750 million and $1 billion, which would substantially increase the cost of power produced by San Juan and have a significant impact on electricity rates in the communities served by PNM. These costs would be separate from, and in addition to, the more than $320 million the San Juan owners have already incurred in implementing a comprehensive set of emission control upgrades over the past five years. In addition, notwithstanding this significant investment, there would still be no perceptible improvement in visibility in federal Class I areas under the EPA proposal. Visibility protection is the singular goal under the EPA Regional Haze Rule.

The Final NMED Analysis

In February 2011, PNM submitted additional data to the NMED that included updated performance specifications for NOx control technology known as selective non-catalytic reduction ("SNCR"). PNM also provided NMED with an analysis of the impact to residential electric rates for PNM customers if SCR is required on all four units at San Juan.

On February 28, 2011, the NMED filed its petition with this Board for the adoption of a Regional Haze SIP for New Mexico. The NMED's proposed SIP includes a BART determination for NOx controls at San Juan that would require the installation of SNCR on all four units within five years. The estimated capital cost for installation of SNCR at San Juan is approximately $76.5 million. The NMED also proposes that the baghouses installed as part of the recent San Juan environmental upgrades constitute BART for particulate matter controls.

The NMED modified its initial BART determination based, at least in part, on the additional information provided by PNM in February 2011. The NMED was previously unaware of the magnitude of the impacts to electric rates in New Mexico flowing from the costs associated with SCR. The NMED SIP correctly notes that this cost is a very relevant factor in performing the cost/benefit analysis required under the EPA's BART Guidelines.

There were also important technical developments related to SNCR since PNM filed its initial BART analysis in 2006. It is now confirmed that SNCR can be successfully deployed as a retrofit on large sources such as San Juan. In addition, the SNCR, coupled with the recently upgraded NOx controls, will enable San Juan to meet the BART presumptive NOx emissions limit of 0.23 lbs/mmBtu for dry-bottom, wall-fired boilers burning sub-bituminous coal.

The NMED BART analysis recognizes that visibility in the relevant Class I areas in New Mexico is actually on track to improve. There are many factors that are contributing to this improvement, but the NMED noted that a reduced emission limit for SO_2 from San Juan would help ensure continued visibility improvement. San Juan's current SO_2 emissions limit is 0.18 lbs/mmBtu. The NMED proposes a lower SO_2 emission limit of 0.15 lbs/mmBtu for San Juan. Because of the recent environmental upgrades, San Juan is able to achieve lower emissions limits than currently specified in San Juan's air permit. In furtherance of the NMED's BART determination, PNM has filed an application with the NMED to modify San Juan's air permit to reflect this lower SO_2 emission limit.

PNM SUPPORT FOR THE NMED BART DETERMINATION

While PNM believes that the emissions controls recently installed at San Juan represent BART for the plant, PNM recognizes that the NMED BART determination and proposed SIP further the goal of additional NOx and SO2 emissions reductions. PNM supports the NMED Regional Haze SIP and related BART determination as an effective and comprehensive way to achieve better visibility while minimizing the cost impact to customers. The NMED's proposal would reduce San Juan permitted NOx emissions by 23 percent, or approximately 4,900 tons/yr, below current levels. Combined with reductions gained from the recent, major environmental upgrade, this would represent an annual NOx reduction of 51 percent, reducing allowable emissions by nearly 20,000 tons/yr from 2005 levels. Under the NMED plan, San Juan also would lower its permitted sulfur dioxide emission limits by voluntarily accepting a 0.15 lbs/mmBtu SO2 emission limit, reducing annual allowable SO_2 emissions by 3,690 tons/yr.

For these reasons, PNM supports the NMED Regional Haze SIP and accompanying San Juan BART determination as proposed in this proceeding.

This concludes my testimony.

PNM EXHIBIT PJT-1

Patrick J. Themig, Vice President, Generation

EDUCATIONAL AND PROFESSIONAL SUMMARY

Employment:

PNM Resources: 2008 – Present
Vice President, Generation
Executive Director, Generation
Director, Utility Performance Improvement

Sierra Pacific: 2006 – 2008
Director, North Valmy

MDU Resources: 2004 – 2006
Engineering Manager

PPL Montana: 2001 – 2004
General Manager, Operations

Dynegy/Illinova: 1975 – 2001
Managing Director
Director Engineering
Director Maintenance and Testing
Operations Director
Engineering Supervisor

Education:

BS, Mechanical Engineering Technology:
Southern Illinois University, Carbondale